Public Comments on the Fermi 3 Combined
License Application Environmental Report
14 January 2008

What type of electricity generating equipment should we the utility customers of DTE invest in? We must consider both the costs and the benefits of the proposal before us and alternatives to it. Let's start with the costs. In the case of the proposed Fermi 3 nuclear power plant, the true costs include not only the very large financial costs of constructing, operating, decommissioning, and storing the radioactive waste from the plant, but also significant safety, environmental, and health consequences. These costs should be compared to the costs of solar and wind alternatives.

What about the benefits? The benefits include not only the electricity produced, but also the jobs and the profits associated with this project. Nuclear power may be better for profits, but solar and wind will provide more jobs in Michigan.

The environmental assessment must address the well-known health effects of both low-level and catastrophic radioactive emissions from nuclear power plant operation. The environmental assessment must address the effects on the lake and ecosystem of the water cooling needs of the reactor. The current report does not address the projected scientific reality of dramatically lower water levels in Lake Erie. The assessment must address the potential for catastrophic failure due to operational error, terrorist attack, design flaws, structural failure, or other causes. The assessment must address the unsolved problem of long-term storage of radioactive waste from operation of the proposed nuclear reactor. These serious environmental and health costs outweigh any potential benefits of building Fermi 3.

But instead of dwelling on the limitations of nuclear power, let's focus on alternative ways to meet our electricity needs.

The Fermi 3 Combined License Application Environmental Report discusses wind and solar alternatives in Chapter 9 and discusses the projected growth of electricity demand in Chapter 8. Both chapters are incomplete and inadequate in their present form and reach the wrong conclusion.

The report must comprehensively evaluate an electricity future that combines conservation, energy efficiency, wind turbines, solar technology, power storage capacity, and transmission grid infrastructure.

Chapter 9 dismisses wind and solar technologies as unsuitable for base load generation because they are intermittent. But do we need to increase the base load, or do we need to increase the peak generation to meet the peak loads that happen with summer air conditioning? The report fails to consider the natural correspondence between peak solar electricity generation and peak air-conditioning demand. Solar electricity production in Michigan would be highest exactly when it is needed most during the summer months.

The report does not compare the dollar cost of short-term storage capacity and transmission grid infrastructure for wind and solar generated electricity to the costs associated with a Fermi 3 nuclear power plant. Nor does the report compare the environmental and health costs of the proposed Fermi 3 nuclear power plant to those of wind turbines, electricity storage, and transmission grid improvements.

The report claims that many acres that would be required for a solar electricity system, acres that would be lost to other uses. The report does not consider the possibility that solar panels could instead be installed on roofs of houses and other buildings with little loss of land to other uses.

Wind and solar technologies could meet the energy needs of southeast Michigan and would provide a much more cost effective solution than would the untested technology of Fermi 3. Where will the funds come from for building our new energy infrastructure? Those funds will come from future payments by utility customers. The very funds that DTE is proposing to invest in the Fermi 3 nuclear power plant could instead be invested in distributed solar panels connected to the grid and in wind turbine farms.

The report also dismisses solar generation because not much of it has been installed to date in Michigan. That could change quickly if the above funds were used to finance such installations.

What motivated DTE to propose the Fermi 3 nuclear power plant? It may not be as easy for DTE to control and profit from wind and solar electricity generation as from centralized electricity generation. Hence DTE as a corporation has less incentive to

invest in these potentially realistic alternatives. However, DTE customers have a strong incentive to invest in a clean, reliable, and safe alternative for Michigan based on solar and wind technologies.

Should we the customers of DTE assume the responsibility of paying for the costs of construction, operation, decommissioning, and long term storage of nuclear waste associated with the proposed Fermi 3 nuclear power plant? Can the residents and neighbors of southeast Michigan afford to reap the environmental and health consequences of nuclear power in their back yards?

We need to assess how the same funds could instead be used to develop and build a distributed wind and solar electricity generation, storage, and grid distribution system that could meet our electricity use needs with far less damaging environmental and health costs.

We need to ask whether there are less costly ways than the proposed Fermi 3 nuclear power plant to meet the electricity needs of the people of southeast Michigan, and we must assess who will bear the costs and who will reap the benefits.

Comments presented by
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To: Nuclear Regulatory Commission
From: Joan Mumaw, IHM
Date: January 14, 2009
Re: Environmental Impact of Proposed Fermi III

My Name is Joan Mumaw and I am the Vice-President of the IHM Sisters here in Monroe.

My concerns regarding the impact of the building of a new nuclear power plant on the site of Fermi II focus on the environment and the health of the community of Monroe.

