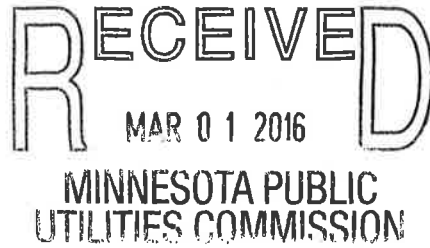


MN Public Utilities Commission
Beverly Jones Heydinger
Nancy Langer
Dan Lipschultz
Matthew Schuerger
John Tuma



This is a Petition - in the Matter of the Combined Application of North Star Solar PV LLC for a Site Permit and Route Permit for the North Star Solar Electric Power Generating Plant and Associated 115 kV HIGH Voltage Transmission Line in Chisago County, by the residents living on the south side of 367th Street in Sunrise Township on behalf of over 100 families, lives and our community -

- **against the Commissions' adoption of Findings of Fact, Conclusions of Law and Recommendation the administrative law judge**
- **against the Commission finding that the environmental assessment and the record created at the public hearing adequately address the issues identified in the scoping decision**
- **against the Commission grant/issue a site permit for the 100 megawatt North Star solar energy generating facility Solar Electric Power Generating Plant in Chisago County**
- **against the Commission grant/issuing a route permit for the 115 kilovolt transmission line associated with the North Star solar energy generating facility Solar Electric power Generating Plant in Chisago County**

We are petitioning the Commission's decision first and foremost that we as residents are placed in a position of "at risk" due to the State of Minnesota, Community Solar Energy and their attorneys making decisions that we as residents do not have equal authority, education, voice, or monies to defend our lives. There will be significant adverse effects to the Human health and wellbeing, adverse effects to financial wellness, adverse effects to cultural wellness, adverse effects to the environment, displacement and neighboring land use conflict - with many more unknowns - with the State of MN PUC placing a massive Power Plant, with cumulative Power Plants', surrounding human lives daily living. There is also great conflict of interest by the State that was documented by the State at the initial 2015 meeting. Also in the meetings and reports, there is no documentation as to other types of INDUSTRIAL PLANTS that may be allowed on this property in the future that may adversely affect human lives.

There are three Solar Power Plants being placed in the land surrounding the homes of the enclosed residents and families.

1. The North Star Solar Power Plant will have long term usage of 1112 acres for 25 – 30 years. (long term/life time)
2. The Geronimo Solar Power Plant will have 320 acres for 25 – 30 years. (long term/life term)
3. The Aurora Solar Power Plant has 64 acres for 25 – 30 years. (long term/life term)

The North Star Solar Power Plant will be taking over all of the property adjacent to our resident yard/properties on the north side.

The Geronimo Solar Power Plant will be taking over all of the property adjacent to our resident yard/properties on the south side.

This will cause an "islanding effect" with our residential homes that will be surrounded by Solar Power Plants should the Commission approve the North Star Solar Power Plant. 3 Solar Power Plants surrounding residential homes.

The MN PUC, The MN State Commerce Department, and the MN Attorney General's office were all made aware of the "islanding affect" and the numerous concerns of health and welfare risks with the Solar Power Plants - as addressed on numerous occasions with over 100 in attendance for the April 30th, 2015 meeting.

April 30th, 2015 Tracy Smetana of the PUC and David Birkholz of the State Department of Commerce were made aware of the Aurora and Geronimo Solar Power Plants that would be south of the North Star Power Plant and adjacent to the resident properties. Dean Mandel along with Bob and Patrice Zangs spoke directly with David Birkholz again following the meeting and addressed the concern with three Power Plants surrounding our residences. David commented that there should be no cumulative adverse effect on our families/residences with multiple Power Plants. He also responded that, "we are in a "situation" that the State Legislature has made a FINAL DECISION. We asked about alternative sites, yet in documentation from the State of MN, the alternative sites were dismissed by the MN PUC and State Commerce.

