A nuclear future for Nevada
Think About It!

"The most unlikely goals imaginable
Are the ones we have to imagine doing"!

US Nuclear Energy

"A Viable Alternative-Think About It"

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A Nuclear Future for Nevada
Attitude adjustment based on awareness and knowledge

1. Overview

US Nuclear Energy is a foundation with the mission of **"Bringing Science to Citizens"** via an educational format directly from scientists and engineers to the public and public policy makers. Our world is in dire need for the development of "clean energy" vs. fossil fuels. Our mission is to help educate the public about today's nuclear energy, nuclear scientists and engineers in order for the public to be able to make informed decisions about today's nuclear technology.

Nevada's Land Mass: There is little doubt that Nevada's land mass is an extensive portion of United States real estate. For many years it has served ranchers, farming and mining the western flavor of life. In past decades it chose a course of gaming entertainment which has supported Nevada's growth for many years. Today, the gaming industry is facing competition from a number of other entities from Indian gaming to state lotteries, etc. Commerce-wise Nevada needs to develop new streams of economic growth and attract businesses with technical and semi-technical product manufacturing. Energy is a key factor for all manufacturing facilities and, depending on the product, those costs can range anywhere from 2 to 14% of an operational cost.

Economic Diversification: This should be at the top of the list for county, city and state governments to focus on. With our land mass availability Nevada should focus its interests on energy development and production for the western United States. It is in a unique position to develop solar, wind, geothermal and nuclear energy. Currently Nevada acquires nearly 50% of its energy out of state. By focusing on producing all of our energy in state we could fulfill our needs and sell energy out of state as a revenue stream.

Nevada's Logistical Position: With the infrastructure development that everyone talks about Nevada could provide energy to Oregon, California and Utah. We are very well-suited for such distribution provided we focus towards building it. The development of each of these sources can only be accomplished with a determined effort by the state and "business visionaries" willing to do more than talk the talk.

Educational Restructuring Opportunity: A move into technology industries cannot be done without a serious look at restructuring Nevada's educational course structure. High-tech companies need scientists and engineers as well as highly skilled vocational trades. Hundreds of companies are seeing their older workforce reach retirement. Nationwide, America is in need of 120,000 new scientists and engineers to redevelop our technology base. Many of these students will be needed in the energy development field.

Business unity participation: Just as our national politicians during the election process rave about how they are going to bring a new future to America's economic structure, Nevada's business community should set goals towards the same mission. With a state directive of large scale energy research, development and production of every business in the state stands to improve their growth. Business diversification of commerce is the safest way to stabilize business, state and public economies. How does a financial advisor recommend investment? "Portfolio diversification!"

2. National Discussions

The following are excerpts from an article in ANS Nuclear News, November 2008

Energy Secretary Samuel Bodman** presented this keynote address at the Nuclear Energy Summit--hosted by the secretaries of Commerce and Energy--held **October 8, 2008**, at the **U.S. Department of Commerce in Washington, D.C.

I thank you all for being here to discuss a central element of our nation's energy strategy: Safely and securely expanding civilian nuclear power. We need all stakeholders involved. And we certainly have challenges before us: Rapidly growing global demand for energy, high prices and an urgent need to produce and use energy in ways that reduce greenhouse gas emissions and do not harm our shared environment.

We all have a stake in growing our economy and creating good, well-paying jobs for all Americans . . . expanding nuclear power in this country goes to the very intersection of our energy security, our national security, and our economic security. We must expand access to safe, emissions-free, low-cost nuclear power in a way that responsibly manages spent fuel and reduces proliferation risks.

An aggressive move to renewable energy--like solar, wind, and geothermal . . . and advanced nuclear power. Any realistic approach to addressing our energy and climate challenges must acknowledge that new nuclear power plants must be built. And, I would tell you, this is a view shared around the world.

The United States must remain engaged in a leadership position. But maintaining such a leadership position requires us all to work together to remove the major impediments to getting new, next-generation nuclear plants ordered, sited, and eventually built and operational.