While DTE intends to minimize environmental impacts, routine releases will occur in both liquid and air emissions.

Current radiation health standards as used by the EPA and NRC are referenced to healthy men. The "reference man" is a statistical model. He dates to 1974, but he's perpetually aged between 20 and 30 years old. He weighs 170 pounds, stands 5 feet 7 inches and hails from Western Europe or North America. And he represents everyone in the United States when it comes to setting regulations for acceptable standards of exposure to ionizing radiation.[1] What about pregnant women, children and the frail elderly? What studies have been done on the effect of sustained low-level radiation in fetuses, children and the elderly who have weakened immune systems? This is of special concern to us as there are 180 elderly residents at the IHM Sisters Motherhouse which is within the Fermi EPZ.

Routine radioactive discharges by nuclear power plants are deemed legal and judged to be safe by the NRC and the industry. These releases can include more that 100 different chemicals, including cesium-137, iodine-131, strontium-90 and tritium. Some of this is so radioactive it is stored on site. Any loss of cooling water from mechanical failure or terrorist attack would cause a catastrophe. Routine releases of lower level radioactive chemicals into the water are done in order to relieve pressure in the containment area and to limit the presence of radioactive and corrosive chemicals that damage reactor parts. The discharge for Fermi is very close to the water supply for the county. Not all radioactive isotopes can be filtered from the water prior to its release.

Fermi II, after an accident at the reactor on Christmas Day, 1993, released over a million gallons of radioactively contaminated water into Lake Erie.

Other chemical releases are made into the air. By breathing in radiation from the air, or drinking water that is contaminated, we ingest these chemicals. They in turn release fast moving sub-atomic particles into our bodies that smash into and break molecules causing cancer, birth defects, and genetic mutations. Radioactive iodine aims for the thyroid, strontium goes for the bones and tritium behaves like water dispersing throughout the

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[1] Enszer, Julie R.,'Reference Man' May Lose Radioactivity Modeling Job, Women's E News, November 13, 2007

body and entering cells where it can disrupt DNA. Tritium cannot be filtered. What studies have been done on the long term effect of tritium which is released into the air and water by nuclear power plants?

Fermi III will be located close to a coal firing plant which emits particulates that are very dangerous to our health. Actually, scientists contend that people are exposed to higher radiation doses living near a coal-fired plant than living near a nuclear power plant. What studies have been done on the interaction of radiation emitted from nuclear power plants with that produced by coal-fired plants. Is it true that the radiation bonds with particulates from the coal-fired plant which are then ingested by humans and animals causing damage to our health? What research has been done in Monroe County on the possible impact of radioactive releases into the air from Fermi II which is close to a coal firing plant? Wouldn't this information be pertinent for the environmental analysis for Fermi III?

The thing about radiation is you can't see it or smell it so it is difficult to provide evidence of its presence as a pollutant. But it does accumulate in body tissue and may cause damage to the structure of DNA.

The National Academy of Science's National Research Council in its report on the health effects of radiation exposure, states that the preponderance of scientific evidence shows that exposure to radiation, at even barely detectable doses, can cause DNA damage that leads to cancers, especially in fetuses and children. There is no threshold of exposure below which low levels of ionizing radiation can be demonstrated to be harmless or beneficial. The health risks, particularly the development of solid cancers in organs, rise proportionately with exposure.[2]

What is not fully appreciated is that these chemicals do not do their worst damage by exposing people to radiation in the environment. Rather the real damage is done through ingesting them through breathing, drinking and through the food chain, especially through fresh milk and other dairy products, concentrating in key organs like the lung, thyroid, bone marrow and the female breast. These internal radiation doses are especially harmful to infants in the womb, children and older people with weaker immune systems.

In Monroe County, the cancer death rate is 10% above the national average. Cancer mortality in children, who are most susceptible to radiation, soared from 21% below the US average in the 1980s to 45% above the national average in 2005![3] What studies have been done in Monroe County on the incidence of cancer, especially in children, and possible causes? This is of concern to IHM Sisters, many of whom spent several years in Monroe studying and teaching in local schools. Several of these women are undergoing treatment for cancer.

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[2] BEIRVII: Health Risks from Exposure to Low Levels of Ionizing Radiation, National Academies Press, 500 Fifth Street, NW, Washington, DC 20001;

[3] US Centers for Disease Control and Prevention, http://cdc.wonder.gov.underlying cause of death

Health and environmental policies have long observed the "precautionary principle" – if safety is uncertain, the responsibility falls to the proponent of a project to prove that a project is safe.