July 16th, 2015 Lori Swanson, Atty General, and Laura Flanders, Legal Assistant, and Assistant Attorney General Ian Dobson were made aware of the health and risks and concerns relative to the adverse effects on the residents and their properties. They simply noted that their office filed "comments" with the PUC to ensure that the Solar Power Plant does not harm consumers or individuals who elect not to participate in the program. They did not address the residents who live here and will be most adversely affected by the Power Plants. They simply noted that we may wish to hire a private attorney.

October 7th, 2015 Again, on October 7th Barbara J. Case (ALJ) was also made aware of the health issues, "islanding effect", loss of home values, breakdown and loss of our community, visual, mental , spiritual effects on families that will be surrounded by Solar Power Plants.

Again, on January 20th, 2016 several residents attended the PUC meeting. A resident attempted to speak, but only the Solar Power Plant Attorney and Community Solar representative were allowed to speak. Commissioner John Tuma mentioned 3 times "the homes south on 367th St." as the 7 homes that were being bought out. This is NOT the case. None of the residents south on 367th (that will be surrounded by Solar Power Plants) on both the North and South sides of our properties - none have been provided any buy out option by either the County or the State. NOTE: Yet, BOTH the STATE Departments noted above, and the Chisago County Board /Members are fully aware that our residences WILL be surrounded by Massive Solar Power Plants. Commissioner John Tuma also wrote up a decision alternative for 7 of the 14 landowners substantially surrounded by the Solar Power Plant, but neither he nor the Commission addressed nor included the other 7 homes that WILL be substantially surrounded by Solar Power Plants. No discussion or documentation on the health and welfare of the other 90+ residential homes was mentioned.

We are petitioning the Commission's approval of the Solar Power Plant Application, in due course based on the "islanding" of our lives, and no defined research that can conclude no adverse effects on human lives surrounded by Solar Power Plants. There is no documentation that proves there will be no adverse effects to our families, our animals (horses, dogs, cats, chickens, etc..) nor to our land/gardens/ trees/fruit bearing trees/etc... or our daily living with not only One power plant, but the cumulative effects from each and every area that will be effected by the Power Plant. There are over 100 homes in the immediate area – as documented in your report. Of which only a few will be purchased by the North Star Power Plant/Community Solar.

The Application supplied to the PUC from the Solar Power Plant proves that *there will be adverse effects* both individually as well as cumulatively. Our lives are at stake. Our families are at stake. Our animals are at stake. Our land is at stake. Our livelihoods are at stake. Our Rural lives matter.

By considering this criteria in the MN R.7850.4100: the Commission must consider the following:

A. Effects on human settlement, displacement, noise, aesthetics, cultural values, and recreation.

- See XI. Application of Siting and Routing Factors:

Effects on Human Settlement

- North Star Solar bought off 7 homes of the 14 homes not within the North Star Solar Plant boundaries, but adjacent. This will greatly will affect our human settlement, as what was once long term neighbors/community will now become 50% temporary placements in our immediate neighborhood.

The Solar Power Plant only offered purchases to the few following our Lent township meeting with over 100 residents in attendance of which 95% who live in the area stated comments and provided information in opposition of the Power Plant in our neighborhood and community.

Displacement/Neighboring Land use Conflicts

- In review with the majority of the neighbors who have received buy out options, there clearly is forced displacement of the residents. The majority of the residents offered buyouts did not want to move, but due to the concerns and fear of the negative/adverse effects from the Solar Plants several have conceded to a buy-out option – with no alternative funds to defend against the State and Solar Plants. No Homes were up for sale.
- Community Solar has “legally bound” those residents from discussion due to a \$5000 pay off to them by Community Solar.
- Two residents were holding out as they could not find any comparable properties/homes in this area, and do not want to move their families.
- There are 7 homes remaining who will be most affected with the Solar Power Plants being placed adjacent to our properties, in addition to nearly 90 families who will also experience adverse effects from the Power Plant being placed in our neighborhood and community.