Using energy in ways that reduce greenhouse gas emissions . . . Demand more funding of nuclear science and R&D--from the government and academia, as well as the private sector.

Our success will depend on our ability to recruit, educate, and train highly technical personnel to work in the nuclear industry--from nuclear scientists and engineers to skilled craftspeople, construction managers, plant operators, and maintenance personnel.

Studies have estimated that a single new nuclear power plant requires approximately 400,000 cubic yards of concrete; 66,000 tons of steel, 44 miles of piping; 300 miles of electric wiring, . . . and 130,000 electrical components. The United States does not have the capability domestically to produce the ultra-large forgings (those that exceed 350 tons) to make major reactor components, reactor pressure vessels. In fact, we are dependent on one global supplier, Japan Steel Works. United States is still a global leader in nuclear power, more than any other nation.

We will not only produce more clean, safe nuclear power for our citizens and our businesses, but in the process we will provide a substantial boost to suppliers of commodities like concrete and steel, as well as to manufacturers of hundreds of components. And, we will create new jobs in this country--highly skilled, well-paying ones.

Some estimates in building new nuclear plants require more than 1400 jobs during construction, as high as 2400 jobs, 400 to 700 permanent jobs, which pay 36 percent more than average salaries of the local area.

An average nuclear plant generates total state and local tax revenue of almost $20 million each year, dollars that benefit schools, roads, and other infrastructure projects. And the average nuclear plant generates federal tax payments of roughly $75 million each year.

There are also federal loan guarantees totaling up to $38.5 billion for advanced clean energy projects, advanced power reactors and facilities that enrich nuclear fuel more efficiently.

In June of 2008, the Department of Energy submitted a license application to the Nuclear Regulatory Commission seeking authorization to build America's first national geological repository for spent nuclear fuel and high-level radioactive waste at **Yucca Mountain in Nevada**. The NRC has determined that the department's application is sufficiently complete to begin a full technical review and licensing proceeding over the next 3-4 years.

To deal with spent fuel and high-level radioactive waste on a permanent--not a temporary--basis and at the same time pursuing new technologies for recycling spent fuel that have the potential to significantly reduce the volume, thermal output, and radio toxicity of waste requiring permanent, geological disposal. This last point is crucial.

Through programs like the Advanced Fuel Cycle Initiative and the Generation IV Nuclear Energy Systems Initiative the Energy Department and our national laboratories are guiding the research and development activities necessary to establish the viability of next-generation nuclear energy systems--like high-temperature gas [-cooled] reactors--and to demonstrate the technical know-how to recycle nuclear fuel safely and securely.

Further demonstrating nuclear growth . . . we've received new loan guarantee applications covering 14 reactor projects (including 21 reactors total), as well as two applications for advanced enrichment facilities. Also 16 new applications for combined operating licenses for up to 25 new nuclear reactors have been filed with the NRC.

We need a supportive policy environment from the federal government including much-needed support from Congress . . . we need the active involvement of organized labor and academia. And we need continued leadership and investment from industry and our utilities.

Obama calls on Dr. Steven Chu:

Dr. Steven Chu has been appointed by the Obama administration to replace Sam Bodman as Secretary of the Department of Energy. This appears to be a scientific choice rather than a political choice as Dr. Chu is definitely a supporter of nuclear energy as part of our overall energy mix.

March 7, 2008
Nobel winner: Nuke power must be part of the equation

PALO ALTO, Calif.--Add Nobel Prize winner Steven Chu's name to the ranks of scientists who advocate turning to nuclear power as an alternative energy source.

“Nuclear has to be a necessary part of the portfolio,” Chu, the director of the Lawrence Berkeley National Lab, said during the annual economic summit organized by Stanford University.

Steven Chu: Nobel prize winner in physics, Chu, who also is professor of physics and molecular and cell biology at UC Berkeley, said nuclear is the preferred choice to coal, pointing out that coal releases 50 percent more radioactivity than nuclear power plants. “The fear of radiation shouldn't even enter into this, he said. “Coal is very, very bad.”