The principle developed at the Wingspread Conference in 1998, attended by an international group of scientists, government officials, lawyers, labor leaders and environmentalists formalized and made explicit the precautionary concept adopted by the United Nations in 1992. It asserts that before using a new technology or starting a new activity, there is a duty to take anticipatory action to prevent harm. It also declares that the responsibility for proof of harmlessness rests with the proponent, rather than the public.[4]

Can you, the NRC and DTE assure us that Fermi III will be safe? Can you assure us that the health of the community is not being and will not be compromised by the inevitable release of radioactive contaminants into the air and water?

Please do not rush to build an expensive and quite possibly harmful nuclear reactor until all the health issues are studied by independent researchers and the public is informed of any risk.

Thank you,

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[4] Wingspread Conference, Racine, WI, January 1998.

NRC HEARING: ENVIRONMENTAL IMPACT SCOPING PROCESS

GOOD AFTERNOON. MY NAME IS GREGORY PITONIAK AND I AM HERE TO SPEAK AS THE CHIEF EXECUTIVE OFFICE FOR THE SOUTHEAST MI COMMUNITY ALLIANCE, COMMONLY KNOWN AS SEMCA. SEMCA IS OFFICIALLY DESIGNATED BY THE STATE OF MI TO SERVE AS THE MI WORKS AGENCY (MWA) FOR MONROE AND WAYNE COUNTIES, EXCLUDING THE CITY OF DETROIT, UNDER THE FEDERAL WORKFORCE INVESTMENT ACT (WIA).

AS THE MI WORKS AGENCY, OUR PRIMARY RESPONSIBILITY IS TO ASSIST THE RESIDENTS OF OUR REGION WITH OBTAINING EMPLOYMENT. AND TO HELP THEM ACHIEVE EMPLOYMENT IN HIGH DEMAND OCCUPATIONS AND/OR GROWING

INDUSTRIES, WE UTILIZE STATE AND FEDERAL RESOURCES TO PROVIDE THEM WITH THE FUNDING FOR RELEVANT TRAINING.

IN THE CURRENT CHANGING ECONOMY, OUR WORKFORCE HAS EXPERIENCED A SUBSTANTIAL LOSS OF JOBS AND FIND THAT THEIR CURRENT SKILLS MAY NOT MATCH THOSE NEEDED IN THE JOBS THAT ARE CURRENTLY AVAILABLE. CONSEQUENTLY, THE UNEMPLOYMENT RATE IN OUR REGION IS AT 20 YEAR HIGHS, WITH MONROE CO. AT 9.6%. WAYNE CO. INCL. DETROIT AT 10.6% AND LUCAS CO. OHIO, INCL. TOLEDO AT 9.2%. IT IS IN THIS CONTEXT THAT I APPEAR BEFORE YOU TODAY.

I AM STRONGLY URGING THE NRC TO INCLUDE IN THE SCOPE OF THE ENVIRONMENTAL IMPACT STATEMENT FOR THE FERMI 3 NUCLEAR POWER

PLANT A FULL ANALYSIS OF THE ECONOMIC BENEFITS OF CONSTRUCTING SUCH A PLANT IN OUR REGION. FROM AN ENERGY PERSPECTIVE, THE PROPOSED NEW PLANT WOULD HELP ASSURE THAT THE ENERGY NEEDS OF OUR REGION WILL BE MET FOR DECADES TO COME—AND ECONOMIC GROWTH CLEARLY CANNOT BE SUSTAINED UNLESS AN ADEQUATE, REASONABLE ENERGY SUPPLY IS AVAILABLE.

EQUALLY IMPORTANT, THE JOBS CREATED BY FERMI 3 WOULD BE A SIGNIFICANT BOOST TO THIS REGION AND STATE. DURING THE CONTRUCTION PHASE, THE NUCLEAR ENERGY INSTITUE ESTIMATES THAT 2,400 CONSTRUCTION JOBS WOULD BE CREATED. AND THEY SAY A PLANT OF THIS SIZE WOULD REQUIRE DTE TO ADD 700 PERMANENT EMPLOYEES. AND WE KNOW HOW REAL THESE JOBS

ARE: DTE CURRENTLY HAS ABOUT 2,000 EMPLOYEES IN MONROE CO. ALONE. NONE OF THESES FIGURES SPEAK TO THE TREMENDOUS # OF SPIN-OFF JOBS CREATED BY THE BUSINESSES THAT WOULD SERVE THE PLANT AND ITS EMPLOYEES.

