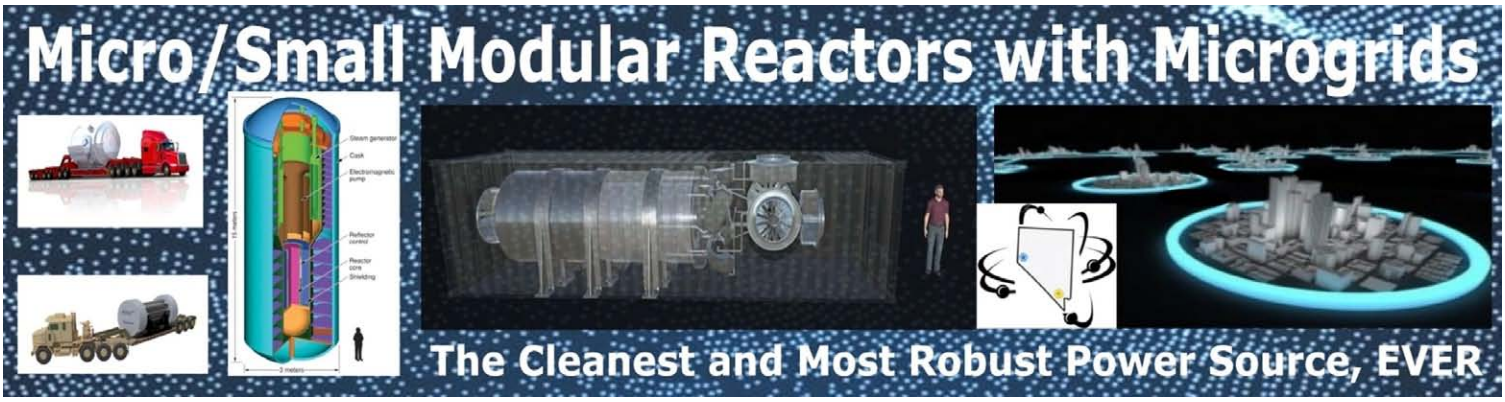
Leading the Las Vegas Region Defense Industry

https://ndia-snv.org/reactors-%2F-microgrids
from Jim Lint to Henry



Mission

The Assured Energy Division (AED) focuses on:

1) Informing the public, industry and government leadership about the revolutionary capabilities and clean power potential of Micro/Small Modular Reactors controlled by Microgrids.

2) Working with the numerous Pro-Nuclear Environmental Groups to inform them of the intent of this Division. Scroll down on https://en.wikipedia.org/wiki/Pro-nuclear_movement to view the current list of these organizations.

3) Educating the public and leadership about Microgrids, and how they are the solution to the vulnerabilities inherent with the existing National Grid system.

4) Showing how Micro/Small Modular Reactors in combination with Microgrids offer the best sources of clean, reliable & uninterruptible power possible for National Security and Commercial use.

5) Demonstrating how unreliable solar, wind, batteries and backup fossil fuel energy purchased over the

Grid cannot equal Microgrids powered by micro/small nuclear reactor systems.

6) Conducting technical events on the use of advanced robotics, high speed production lines and systems integration technologies established in the vast Nevada desert areas near the Nevada National Security Site could be used to safely, quickly and cost-effectively deliver mass-produced nuclear-powered Microgrids at steadily decreasing prices to domestic and global markets.

7) Such available desert areas and nuclear power systems could also be combined to install, generate and sell clean energy over the Grid to enable solar and wind farms to purchase it instead of buying fossil fuel power that degrades achieving clean air standards.

The AED is a forum for national leadership to engage with Nevada leadership and host national conferences to explore and feature the latest emerging Micro/Small Modular Reactors and Microgrid technologies being developed in the United States.

The initial goal of the AED is to facilitate implementation of America's first Modular Reactor and Microgrid capability at Creech AFB, about 45 miles Northwest of Las Vegas, to provide power 24/7/365, for two to three decades between refueling cycles. Such an extraordinary capability will enable Remotely Piloted Aircraft (RPA) operations to remain intact, even in the event that 'the grid goes down' for non-expected lengthy periods of time (weeks, months etc.). Chances are that if 'the grid goes down' for such a long a period of time, those RPA operations will be more crucial than ever for protecting America during such a lengthy outage.