American Nuclear Society: Is an 11,000 member international scientific and educational organization of engineers, scientists and educators established in 1954. Its core purpose is to promote the awareness and understanding of the application of nuclear science and technology. Their interests include nuclear medical radiation technology as well as the energy sector. Many people don’t realize that radioactive isotopes are manufactured from spent nuclear fuel assemblies. Currently the U.S. does not manufacture these isotopes internally and most are imported from Canada.

The American Nuclear Society provides technical research and “position statements” on nuclear issues from sources worldwide. It is important to measure the credibility of such an institution when the public is researching the nuclear industry.

The EPA Radiation Standard for
Spent-Fuel Storage in a Geological Repository

Position Statement on Yucca Mountain November 2006: American Nuclear Society:

In August 2005, the U.S. Environmental Protection Agency (EPA) proposed a revised radiation standard for a geological repository that establishes one annual dose limit for the initial 10,000 years and another for the period between 10,000 and 1 million years in the future. The American Nuclear Society (ANS) opposes the 1-million-year regulatory period.

The proposed Yucca Mountain repository has yet to undergo licensing review by the U.S. Nuclear Regulatory Commission. *(This license request was submitted in 2008.)* Licensing review includes assessing the performance of the repository during the regulatory time period. The regulation requires that such an assessment provide “reasonable assurance” that the standard can be met.

The ANS believes that extrapolating beyond 10,000 years is not scientifically sensible and that while radioactivity and toxic hazard can be estimated for as many years as necessary, prediction of geological and climatological conditions is substantially less accurate for longer times into the future.

The ANS does not oppose the 10,000-year regulatory period because there is some basis for it. Human recorded history is not quite 10,000 years old, and one can conceive of 10,000 more years of human existence; however, longer periods are beyond understanding. Moreover, a 10,000-year period is consistent

with the management of similar hazardous waste (for example, the Waste Isolation Pilot Plant has a 10,000-year regulatory period for some of the same, long-lived radioisotopes), and 90 percent of the used fuel's radioactivity will be gone within 10,000 years.

Based on an overwhelming analysis and representation of the scientific community worldwide, every other country worldwide has made the decision to store their spent nuclear fuel to geologic repositories. With such a united consortium of opinions any further opposition by Nevada political representatives to the construction of Yucca Mountain Facility is counterproductive to Nevada's economic interests and to the people of the state.

Theodore Rockwell: Nuclear energy: *Not* a Faustian bargain, but a near-perfect providential gift
A nuclear veteran encourages those in the industry to get serious and put nuclear energy in the positive light it deserves.

The 33rd Annual World Nuclear Association (WNA) Symposium, held September 3–5, 2008 in London attracted a record-breaking 800 participants.

The following are excerpts from an article in ANS Nuclear News, November 2008

On September 4, WNA Chairman Andrew White, President and Chief Executive Officer of GE-Hitachi Nuclear Energy, and WNA Director General John Ritch, former Ambassador to the International Atomic Energy Agency, bestowed awards on three people chosen to represent the educators, the innovators, and the pioneers of the international nuclear enterprise. The awardees were, respectively, Alan Waltar, of Pacific Northwest National Laboratory and former head of the Nuclear Engineering Department at Texas A&M University; Jacques Bouchard, of the Commissariat à l'Énergie Atomique, and head of the Generation IV International Forum; and me, Theodore Rockwell, of Radiation, Science & Health and MPR Associates.

Other countries now seem to be more urgently intent than the United States on building nuclear plants . . . First, let me note that in the real world, no member of the public has ever been killed or seriously injured—or even exposed to a serious health threat—by a nuclear power plant or its fuel or waste, short of Chernobyl . . . a self inflicted incident.

The fact is, just since the Three Mile Island (TMI) incident in 1979, we have spent a billion dollars to build the case that a catastrophic nuclear accident is not merely improbable, but is physically impossible. We are protected from catastrophic consequences not by clever safety gadgets and procedures, but by the inescapable laws of nature and the known properties of the materials and processes involved.

