



# CANA Energy Logistics Infrastructure (ELI)

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## At a glance

The CANA Energy Logistics & Infrastructure Market focuses on research, modeling, simulation, data analytics, and program/project management, providing solutions to Federal, State, Municipal, Defense and Commercial clients in the energy logistics and infrastructure market spaces.



## Return on Value

CANA's value in the energy industry is data informed decision making. In uncertain/unstable industry conditions CANA's value increases by enabling intelligent investments and decisions that enhance operational efficiency, optimize resource allocation, predict future trends, and effectively navigate complex systems integration.



**Chris Cichy**  
Director of Innovation & Strategy



ccichy@canallc.com



(951) 225-2419

## PRODUCTS & OFFERINGS



### Advanced Energy Research Toolkit (AERT)

A collection of constantly evolving tools, research techniques, analytical processes, talent, and expertise that CANA applies across the energy question space. This toolkit helps organizations both inside and outside of the DoD serve as energy thought leaders within their respective communities.

### NEXUS

An Artificial Intelligence based solution that enables defense planning for unmanned systems against manned or unmanned multi-domain threats.

### Synthetic Energy Insights Platform (SIP)

SIP is a cloud-based or native software solution that can intelligently manage power consumption for a single system, system of systems or network of systems.

## SERVICES & CAPABILITIES



### Energy Research, Analysis, and Synthetic Experimentation (RA&E)

- Emergent Technologies Research
- Energy Innovation Reports
- System of Systems (SoS) Analysis
- Energy Optimization Analysis
- Energy Simulation Packages



### Energy Projects and Productization

- System Integration
- Software Development
- Design Build
- AI/ML
- Basic and Applied Research
- Applied Analytics
- Program and Project Management

## APPLICATIONS & RESULTS



1

### eTHOR

Agile, rapid deployment of a tactical 5G AWS network deploying and extending 5G's low latency, high bandwidth capabilities to the expeditionary force enabling unmanned systems, artificial intelligence, and all domain command and control.

2

### OECIF AER

Development of a vehicle range model and a vehicle-to-grid-battery bank model. CANA wrapped both in a user-friendly dashboard, enabling forward base EV planners to quickly identify mission ranges and endurance limits for EVs under a wide array of planning factors. Separately, the dashboard informs users of the availability of EV battery power to back feed microgrids, thereby enabling more efficient use of generators.

3

### BOSEC Analysis

Greater understanding of the energy needs of the system and what factors have significant impact on the demand. Insights into the required energy availability at the edge of the battlefield.



# Defense Operational Energy Analysis

Solutions for Energy Research, Analysis, and Synthetic Experimentation



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## CHALLENGES



CANA's clients require a deeper understanding of the operational improvements and cost savings that lead to operational efficiency and result in satisfied budgetary limitations and sustainability goals. Our tools and analytical processes are purpose-built for each project and supported by custom software solutions to help clients make informed decisions and address energy-related challenges.

## SERVICES & CAPABILITIES



- Emergent Energy Technology Research
- Energy Innovation Reports
- Energy Network Assessments
- Stochastic Energy Process Modeling
- System of Systems (SoS) Analysis
- Energy Optimization Analysis
- Energy Simulation Packages
- Game Theory and Strategy Evaluations
- Energy Decision Analysis Support
- Course of Action Evaluations

## PRODUCTS & OFFERINGS



### Advanced Energy Research Toolkit (AERT)

A collection of constantly evolving tools, research techniques, analytical processes, talent, and expertise that CANA applies across the energy question space. This toolkit helps organizations both inside and outside of the DoD serve as energy thought leaders within their respective communities.

### Boutique Energy Software Solutions

CANA projects bring a team of experienced developers dedicated to providing powerful, project-specific software and user interfaces designed to empower CANA analysts or the client's own project teams. We specialize in creating energy software for organizations of all sizes, purposes, and organizational reaches. CANA's software development team works hand-in-hand with our analytics professionals to create something that is useful and meets varying user needs elegantly and creatively, thereby streamlining user experience and informing critical energy-related decisions.

## APPLICATIONS & RESULTS



## Return on Value

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### OECIF AER

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### BOSEC Analysis

The Balance Of Systems, Edge Compute (BOSEC) project centers on an energy economy model of edge computing capabilities related to AI-informed counter intrusion systems operating under varying warfighter conditions.



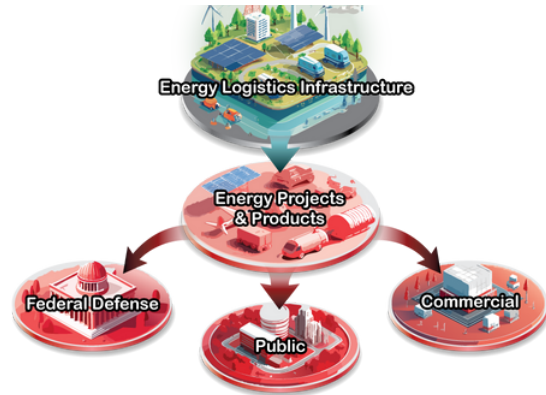


# CANA Energy Projects, Products & Services

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## AT A GLANCE

CANA's Energy Logistics & Infrastructure solutions focus on research, modeling, simulation, data analytics, and program/project management, providing solutions to Federal, State, Municipal, Defense and Commercial clients in the energy logistics and infrastructure market spaces.



## SERVICES & CAPABILITIES

### Energy Projects and Productization

- System Integration
- Software Development
- Design Build
- AI/ML
- Basic and Applied Research
- Applied Analytics
- Program and Project Management

## PRODUCTS & CONCEPTS

### Advanced Energy Research Tool Kit (AERT)

A collection of constantly evolving tools, research techniques, analytical processes, talent, and expertise that CANA applies across the energy question space. This toolkit helps organizations both inside and outside of the DoD serve as energy thought leaders within their respective communities.

### NEXUS

An Artificial Intelligence based solution that enables defense planning for unmanned systems against manned or unmanned multi-domain threats. NEXUS can stand alone as an energy-informed ISR analysis tool or integrate into applications including fires, intelligence, or force protection systems to provide an intelligent operational planning tool with respect to effects, cost, or energy.

### Synthetic Energy Insights Platform (SIP)

SIP is a cloud-based or native software solution that can intelligently manage power consumption for a single system, system of systems or network of systems. Taking a similar approach to software defined networks, SIP can forecast or sense power consumption in real-time and make intelligent decision suggestions that allocate energy smartly with respect to urgency of demand, mission priority, and other user preferences.

## APPLICATION & RESULTS



### eTHOR

Agile, rapid deployment of a tactical 5G AWS network deploying and extending 5G's low latency, high bandwidth capabilities to the expeditionary force enabling unmanned systems, artificial intelligence, and all domain command and control.

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*CANA is a business technology solutions company  
"Powered by CANA Analytics®." Our expertise  
provides logistics systems integration, applied  
analytics services & software solutions. CANA LLC  
strives to create an environment that allows our  
Team and Clients more time to focus on the things  
that matter most.*



(703) 317-7378



[www.canallc.com](http://www.canallc.com)



7371 Atlas Walk Way  
Gainesville, Virginia 20155