Adverse Human and Natural Environmental Effects

The value of our homes is the largest investment for the majority of families in the United States was placed under “Adverse effects which cannot be avoided”. Not only the monetary value, but as well making a house and environment your home. A local Realtor spoke at the Lent township meeting and shared that IF our homes could even be sold, the property values would decrease by at least 30% in value with a Solar Power Plant in the area.

- What research did the State do to confirm home devaluation with Power Plants forced in areas of residents and agricultural areas? We are petitioning the Commission do to this severely adverse effect on our residents’ largest investment in our homes. There is no solution that the ALJ or State has provided to compensate residents for their lives/homes/etc. NO Solar Power Plants of this size have been forced upon residents in any other area.

Noise

- In the ALJ findings and conclusions, section 4.2.5 the noise standards established under Minn. R. 7030.0100 to 7030.0080.
- The noise levels for daytime hours which are from 7:00AM to 10:00PM (as noted in the application) were not addressed.
- **400,000** Solar Panels! Not just a few. **400,000!**
- What decibel levels based on the massive solar plant with hundreds of panels moving/transmission lines/inverters/etc. The standards or levels prior to operations, during operations and following had no requirements documented.
- The noise level standards and effect on humans over the course of time/ cumulative with several thousand solar panels, inverters, transmission lines, etc. as well as noise levels throughout the pre- construction, construction and operating phases, etc. have not been addressed in the report.
- The winds blow hard in this area. No effect on the noise levels, air quality or any other effects due to this were documented in the ALJ report. - Confirmation of the noise levels at which the Solar Power Plant would cause harm to human settlement and animals was also not documented. (from preparation to inception to completion and following)

Aesthetics

- No definition for “reasonable measures” were addressed to prevent erosion, and no protection plan for landowners with storm water pollution effect to nearby resident lands.
- Application - 42, 4.2.5 - There will be one mile of high voltage transmission line on 70 foot high transmission poles with high chain link fencing topped with Barbed wire.
- This will adversely affect the agricultural aesthetics and environment and so our residential lives.
- This will cause our residential homes and lives to be “Fenced in on All Sides”, north and south.
- Strong Glare WILL be reflected to residential homes near the Solar Power Plant. “Visual impact will impact the residential properties adjacent to the property”. That is us.
- How often do the thousands of panels move? In sync? Stages?
- No documentation on the effect on human lives over the course of time on this was documented.
- Submission of actual pictures of the property and visual adverse effects were shared along with sample Solar Plants (of much smaller size) at each of the meetings with the State departments in attendance to show the Glare that is produced from the solar panels of even much smaller power plants. Pictures of the properties even with any type of trees would not negate the negative visual impact of the Solar Plant, Solar Panels, Barbed wire Fencing, Buildings, Inverters, Transmission lines, etc.
- These adverse effects are confirmed within the Application that will adversely affect our daily living. Simply providing trees – will not prevent or reverse the adverse effects noted above on residents’ lives.

Cultural Values and Natural surroundings

- Our environment is agriculture. Farming is our natural environment. Our values and a part of our lives. Feeds us, nurtures us.... Nature surrounding us. Living “one with nature” is why our neighbors have moved here even though long distance and drive from the cities. Each family chose this property due to the opportunity of country living - living on a hobby farm, agricultural values - including safety, fresh air, clean water, gardens, animals, outdoor living, quiet/peacefulness, view and life with agricultural land, nature and wildlife, the gravel road to walk safely, riding on bikes and riding our horses. We bought our properties due quiet road, proximity to the Kost Dam/River, and yet close to county Road and town.
It is not ethnic values - it is cultural values that have brought us together.
- The application of placing a Solar Plant fences us in like prison.
- The Solar Plant will pound in Tall fencing with barbed wire will surround our lives/properties...
- Our cultural surroundings will have complete separation from nature. Not simply displacing nature, but Killing nature. This is documented with historical data submitted at the Lent township meeting on Solar Power Plants. Only the killing of animals was documented in the ALJ report.