The nuclear industry has demonstrated decades of nearly flawless performance and safety worldwide. Nuclear plants do not need more safety features. They need to be simpler and less expensive to build and to operate so that we can maintain that excellent record. We need to build thousands of them, as quickly as possible. Articles on powering the 21st century nearly always picture windmills. That's nonsense! If your first car is a Jaguar, should your second one be an oxcart? Nuclear energy is a near-perfect energy source. Its alleged problems are distortions of advantages. (For example, is the longevity of nuclear waste really a problem compared with non-nuclear poisons whose half-lives are infinite? Compared with the toxic waste from making solar collectors that never goes away?)

All ANS members should read and digest the society's recent Position Statement #82, *Nuclear Power: A Leading Strategy to Reduce Oil Imports.* It states, "As an example, if one-third of our vehicles were plug-in hybrids, a practical goal by 2020, we could reduce our use of oil for motor transportation by about 25 percent from today's levels, sharply reducing our needs for oil imports." And so we should move as fast as we can to power the world with the atom. We've seen and heard all the reasons why this can't be done very fast. But if we had all done what the French did, as an immediate response to the OPEC oil crisis of 1973, we wouldn't be having this discussion.

3. Yucca Mountain / Geologic Storage

Geologic Permanent Storage: For decades the political posture of the State of Nevada has opposed the Yucca Mountain site for a nuclear waste repository. This is not based on the scientific choice of deep geologic storage but primarily the NIMBY scientific opposition, Not in My Back Yard! There is no argument that worldwide deep geologic storage is the scientific choice and method all other countries with such materials are using, constructing or planning. With this degree of international acceptance it seems inconceivable that Nevada's political establishment continues to oppose the site. They cannot disprove the science for geologic storage, they cannot prove that Yucca is unsafe, nor can they prove there is any better site location than Yucca Mountain for the United States.

Unfortunately, opposition has always been political and not scientific. The sad part of this entire process is that it has never been a program to serve or protect the people of Nevada. The methods conducted by the Nevada Commission on High Level Radioactive Waste have been grossly misleading to the public. The commission has been unable to secure U.S. scientific and engineering "opposition research" concerning the Yucca Mountain site. Below is an excerpt from the commission's public testimony.

State of Nevada
Legislative Committee on High-Level Radioactive Waste
January 15, 9:30 AM
Legislative Building Room 3138
401 South Carson Street, Carson City, Nevada

This section of the video record commences at the 11:15 AM tape segment. Having ordered and reviewed this legislative video record I was amazed at this testimony, stating that the majority of Nevada's legal and scientific research opposition to the DOE's studies of the Yucca Mountain Project are being secured out of state and out of the country. The statements below are exact quotes from the state video record of this legislative committee meeting by Bob Loux, Nevada Director of Nuclear Projects.
Gary J. Duarte, Director, US Nuclear Energy

"As relating to the scientists and some experts, you might recall that many years ago we had sort of an informal agreement with the Department of Energy that the University System for the State of Nevada would sort of be a resource to the State and that DOE would look for their expertise somewhat out of the state and this was long before Ward's tenure. That agreement, informally was sort of violated by DOE in that they wanted to capture some of the scientists at UNR and UNLV and did so and we simply with the funds we had, many of these researches had to choose which of the other, we certainly couldn't share them in that many of the research results and data would be used by us to oppose the license or vice versa, ahh in so ahh we suspect the DOE also wanted to do that for other reasons other than simply the technical expertise

to essentially ahh engrain themselves a little bit into the research departments of these universities and so aah **we've been forced to find expertise elsewhere**, it's been difficult to find ahh scientists in these particular fields that aren't somehow affiliated with DOE or some other DOE contractors although we have found many who aren't and we have been looking to and have engaged several, many scientists in the UK for example ahh and other places throughout the world for example we're doing some of our corrosion work in China ahh simply because the resources aren't available to us in the United States or if they are there much more expensive than we can afford and we have found the expertise in particular, many of the scientists that we have engaged in the UK to be very very high quality, very familiar with the department of energy's program ahh looking at it from afar, and have provided a great deal service to us and will continue to do so, so that's principally where we've had to go ahh because of these circumstances". END testimony.