BEFORE I CLOSE, LET ME REASSURE YOU THAT THIS REGION KNOWS THE IMPORTANCE OF PROVIDING OUR WORKFORCE WITH THE SKILLS NECESSARY TO OBTAIN EMPLOYMENT IN THE ENERGY INDUSTRY. MANY OF OUR LAID-OFF WORKERS HAVE WORK EXPERIENCE OR SKILLS THAT MAKE THEM IDEAL CANDIDATES FOR RETRAINING IN ENERGY INDUSTRY OCCUPATIONS. AS I AM SURE YOU WILL HEAR IN THE TESTIMONY OF OTHERS, MONROE COMMUNITY COLLEGE AND OTHER INSTITUTIONS ARE ALREADY HEAVILY INTO ENERGY OCCUPATION TRAINING AND CONTINUE TO WORK WITH DTE AND

OTHERS TO ASSURE THEIR PROGRAMS ARE RESPONSIVE TO THE SPECIFIC CURRENT AND FUTURE NEEDS OF THE ENERGY INDUSTRY. AND WE AT SEMCA PLACE A HIGH PRIORITY ON ENCOURAGING CAREERS IN THE ENERGY FIELD AND PROVIDING TRAINING FUNDING FOR APPROPRIATE CANDIDATES.

IN CONCLUSION, AS THE NRC PROCEEDS WITH THE ENVIRONMENTAL IMPACT ANALYSIS FOR THIS PROPOSED PLANT, I IMPLORE YOU TO INCLUDE A COMPREHENSIVE ANALYSIS OF THE POTENTIAL ECONOMIC BENEFITS IT WILL GENERATE FOR MI AND OUR REGION. THIS IS CLEARLY AN ESSENTIAL COMPONENT TO ASSURE BALANCE IN YOUR FINAL CONCLUSIONS ON THE COSTS AND BENEFITS OF THE PROPOSED PLANT. THANK YOU.

Meeting with the NRC. January 14th, 2009
re: DTE License application for Fermi 3: Environmental issues.

Thank you for the opportunity to speak. My name is Kathryn Challis-Barnes.

My Father was a Captain in WW2 and my Mother is a RN. Unlike previous generations of our family, my parents and I have all had cancer. My Father passed away from it, and my Mother is currently hospitalized.
I know the horrible nightmare of a cancer diagnosis. Living under the shadow of that debilitating, painful, and life threatening disease is becoming an epidemic.
To expose a population to the threat of that disease is a crime.
Dr. Sternglass, who is doing a large project to analyze radioactive elements stored in baby teeth, is convinced that more that any other factor, radiation is the cause of the cancer epidemic. Main radiation factors include fallout and nuclear reactor emissions.

Nuclear reactors create radiation. The worst scenario is a large explosion such as Chernobyl. However, nuclear reactors *routinely* emit radiation into the atmosphere by way of releases···i.e. gaseous and thermal. Since, like pesticides, radiation is bio accumulative, and enviro accumulative, there is no safe measure for repeated emissions and exposures. Like pesticides, radiation is carcinogenic and mutagenic. It is also tetrogenic and is a feticide. The children of Hiroshima and Chernobyl are a tragic testament to the destruction of DNA by radiation.

Workers at nuclear power plants face increased risks of exposures to radiation, especially when there are " accidents." Recent accidents have been the collapse of a road in Covert. A car fell through the road, broke cables, then washed downstream in the flooded Brandy-wine Creek. Embrittled Palisades was left

without communications while Verizon workers tried to sift through the ice, mud and water to fix the severed cables. At DC Cook a rotor blade spun off, spilling fuel and causing a fire. Firemen spent hours trying to stop the blaze. That facility is shut down and over 300 engineers are reportedly working on the problem. In Vermont, a cooling tower collapsed. The list is of nuclear reactor problems is endless.

Internal sabotage may be another issue. Palisades has had repeated incidents over the decades. Safety levers were glued down and recently workers were locked in the reactor until the next shift arrived. Workers were unable to phone out for help (this is before the flooding incident). Fermi3 and any other new nuclear reactors may face internal problems. Even with employee screening, things can happen.

In the 1990s, " The Day they almost lost Detroit" , Fermi had a near melt down, and the plant was flooded with water to cool it. The contaminated water was released into Lake Erie despite efforts to stop it
We are always a heartbeat away from a Chernobyl. To think that can not happen here, is ignorance and arrogance.

At an environmental conference I attended, Dr. Helen Caldecott gave a dramatic slide show of the results of Three Mile Island. Nature has mutated in the areas surrounding the nuclear power plant. Dandelions have three heads; animals were born with extra appendages. Women miscarried. Nothing will ever be the same. How precious is life? Ask a Mother who has lost her baby. It is unconsciable to expose a population to the risks of Nuclear reactors.