The Solar Power Plants are NOT natural surroundings. Power Plants disrupt cultural values and natural surroundings when placed in our residential and agricultural setting.

4.2.12 Application of Herbicides – No proven documentation that our families will not be adversely affected by the application of herbicides, nor our animals, or land/trees/gardens/etc.

4.2.17 Interference with Communication Devices NS application 4.2.4

Working office from home – What guarantees of reception for internet, cell phone reception, etc.... As this will adversely affect our livelihood. The application states the Solar Power Plant can interfere with communication and other electronic devices.

4.2.19 No clean-up plan “tail of income” is included in the ALJ report. No timeframe has been documented when this will be required to be completed.

4.2.20 Pollution controls from the Solar Plants have not been confirmed to any of the residents adjacent to the Solar Power Plants. Proven documentation of no adverse effects has not been given to residents.

4.2.21 Damages What amount of income has been set aside, and what amount of insurance for damages that may be caused to landowners? Nothing in the ALJ report has been defined.

Recreation

The report did not document the adverse effects to OUR MAIN Outdoor recreation that is LIVING IN NATURE – viewing wildlife, and walking and connecting with wildlife– from bear and deer and fox to geese and wild turkeys and turtles to eagles and hawks, in addition to horseback riding.

- The Solar Plant being placed in this residential and agricultural location will greatly adversely affect our main outdoor recreation.

Public Services

The report states impacts that may occur to our local electrical service – whether limited and/or temporary.

4/2/22 Public Safety

The report has not defined the dangers to residents and their families, and animals. Why not? What research has been done to confirm again NO adverse effects to the residents and animals (both domestic and wild) that will be surrounded by these Solar Power Plants?

In the Solar Power Plan application that the Commission approved at the January 20th, 2016 PUC meeting, on page 70 it is reported that, “Impacts – Due to low population density surrounding the projects, minimal impacts to Public Health and Safety are anticipated. “ ...EMF ARE EXPECTED to be generated from the buried electrical collection system and the overhead transmission line for the NS HVTL Project.”

- *Yet the ALJ reported that there will be no change from the existing EMF levels for ANY residence and any risk is ANTICIPATED to be negligible.. Please provide proven documentation on the distance that provides complete safety to residents from Solar Power Plants (with both 1. Power Plant of this massive size, and with the 2. Cumulative effect with the 2 adjacent Power Plants.*
- *What are the actual ELFs and EMFs that will be emitted from the Solar Power Plant Projects/inclusive of transmission and power lines, underground lines, inverters, panels, substations, etc.?*
- *What research has the Commission reviewed to confirm no adverse effects with EMF, ELFs , etc. due to multiple and Massive Solar Power plants placed with adjacent residential homes? Please read and review separate health risk page enclosure and attachments.*

Natural Environment The effect on wildlife injuries and fatalities due to Solar Power Plants is alarming. The ALJ report does not address the research in this area, and this greatly affects the residents’ natural environment. How this will be avoided – has NOT been addressed. The report simply noted that **the Solar Plant will report the numbers of fatalities** on a quarterly basis.

Air Quality

The ALJ report doesn’t document the cumulative effect of air emissions and air quality impacts from this Project Power Plant. What are they?

What are BMPs, and what effect will BMPs and dust emissions have on the residents?

Soil and Groundwater

What risks are associated with impacts to groundwater. The report only notes that impacts are not anticipated. What does that provide?

#190 notes, a plan will be prepared to MINIMIZE the potential for spills of hazardous materials. THERE WILL BE HAZARDOUS MATERIALS. North Star simply commented at the public hearing that, “they do not expect” any hazardous material to be used on the site. Does this mean yes or no? Hazardous materials CAN be used??? What effect on human health and wellness for the residents, environment, etc. etc...?? This goes as well to waters, wetland, vegetation.....