In regards to safe transportation, routes, containers, etc. after a while a logical mind has a difficult time focusing on bizarre statements by people and organizations reaching to any length to oppose a flawless nuclear waste transportation record over the past 40 years. For those who are unable to process the safety construction of a nuclear waste cask, it is an ANVIL, which makes it virtually indestructible in a "logical" condition of accidental or intentional penetration. If needed, plenty of studies have been conducted on cask design and construction. In respect to being a priority as a terrorist target, Homeland Security's assessment has put transportation casks at about 18 on the list.

4. Nuclear Plant Construction

Removing politics from science and engineering: We should understand that the scientific and engineering development of nuclear energy has never stopped throughout the world. Its "political opposition" in the United States has suffered greatly over the past 30 years due in part to serious misrepresentation of the truth of its science and safety track record. Somehow we have to base our future energy production on its science and engineering without being shuttled by politics and groups with unsubstantiated opposition.

Political vs. design-engineering timelines: We are at a crossroads of getting "home-grown" energy up and running as quick as possible, a directive that will change the economics of America. The Nuclear Regulatory Commission has new nuclear plant designs that are "pre-approved" for COL applications (Construction Operating License). The opposition's 15 year timeline to build new plants is simply misleading. When politics and science "stand united" we can build a new plant in four to six years. Today new plants are 85% "designed" before construction actually starts, much different from the early days. The requirement is that ALL, politics, science, and the public, have to be on the same page and willing to turn the page to build the plants. So, YES by all means sites, politics and the public have to be aligned in order to reach these construction goals but they can be done. GE Hitachi Nuclear has shown "Demonstrated Performance" in completing four Japanese nuclear plants on schedule.

The following are excerpts from an article in ANS Nuclear News, November 2008

Financial benefits of new nuclear plants: If the U.S. embarks on a program over the next 20 years to build 52 new 1,400 MW nuclear reactors, up to 350,000 new jobs and $46 billion in GDP would be created under an aggressive nuclear build program. Employment / value added benefits of the operations phase would be more that 95,000 jobs, 12 billion annual. Savings of $49 billion of fossil fuel imports, savings of 400 million tons of carbon dioxide emissions. 45,000 high-tech, high-value added manufacturing jobs would be created. Research and development . . . would generate substantial spillover benefits. The growth in nuclear

expertise and the associated manufacturing capacity that would flow from the investment program would position the United States to reclaim the lead in the global nuclear energy industry.

5. Plan the future today . . . build the future tomorrow

What if . . . Nevada built two nuclear power plants: With an NRC approved 1,400 MW plant Nevada could produce ALL of its electrical energy, internally eliminating our need to compete for power produced by out of state sources. The second could produce and sell electrical power to CA, OR, and UT. We can develop more geothermal energy in Nevada if its extraction costs are cost competitive and the same applies to wind and solar. With geothermal the extraction and "transmission" are "regional" in that those plants cannot be too far from their customer. Reno is fortunate to have a geothermal plant in the city but if "source locations" are far from metropolitan areas such plants will have to further develop a transmission infrastructure. If we make energy our focus, nuclear's known construction and operating costs may be able to assist with other renewable developments.

What if . . . Nevada built America's first commercial scale reprocessing facility: To begin with, people and politics in Nevada will find it very difficult to comprehend that nuclear technology could be built in Nevada. Fourth generation plants can be designed to operate in desert climates. The Palo Verde nuclear facility near Phoenix, AZ pays millions each year to use the effluent waste water. The design concept of the fourth generation reactors can use helium, lead and sodium-cooled fast reactors that do not require as much water for operation as the earlier water cooled designs.