Once DNA is destroyed, there is no return. Whole lineages of families end.

Swami Sri Yukestwar authored " *The Holy Science.*" Ancient Yogi beliefs recognize the atom, long before it was perceived by Western science. It was called the essence of vibratory matter. Without God holding the Creation together, atoms would separate, the Universe explode.

Splitting the atom is a destructive force. Nuclear reactors are linked to plutonium production which is used to make atomic bombs. By their mere existence, nuclear reactors pose a continual terrorist threat and destabilize world peace efforts. There is no way to make them terrorist target free.

It is to the credit of the NRC that they have recently been more vigilant in the security factor and have terminated security people that have not been doing their jobs and also began a program to track radioactive materials, or " loose nukes" . However, efforts may come too late and threats go far beyond conceivable scope. This is also an environmental issue because if a terrorist action occurs, environmental contamination will ensue.

To locate a nuclear reactor near a large population is to risk the lives of those people to the possibility of a major nuclear accident or terrorist strike. To force people to live in the shadow of their demise is a crime.

Nuclear reactors cause thermal pollution, and kill fish. They also can leak elements such as tritium into the groundwater. Radioactive elements cause cancer.

The USA is in deep recession. Many have lost their homes and jobs. Who will pay for Fermi? Will Detroit Edison pay for it all? I doubt it. Every nuclear facility that exists has been subsidized by taxpayers. The reactor of Fermi 3 is planned on being built in France, i.e. more job outsourcing. Instead of sinking money into the nightmare of problems of the nuclear industry, we should be

investing in safe, renewable technologies that will make our country safe, make energy dependable, and strengthen the economy. This point should make sense to anyone, even to those who may dispute my points on health issues and the essence of the atom etc.

Lastly, my question is: Where will the nuclear waste go? So far, there has been no answer to that. It is not right to dump nuclear waste on Indian land. It is not safe to transport it. It is not safe to store it. There are a multitude of unsolved problems in this huge topic. (i.e.Cask 4 with bad welds at Palisades, beach contamination in Wisconsin where a cask blew its lid off, Yucca Mt. earthquake fissures, flooding, overturned semis spilling radioactive waste in Arizona etc.) An individual in Kalamazoo County stored barrels of radioactive materials and other toxins on his land. Now authorities are trying to clean up the mess.

To sacrifice the Great Lakes, to endanger entire populations, to create economic shortages, to allow corporations to get away with bankrupting the country for their own private greed, is a crime. We must not allow it. We must not allow another Fermi nuclear reactor or any other nuclear reactor. Unsafe, aging nuclear reactors must be decommissioned and replaced by wind, water(hydraulics, not dams), geothermal and solar power.

At a previous meeting a NRC spokesperson stated the agency is not for or against nuclear reactors. It is a regulatory agency with the purpose of watch-dogging them. Do you really need another problem? What is already here is not being watched enough….that is not humanely possible.

The list of problems with the nuclear industry is limitless, and increases as nuclear reactors age and continue to operate long past their intended use. The answer is not to build replacements. It is false, arrogant pride and ignorance to think that there is

some improved model that will solve all the problems. France has a plethora of unsolved problems with nuclear reactors. Fermi 3 is off to a bad start.

We are not separate from our environment. We live in it, and are dependent on it. Ecosystems overlap and intertwine in a miraculous, prolific multitude of ways, linking all life forms. When the environment is threatened, all humanity and future generations are threatened.

It is my demand that the application for Fermi3 and all other new nuclear reactor applications be denied and that all existing nuclear reactors be shut down permanently.

Thank you for this time to speak.

Kathryn Barnes
Don' t Waste Michigan
Sherwood Chapter

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January 14, 2009

via hand-delivery at today's NRC public meeting regarding Fermi 3

to: US Nuclear Regulatory Commission
Washington, DC

Gentlemen/Ladies:

I am an elected Trustee on the Frenchtown Charter Township Board and may be submitting comments on my own behalf prior to the comment deadline, which I understand is February 9, 2009.

At this time I have the following requests and questions:

(1) I understand that at this time DTE/Detroit Edison and NRC documentation regarding the Fermi 3 project is available for public review at only the main branch (Ellis Branch) of the Monroe County Library. Fermi 2 is in Frenchtown Charter Township and I understand that the DTE/Detroit Edison proposal is to build Fermi 3 next to Fermi 2. The main branch of the Monroe County Library is not in Frenchtown Charter Township. However three other branches of that library are. Could you add those three other branches and the Frenchtown Township government center to the list of locations where Fermi 3 environmental review and other documentation will be available for review? Their mailing addresses are shown below.