The AED is a cross-talk voice between the Military, DOE, Micro/Small Modular Reactor and Microgrid Manufacturers, American Nuclear Society (ANS), State / Local Governments, and Supporting Business Interests. With such a wide-open scope of work to prove the utility of the Creech prototype implementation, one will have to demonstrate the maturation and reliability of Micro/Small Modular Reactors, their interface with the newly demonstrated Creech Microgrid, the Civil Engineering interfaces for installation, and the deployment of initial instrumentation to measure safety/operational parameters. Upon gaining confidence in the Creech operation, a second Military deployment location will be considered. This will open the door to multiple installations, mass production of systems, and much lower acquisition and support costs.

The AED is additionally well suited to help facilitate and coordinate the high volume of dialog between National Defense Industries, the Nevada National Security Site and the National Laboratories historically involved in nuclear technology R&D. Production of systems in Nevada could also be significantly enhanced from being a Nuclear Fuel Recycling that regains 97% of the spent fuel energy.

In short, Nevada is the perfect State for bringing the entire Micro/Small Modular Reactors controlled by Microgrids capabilities from a conceptual stage to actual implementation at the Nevada National Security

site, starting with the Creech AFB implementation. With follow-on installations at other critical defense sites, and with recycling/reusing all spent fuel to ~97% of its initial energy level via Recycling as mentioned above, and with establishing a Nevada Micro/Small Modular Reactor production line and operational services over the Grid, a paradigm shift in future clean assured energy becomes possible.

As the new and highly advanced power capabilities are demonstrated at Creech AFB, it can be duplicated, modified and licensed for use in the civilian sector.

Through parallel national security and commercial implementations, the 'one large national grid' is methodically transformed into thousands of more reliable and affordable Microgrids of Clean Power across the nation.

In the not so distant future, all types of fossil and renewable heat sources for generating power will become capable of being retrofitted using new advanced reactor and Microgrid technologies. This will permit modernization of power generation plants without having to replace much of anything except the source and type of heat used to generate steam to power the generators. This can help eliminate the risks of the 'deadly nightmare scenario' of 'what happens if the Grid goes down for months at a time'.

AED Focus Areas:

- Creating a wide variety of Subject Matter Expers (SMEs) for Micro/Small Modular Reactor and Microgrid product developments.
- Interface with Creech, State and National Leadership (Military, DOE and Civilian) to define the path forward, and gain active support within Nevada for all aspects of the ongoing Assured Energy Program.
- Focal point for all Defense and Commercial Industry involvements, hold regular cross-talk briefings, and conferences in Las Vegas that support this program.
- Insuring that all work being planned is consistent with the future vision and implementation as the capabilities multiply.
- Be the NDIA SME for Spent Fuel Recycling/interface with DOE, DOD, DHS and all other involved agencies.

NOV 15, 2018 MODULAR REACTOR SYMPOSIUM ARCHIVES

Objective

The AED works towards:

- Insuring the successful prototype implementation at Creech, and to constantly serve as a conduit of cross-talk to insure the best technologies are available to insure the greatest chance of success.
- The success of Creech serving as a model for reproduction at other Military installations.
- The establishment of a portable capability for the Military, thus eliminating the burdensome diesel generator requirements at remote sites, not to mention dangerous fuel transport.
- The implementation of a local Nuclear Fuel recycling center to insure all Military fueling needs are met for at least the next 1000 years.
- Work with State and local Governments to insure they understand the safety and reliability of the Military implementation, enabling them to in-turn be quickly agreeable for considering similar systems in the Civilian sector.
- Advocating the methodical transition of the extremely vulnerable USA Grid into thousands of distributed Microgrids powered by advanced nuclear power plants acting as local 'nuclear batteries' for decades and not requiring fuel resupply by surface transportation or pipeline connections.
- Help get the word out that Bottom Line of this effort is the safety and security of the United States, for without assured access to power, it's likely that the USA would cease to exist 'as we know it' in as little as one month if the 'grid went down' for such a period of time.

Division Contacts

(Note, the Acronym "SME" used below means Subject Matter Expert)

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