The initial response to proposing to build a spent nuclear fuel recycling facility in Nevada will be pessimistic. Without some awareness of the potential technology, Nevada's government and the public will not be optimistic that it is possible. The science, engineering, design and construction of a reprocessing facility, is such a massive undertaking and needs to be left to the engineers and for us to follow their lead.

As citizens, businesses, the educational community, and service industries, it would be our mission to encourage the State of Nevada to establish a major focus to solicit the U. S. Department of Energy, nuclear industry and financial community that Nevada has a "unified collective interest" in the construction of America's first production size nuclear reprocessing facility. Such a project would only be possible with the "collective unity" of the state because Nevada is deficient in many of the areas of expertise that is needed by the nuclear industry for consideration to make such a commitment.

The following pages contain a very good overview design concept of an advanced recycling center by GE-Hitachi. It is a good read on the basic concepts and multiple process capacities of recycling as it can handle several types of high level radioactive materials. 1, 2, 3, GO!

In ten years these plants could produce *(direct estimates not counting support businesses, research, etc.)* approximately 18 billion in initial construction funds, full time employment of 5700 workers during construction, and 1650 plant operating workers after construction, $7.5 million in annual revenues, 60 million in annual state and local taxes and $225 million in federal taxes. These are ballpark estimates based on Two 1,400 MW plants and one reprocessing plant.

GE Hitachi Advanced Recycling Center
Solving the Spent Nuclear Fuel Dilemma

Disposition of Spent Nuclear Fuel (SNF) is an important consideration given the anticipated expansion of nuclear energy generation. New plants will face difficulty in gaining public acceptance unless there is a solution for the disposition of spent nuclear fuel that will be generated during operations.

The public is driving government policy towards emission reductions of greenhouse gases. A major source of greenhouse gas emissions is the CO_2 that is released when fossil fuels are used to produce electricity.

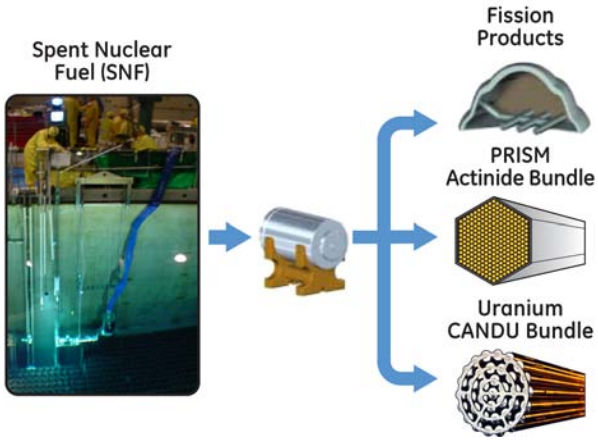

Figure 1: Spent Nuclear Fuel separation is accomplished using the dry Electrometallurgical process

Any attempt to solve these two major issues should focus on avoiding the creation of new concerns. Therefore, the solution should embrace public and worker safety, have a low impact on the environment and be economically viable. Safety, in the case of spent nuclear fuel, also includes limiting the possibility of diversion of materials that can make nuclear weapons (system must be proliferation resistant).

The Advanced Recycling Center (ARC) proposed by GE Hitachi Nuclear Energy (GEH) and its team of industrial companies including, Burns and Roe, Fluor, IBM and Lockheed Martin, will address the issues of spent nuclear fuel through recycling while reducing greenhouse gases emission from power production.

The ARC combines electrometallurgical processing and one or more sodium cooled fast burner reactors on a single site. This process produces power while alleviating the spent nuclear fuel burden from nuclear power generation.

The ARC starts with the separation of spent nuclear fuel into three components: 1) uranium that can be used in CANDU reactors or re-enriched for use in light water reactors; 2) fission products (with a shorter half life) that are stabilized in glass or metallic form for geologic disposal; and 3) actinides (the long lived radioactive material in SNF) which are used as fuel in the Advanced Recycling Reactor (ARR).