(2) When does Fermi 2's current operating license expire?

(3) How much spent fuel is stored at Fermi 2 now and how much will be stored at Fermi 2 by the expiration date of Fermi 2's license.

(4) Where will Fermi 3's spent fuel be stored if the Nevada federal government storage facility is not built in the near future?

(5) What will be the annual rate of accumulation of spent fuel from Fermi 3?

(6) Will emergency evacuation issues be part of the environmental review? If yes, in what detail?

Respectfully, Hedi Kaufman

Listing of proposed additional sites for Fermi 3 documentation:

Frenchtown Charter Township Hall
2744 Vivian Road
Monroe, MI 48162

Robert Vivian Branch
Monroe County Library
2664 Vivian Road
Monroe, MI 48162

Blue Bush Branch
Monroe County Library
2210 Blue Bush Road
Monroe, MI 48162

Frenchtown Dixie Branch
Monroe County Library
2881 Nadeau Road
Monroe, MI 48162

(7) I request an extension of the public comment deadline, 30 days beyond Feb 9.
(8) Is the water intake for Frenchtown + Monroe considered in the environmental review?

Statement to the Nuclear Regulatory Commission
Meeting on the Environmental Report
Detroit Edison Application to build Fermi III
January 14, 2008

I am Sister Margaret Ann Henige, a member of the IHM Sisters of Monroe.

The United Nations Environment Programme, the International Labour Organization, the International Organisation of Employers and the International Trade Union Confederation published a report this past September on green jobs.

The report notes that more than 2.3 million green jobs have been created in recent years in the renewable energy sector.

Some 4 million direct green jobs based on improving energy efficiency already exist in the United States. Buildings could represent a future source of many more green jobs.

There are substantial green employment opportunities in retrofitting diesel buses to reduce air pollutants.

Given the economic crisis in the United States and the particularly difficult conditions in southeast Michigan, I'm wondering about the potential jobs that would emerge from Fermi III in a line-up with employment potential of green jobs.

- How many jobs would be created to design, construct and operate Fermi III?
- What are the salaries and tax revenues associated with those new jobs?
- How many workers would come from Monroe and how many would be brought in from other areas?
- What is the hiring timeline?
- How long would the jobs last?
- How many jobs would an equal investment in renewable energy create?
- Where would these renewable energy workers come from and how much income would be generated?
- How do nuclear and renewable technologies compare regarding capital and labor intensity?

Let's not leave the answers to these questions up to the company that has a vested interest in moving Fermi III quickly through the NRC application process.

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Statement for Fermi 3 Environmental Scoping Meeting

January 14, 2009

Joe Lavelline, Chairman Michigan ANS

My name is Joe Lavelline and I am the current Chairman of the Michigan Chapter of the American Nuclear Society and also a Fermi 2 employee. The American Nuclear Society is a not-for-profit, international, scientific and educational organization of nuclear professionals. The core purpose of ANS is to promote the awareness and understanding of the application of nuclear science and technology.

I wish to offer strong support for the Fermi 3 project on behalf of the membership of the Michigan Chapter of ANS. The Fermi 3 Project offers a unique opportunity to the people of the City and County of Monroe, as well as the state of Michigan as a whole. The benefits of the proposed construction of Fermi 3 are numerous. They include:

1. Increased electrical generation capability necessary to improve and sustain economic growth.
2. Increased energy independence and power source diversity for the state (and country as a whole).
3. Addition of many good paying jobs to the Monroe area for plant construction and operation.
4. Additional economic activity generated by support business for the facility.
5. Increased tax revenues for the county and local municipalities from increased property tax base.
6. Deployment of a safe, efficient, and environmentally friendly technology.

Since the focus of this meeting is environmental issues, I want to say a few words in regard to this matter. The society's members care deeply about being good stewards of the environment. Many of our families and friends live in close proximity to the Fermi site (I, myself, live approximately 5 miles away in the City of Monroe). We breathe the same air and drink the same water as the public at large and, therefore, take environmental issues very seriously. One cannot read a newspaper or watch a television news program without seeing references to the desire for a decreased reliance on carbon-based fuels (for national security and environmental reasons, to name a few); the Fermi 3 Project provides a step in the right direction towards achieving this goal. Indeed, many in the environmental movement who have been skeptical of nuclear power in the past are now advocates for its deployment as a part of a diversified energy portfolio.