Recreation

We are also petitioning the Commission's decision based on the Economic Risks that the State is placing on the residents who live in this community. Value of our homes was placed as a non-issue. Our homes are our largest investment. Where we place it, the environment around it, etc.

Economic benefits are being given to the State of MN, to Excel Energy, to out of state businesses such as Community Energy Solar, and to those who do not live on or adjacent to the Solar Power Plants.

We are petitioning the Commission's decision based on the following not being confirmed in the documentation or responses from the Fiduciaries/authorities through the State of MN. The Law Judge only answered legalities and checklists for quantitative analysis.

Our lives are qualitative. We are petitioning the Commission's decision based on the lack of documentation (mostly from those who are in authority in a Fiduciary capacity with the State) in not providing research and answers that confirm protection and wellbeing of human life for the long term.

Please as well respond to the following and documentation on the following:

**Does the importance of Public Health and Safety in MN only apply to high population density? Or does it apply to also low density population? Discrimination?*

** What is the Commissioners' acceptable level of increase in health risks to the residents of MN – as it pertains to this North Star Power Plant, the cumulative effect with three Massive Power Plants in adjacent proximity of residential homes, and the effect of EMF? (in addition to noise, glare, air pollution, ground pollution, visual impacts, etc. etc.)*

** With a home being one of the largest investments for our families within the United States, and for our families here in Sunrise Township, MN, what amount of decrease in value does the Commission believe should be acceptable, based on the Solar Power Plant not being in our control, but in yours?*

** What amount of decrease in health does the Commission believe should be acceptable based on the Solar Power Plant not being in our control, but in yours? How is this measured?*

** What research does the Commission have to confirm "a safe distance" for families, animals, gardens, trees, etc.....from these Power Plants? How do you define "safe"? What is this distance?*

It is not documented as why the State would allow the Solar Power Plants to be placed in our neighborhood (Agricultural and Rural Residential property) and change this to INDUSTRIAL when it is adjacent agricultural property?

It is not documented as to why the State would allow the Solar Power Plants to follow the Site and Permit Application for LEASED properties, when the Solar Power Plants have the ability anytime currently and in the future to PURCHASE this property?

And as well the Solar Power Plants having the right to sell off the Property in the future which would be then documented as an INDUSTRIAL SITE and – to ANYTHING that is considered INDUSTRIAL in the future? This opens even more liability and adverse effects to our families, our lives and future generations.

We are average residents with no authority allowed by the State, no voice that has been listened to and acted upon, with no legal representation. We are fighting for our lives and our values on our own.

- How much greater you as Fiduciaries of the State of MN should be held to much greater standards in protecting the rights of not just high density populations, but rural communities as well.

Each State Department (The MN PUC, State Commerce, and Attorney General's Office) is fully aware of the adverse effects of Power Plants being placed in residential and agricultural areas for short term and long term - not simply from our resident understanding.

- The State PUC and State Commerce had full head start with your plan several years ago without residents being made aware,
- You have paid State legal counsel,
- You have State resource teams and tools for documented and undocumented research,
- You've partnered in advance with the Power Plant Company (as noted in presentations, newspaper articles, etc.
- You have not allowed the residents to arbitrate – you have only allowed the Solar Power Plant company to do so
- When residents have been allowed to speak, the State representatives' responses have muted and discredited our concerns.

See examples from Displacement to Cultural Values to the enclosed Health Document