GEH has selected the electrometallurgical process to perform separations. The electrometallurgical process uses electric current passing through a salt bath to separate the components of Spent Nuclear Fuel. A major advantage of this process is that it is a dry process (the processing materials are solids at room temperature). This significantly reduces the risk of inadvertent environmental releases.

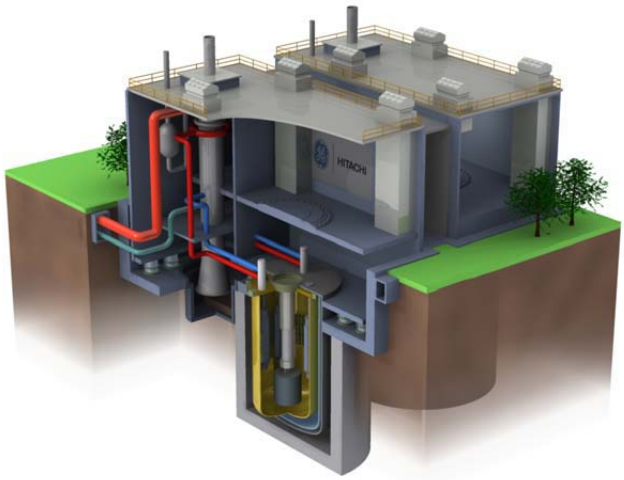

Figure 2: PRISM Reactor power block used to produce electricity from spent nuclear fuel.

Additionally, unlike traditional aqueous MOX separations technology, electrometallurgical separations does not generate separated pure plutonium making electrometallurgical separations more proliferation resistant. Electrometallurgical separations technology is currently widely used in the aluminum industry and has been studied and demonstrated in US National Laboratories as well as other research institutes around the world. The actinide fuel

(including elements such as plutonium, americium, neptunium, and curium) manufactured from the separations step is then used in GEH's PRISM (Power Reactor Innovative Small Modular) advanced recycling reactor to produce electricity. PRISM is a reactor that uses liquid sodium as a coolant. This coolant allows the neutrons in the reactor to have a higher energy (sometimes called fast-reactors) that drive fission of the actinides, converting them into shorter lived "fission products." This reaction produces heat energy, which is converted into electrical energy in a conventional steam turbine. Sodium cooled reactors are well developed and have safely operated at many sites around the world.

The ARC produces carbon-free base load electrical power. An ARC consists of an electrometallurgical separations plant and three power blocks of 622 MWe each for a total of 1,866 MWe. The sale of electricity will provide the revenues (private sector) to operate the ARC while supplemental income will be obtained from the sale of uranium (private sector) and the payment for SNF treatment (currently Government controlled).