Finally, on a personal note, as someone who has lived the vast majority of his life in the State of Michigan and is the son of a father who worked most of his career for automotive component suppliers, I have heard and been a part of discussions about the diversification of Michigan's economy since a very early age. Unfortunately, I feel that this has just been "talk" for far too long. The Fermi 3 project represents an opportunity for Southeast Michigan to take a significant, tangible step toward economic resiliency in the future.

Thank you for allowing me to speak on behalf of the Michigan Chapter of the American Nuclear Society at this forum.

Statement to the Nuclear Regulatory Commission
Meeting on the Environmental Report
Detroit Edison Application to Build Fermi III
January 14, 2009

My name is Nancy Seubert and I coordinate the Justice, Peace and Sustainability Office of the IHM Sisters here in Monroe.

I am concerned about the larger financial risks associated with a new nuclear power plant in our community.

The distinguished physicist and chief scientist of Rocky Mountain Institute, Amory Lovins, and research analyst Imran Sheikh published a report last year entitled "The Nuclear Illusion." The authors price electricity from a new nuclear power plant at 14 cents per kilowatt hour and that from a wind farm at 7 cents per kilowatt hour. Both include the costs of fuel, capital, operations, maintenance, transmission and distribution.

But in addition to its 14 cents per kilowatt hour, nuclear power requires funding for disposing of radioactive waste, for insuring plants against an accident, and for decommissioning plants when they wear out. These added costs are shouldered by taxpayers.

The Price-Anderson Act guarantees utilities protection against 98 percent of nuclear-accident liability. All U.S. utilities refused to generate nuclear power until the government provided this liability limit.

Lester Brown, the founder of Earth Policy Institute and prolific author, calls the economics of nuclear power "flawed."

"The collective cap on nuclear operator liability is $10.2 billion," he writes. "This compares with an estimate by Sandia National Laboratory that a worst-case accident could cost $700 billion. Anything above $10.2 billion would be covered by taxpayers." If utilities need this kind of protection, shouldn't taxpayers have it as well?

According to Kristin Shrader-Frechette, O'Neill Family Professor in the Department of Biological Sciences and Department of Philosophy at the University of Notre Dame, Standard and Poor's downgrades the rating of any utility that wants a nuclear plant. "Forbes magazine recently called nuclear investment 'the largest managerial disaster in business history,' something pursued only by the 'blind' or the 'biased'."

The Nuclear Energy Institute reported to the US Department of Energy that "100 percent loan coverage by taxpayers is essential. Wall Street refuses to invest in nuclear power because the plants are assumed to have a 50 percent default rate. The only way that Wall Street will put their money behind these plants is if American taxpayers underwrite the risks."

Of 132 nuclear plants build in the U.S. (about half of the 253 originally ordered) 21 percent were permanently and prematurely closed due to reliability or cost problems. Another 27 percent have completely failed for a year or more at least once.

Michael Totty writes in the June 30, 2008 issue of The Wall Street Journal, "The entire nuclear power industry is vulnerable to the safety standards of its worst performers, because an accident anywhere in the world would stoke another antinuclear backlash among the public and investors."

Cost of the Yucca Mountain nuclear waste repository was estimated to be $58 billion in 2001. In 2008 the estimate had soared to $96 billion.

Because of escalating costs, the longer the construction lead time, the greater the business risk that a proposed facility will exceed its estimated cost. Solar, wind and gas have much shorter lead times than nuclear.

Investment in misguided attempts to stimulate the nuclear industry is money that could have gone to producing cheap renewable electricity like wind, solar, and geothermal, not to mention conservation and efficiency efforts.

Besides their lower costs for construction and operation, investments in conservation, efficiency and renewable energy provide ongoing jobs for solar-panel installation, retrofitting buildings that are leaking energy, wastewater reclamation, materials reuse and recycling and much more.

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Letter to the Editor

Dr. Dave Nixon, President

Monroe County Community College

Recent news stories about electricity and alternative energy are "jump starting" 2009. The stories that sparked that metaphor electrified the vision process at Monroe County Community College (MCCC), in particular what it means for southeast Michigan. MCCC faculty has been early observers of alternative energy and how it affects the curriculum for classes in the planned Career Technology Center.

In one 24 hour period, electric auto related stories appeared in The Detroit News (January 8, 2009) and the Detroit Free Press (January 7, 2009) about (1) an auto battery maker to produce lithium-ion batteries for plug-in hybrid vehicles, (2) "Green" cars to be featured at annual Cobo Center auto show, (3) Ford Motor Co.'s voice activated communications for cars (Sync) to be introduced at Consumer Electronics Show, and (4) the Michigan Legislature's authorization of Michigan community college Trustees to issue bonds for funding high-tech training in order to attract new high-tech industries that will manufacture the new technology.

