ENERGY SECURITY ACTION COMMITTEE *VISION*

FACTS: Electricity is the **lifeblood** of civilization. **Assured survivability** against all natural and enemy threats to Electric Grid distribution services and distributed power production must be among the **top** national, state and local authority priorities. Accordingly, our group of volunteer experts is proposing implementation of an updated "**COMMON SENSE ENERGY PLAN"** as outlined below.

- The U.S. business energy goal is "**Dominance**" in **all** global markets. Americans need this goal to include advanced nuclear power in **domestic** and **national security** energy statutes and policies that require "**abundant, affordable, assured, secure, clean, safe and Independent energy sources for American citizens, businesses, governments, national security and oversea facilities"**.

- Historic national experience shows that Executive and Legislative Branch leaders and Public Utilities Commissions often have conflicts of interest and fail to promote such comprehensive energy policies. We believe leaders need to promote power production and distribution options for fixed and transportable nuclear and small modular reactor-based (**SMR**) plants integrated with **MicroGrids** in addition to all other power systems. Such upgrades could enable regional and local power plants to continue to be available when major Grid power systems fail. T**ransportable**, sealed, **30-year-fueled**, **survivable, safe, pollution-free** micro nuclear power generation systems could create a future **paradigm shift** in this market. Such new power units could be "assured" to be operational, mobile, and ready to support **military deployments, DHS responses to national disasters**, and remote/off-Grid communities, businesses, mining and other developments.

- "**Abundant and Affordable**" energy means there will be **more than enough** low-cost electricity **always** available from the various types of NV power generation plants to satisfy future demands **from a growing population, expanding industries, and government services.** Before the year 2025, early versions of Small Modular Reactor-powered MicroGrids should be able to **slash electric bills by over 75%. Otherwise,** current statutes will impose skyrocketing rates from mandating massive use of solar and wind power that cannot replace fossil fuel power plants.
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- "**Assured**" Energy can be achieved when citizens & national security sites have **independent** access to **guaranteed** low-cost, safe, sealed and reliable power employing **resilient** generation systems, **reasonably-redundant** transmission lines, **hardened** transformer stations, **MicroGrid** control systems, backup spare parts and **independent** power systems for **national security facilities.** These upgrade criteria for the national Grid can help ensure future power outages are limited to short times from component failures, natural disasters and enemy attacks.

ACTIONS: Considering the above, this Committee envisions that NV and U.S. energy plans and policies need to be **modernized** so the Yucca Mountain Repository plan, national Grid defense plans, and national disaster plans are revised under the following 21st Century policies:

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1. Using the estimated $40+ Billion DOE funds accumulated from the states with nuclear power plants, Yucca Mountain should be opened as a Temporary Repository and begin to accept nuclear plant spent fuel rods into safe open storage at the former Atomic Test Site in 2019.
2. Construct a public-private **National Nuclear Recycling Plant** on the NNSS using the DOE funds and/or private investment funds and initiate recycling and selling of the output fuel products to current and advanced nuclear plants. Include in contract terms that a fair portion of the **billions** of profits from the recycling plant will be paid to **NV citizens**, NV Counties and the State of NV.
3. Establish a **Nevada National Laboratory** partnered with the Nevada Universities to conduct R&D for **advanced nuclear fuel cycles** and to assist U.S. industry to identify best practices for implementing **fixed and transportable MicroGrids powered by advanced Small Reactors**.
4. **Establish a commercial, Carbon-Free Energy Park near Mercury, NV** to **(a)** encourage industries to sponsor advanced Carbon Free Power **developments**, **(b)** install small reactor systems **manufacturing plants** near the source of new nuclear fuel supplies, **(c)** sell **leased** power systems and **lifetime support services** to global customers **(d)** Install a **Carbon-Free Power Production Farm of SMR-powered MicroGrids** to **sell** Carbon-Free electricity at the lowest available rates over the Grid, **(e)** Establish a **Center of Excellence** for **EMP defense systems and testing**, and (f) create a **Joint Hawthorne Defense Depot for Storing Grid War Readiness Spare Parts and Supporting Emergency Restoration of Grid Systems in all U.S. territories**.
5. Promote **citizen-driven, U.S. Energy** goals so city, rural, arctic, mountainous, and desert areas can **implement off-Grid industrial, habitable, mine-able, and farm-able communities** using distributed, sealed, walk-away safe, emission-free, job-creating, MicroGrid-based power systems.

We believe the combination of above program elements could create a compelling, common sense program for negotiating use of the **$40+ Billion** of DOE funds for Nevada to:

(a) use Yucca Mountain area for **recycling spent nuclear fuel** and eliminate **million-year** storage,
(b) implement **MicroGrids powered by Small Modular Reactors** to produce abundant, affordable, assured, safe, secure and independent sources of electricity,
(c) implement a **NV National RTD&E Lab** for Nuclear Fuel Cycles and SMR-powered MicroGrids**,**
(**d**) establish a **Carbon-Free Energy Park** to upgrade Nevada's economic future, and to
(**e**) **expand the Hawthorne Defense Depot** mission to establish a national **EMP Center of Excellence** and to become the **Joint/DHS-DoD-Commercial Depot for rapid restoration of Grid operations and secure storage of long lead time components required for repair.**

This approach could establish Nevada as the **National Center for Carbon Free Energy** including receiving a new federal mission for rapidly developing transportable nuclear power systems to respond to global power losses due to earthquakes, weather, EMP/cyber war attacks, and terrorism.

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