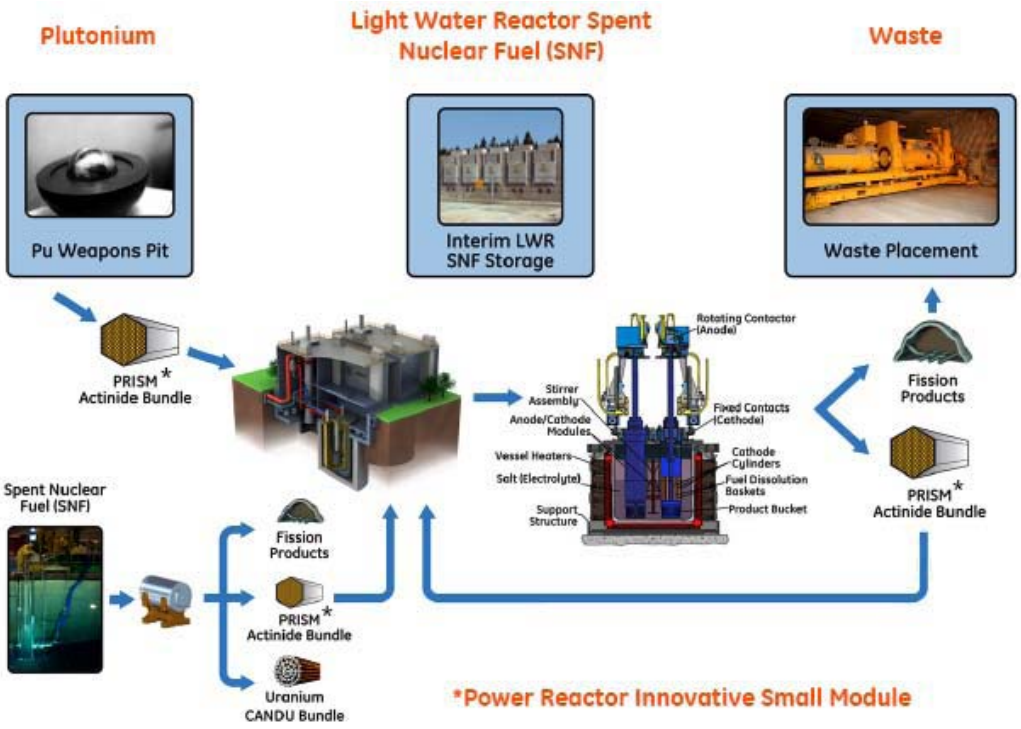

Figure 3: Implementation of a Fuel Qualification Reactor that uses excess weapons material as the initial core and recycled light water reactor spent fuel in subsequent operations.

Today, in the US there are approximately 100 nuclear power reactors in operation. Assuming that they each produce 20 tons of SNF a year for 60 years of operation, then the current fleet will produce 120,000 tons of SNF. 26 ARCs are capable of consuming the entire 120,000 tons of SNF. Additionally, they are capable of producing 50,000 MWe and avoiding the emission of 400,000,000 tons of CO_2 every year.

In order to gain the confidence of utilities and financial markets that the regulatory and resource issues (personnel and materials) can be solved, a first of a kind ARC must be built at "full-scale." A full-scale facility is a single reactor and 50 tons per year separations facility. This facility could be available as early as 2020. A well-managed US government sponsored program using US technology, US national laboratories and universities, and US companies can lead this process. The project will take approximately 10 years to complete. We estimate the total first of a kind cost for the Nuclear Fuel Recycling Center and a PRISM reactor (design, technology development, licensing, constructions, safety testing, etc.) is $3.2B thus requiring an average spend of $320M/yr with peak construction period requiring $700M. The first PRISM reactor could be fueled by excess Pu from the weapons stockpile, thus further reducing proliferation risk. This program will enable the US to lead the world nuclear community in demonstrating a sound approach to solving the problem of SNF, a solution that our national laboratories pioneered decades ago. The US taking action to build the GEH Advanced Recycling Center allows the US to capitalize on existing US funded technology and demonstrate US leadership in providing a safe, proliferation resistant method to close the nuclear fuel cycle.

6. Summary

The state of Nevada, like many other states in 2008, is dealing with severe economic shortages that effect every aspect of its services. Some of the problems that our nation is facing today are that we are “moving money”, “speculation funds” . . . “industries of valueless economic transference” are selling services of “doing things” but not PRODUCING anything. When you take your shoes to a cobbler for repair, he does something to “fix” your shoes, soles, heels, etc. He produces “repairs” to your shoes, adding value to his service and “reason” for his service costs. Isn’t inflation “unrealistic value” in the true sense?

Dialogues and debates over government / politics / economics / business / education / religion / technology / entertainment / media / health care / legal & judicial systems are permeated with lies, half-truths, deceptions, misrepresentations and deceit. In order to correct our course we “people” have to correct our moral truths.

The purpose of this document is to openly propose “what if” visionary thought about a direction and future for diversified commerce and economic stability by “producing something tangible-energy” needed and consumed by everyone providing an unlimited market potential.

With all of the derogatory, negative, impossible dialogue we face, how will we be able to “move” in this direction? Ask a cobbler.

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