The high energy implications are driving the vision at Monroe County Community College among faculty and administrators eager to create learning opportunities for students seeking new careers. The challenges/opportunities are unlimited. One of the questions might be, "when we plug our cars in over-night, will there be enough electricity?" MCCC students enrolled in the fast growing Nuclear Energy Technology (NUET) Program already have their answer to that question by way of current Detroit Energy workforce and future employment opportunities at Fermi 2, along with the possibility of future plans for constructing an additional nuclear reactor (FERMI 3) in Monroe County.

Some of the MCCC NUET students will be in attendance January 14, 2009 when representatives of the Nuclear Regulatory Commission (NRC) hold public meetings on the MCCC campus. While the meetings are held to allow the public to submit comments on the environmental issues, the discussions will also provide an opportunity for Monroe County citizens to learn more about an alternative energy being produced right here in Monroe County. Consider the potential.

Since this letter began with a metaphorical effort on electricity, alternative energies, and hybrid autos, it is tempting to suggest that the future is "bright," however we'll wait on that one for a while to see how all of this evolves.

By the way, the NRC public meetings mentioned will be held Wednesday, January 14, 2009 in two sessions: 1:00 p.m. - 4:00 p.m. and 7:00 p.m. - 10:00 p.m. in the La-Z-Boy Center. They are open to the public.

Comments of Frank Mantei to the NRC concerning DTE's proposed construction of Fermi III.

For presentation at the public meeting January 14, 2009 in Monroe, Michigan.

To help sell the idea of a new nuclear plant to the Monroe County public it stands to reason that DTE would draw on any perceived benefits the plant would have for the local area – one of these being that of the jobs created by the construction and operation of the plant. In this county, hard hit by layoffs and plant closings related to the automobile slump, the prospect of lots of new jobs would certainly peek public anticipation of a better economy. At first glance it would seem that DTE's promise of thousands of temporary construction jobs and many hundreds of permanent operational jobs should be taken as a great positive. But closer examination reveals a much less attractive picture. Competing for the same public support and financial resources is the renewable energy industry(solar, wind, etc.). In these tough economic times it must be asked, "Which area of energy generation will benefit us most? Which will give the most bang for the buck?"

One study(see www.environmentamerica.org/reports/election-2008-reports2/election-20008-reports/john-mccain-nuclear-plans) used the example of the largest currently planned(2008) new nuclear plant, the Calvert Cliffs Unit 3 in Maryland. It is expected to generate 4000 temporary construction jobs and 360 permanent jobs. Assuming a typical cost for a nuclear plant to be $7 billion, each of those construction jobs comes at a cost of $1.75 million, with the permanent ones at a whopping $19 million per job!

Another study (see reference in previous paragraph)states: "According to the Nuclear Energy Institute, a 1000 MW nuclear plant creates 400-700 permanent jobs. Building a nuclear reactor would result in the creation of 1,400 – 1,800 jobs during construction." Using the best of these numbers together, this works out to be almost $2.5 million per job.

DTE"s own figures (as found in Ch. 4 of the NRC environmental report), indicate an estimated maximum of 2900 construction jobs and up to 700 permanent jobs during operation, for a total of 3,600 jobs. DTE estimates the cost of construction at $10 billion. This works out to be about $2.8 million per job, most of which would be temporary(less than 8 yrs). And who would pay for these very expensive nuclear jobs? DTE electrical customers through higher utility rates, of course.

By contrast, another study(see reference in paragraph two above) indicates that investing $100 billion in energy efficiency and renewable energy over two years would create 2 million jobs – that works out to be only $50,000 per job(or only $0.05 million per job). Still another study (see www.tarsandswatch.org, and find their Jan l6, 2008 report)says: "...study after study has confirmed that a renewable energy sector produces many more jobs. Wind like solar, produces five times as much employment as nuclear per amount invested."

And what about those Monroe County automotive job losses – could those unemployed folks count on stepping into the nuclear construction jobs building a Fermi III? Not likely, unless they are

experienced carpenters, iron workers, equipment operators, mechanical workers, electrical workers, boiler makers, pipe fitters, sheet metal workers, insulators, painters, or millwrights. How many would fit into one of these categories??

From what I've studied so far, it sure sounds like the construction and operation of Fermi III would be a real economic boondoggle! We'd be much better off to invest our resources in energy efficiency and renewable energy sources such as solar and wind.

Frank Mantei

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