1. Displacement – Over 100 homes in the IMMEDIATE AREA – yet only a few offered buyouts. No one had their homes up for sale. No one wanted to move. But have been and will be forced to if you as a Commission do not rescind your decision.
2. Noise “not expected to be perceptible, not predicted to exceed noise limits, etc. (so the noise CAN exceed limits)
3. Aesthetics, “Glare from the modules are reduced by.... (so the glare IS there)
“Enclosed by an 8 Foot Security Fence topped with another foot of Barbed wire (like prison)
“PERMANENT” motion-activated lighting
135 High Voltage transmission lines (The ALJ noted, “Public comments did not raise the HVTL Project as of aesthetic concern to community residents”.) We are not attorneys nor experts in review of ALL of the DATA that both the State and Solar Power Plant have written. Because this was not commented on – does NOT mean this is not a concern.
#138 Trees, shrubs? Fences? and berms were noted as possibly screening the view of the Solar Power Plant. See above many meetings and documents and pictures that disprove this.
4. Cultural Values
#141 and 142 as noted in the ALJ document, “Cultural Values include PERCEIVED community beliefs or attitudes in a given area that provide a framework for community unity.” The majority of our families have chosen this community in the country for the purposes as noted within this petition.

How will the cumulative effects from each of the areas documented and those undocumented in all of the meetings, meeting minutes, documentation, etc. from the North Star Solar Plant affect our families and our lives? This was not documented in the ALJ report. How will the cumulative effects from the above question multiplied by three Solar Plants affect the lives of the families and animals and environment in this agricultural and residential area?

We as residents have been placed at risk by not having the knowledge, the resources – the time or the money, the process, the documentation, procedures, etc. etc. to defend ourselves against the Power Plant and the State Departments Solar Power Plant. Each resident in their own way have tried to speak out and in community– as you saw and read the notes in the Lent Township Hall meeting in April.

We ask that you act in the best interests of the residents who will be most adversely affected by your decision. We are not against Green energy, but believe it should NOT be approved in areas that will adversely affect ANY human lives. Every life matters. We are petitioning your decision that will adversely affect our lives, our families and our future.

This may be perceived as a project, yet this is NOT just a project. Your decision will negatively impact real people's lives, their families and their homes not only for today, but our future. If you lived here – would you say NO and defend your family from health risks that the State is forcing on you and your family? Financial risks that the State is forcing on you and your family?

This petition to the MN State Commission is on behalf of our lives, and our families.

Patrice & Bob Zangs & Family Immediate neighbors in communion: Paul and Miesha Carpenter & family, Glen and Lori Anderson & family, Mark and Jill Bossard & family, Rick and Cheryl Ramburg & family, Tina and Fred Carey & family

Attachment to the Petition to the MN State Commissioners dated 2/26/2016

In 2007 The WORLD HEALTH ORGANIZATION concluded a review of health implications of electromagnetic fields. This resource was made available to the MN Department of Commerce, the MN Public Utilities Commission, the MN Commissioners, and the health issues were also addressed to the MN Office of the Attorney General.

We are petitioning the MN Commission since Adverse health and environmental effects on human life are inherent.

Exposure metrics, Risks, and Cumulative exposure were not confirmed with any research from the State of MN that is current, and as well not based on the numbers and magnitude of the Solar Power Plants that will be surrounding our residential homes. The enclosed was drawn from the above world health resource addressing the additional health risk to human life with even limited exposure to additional EMF or ELF.

Health Risk Assessment

The control of health risks from the exposure to any physical, chemical or biological agent is informed by a scientific, ideally quantitative assessment of potential effect at given exposure levels (risk assessment).

Risk assessment is a conceptual framework that provides the mechanism for a structured review of information relevant to estimating health or the environment effects of exposure.

According to the WHO, (the World Health Organization) ***health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.*** They state, ***“Before identifying any actual health hazards, it is useful to clarify the difference between a biological effect and an adverse health effect.*** A biological effect is any physiological response to, in this case, exposure to ELF fields. Some biological effects may have no influence on health, some may have beneficial consequences, while others may result in pathological conditions, IE ***adverse health effects.*** ***Annoyance or discomfort caused by ELF exposure may not be pathological per se but, if substantiated, can affect the physical and mental well-being of a person and the resultant effect may be considered to be an adverse health effect.***

In Section 12.2.2 Acute effects

ELF electric and magnetic fields CAN affect the nervous systems of people exposed to them, resulting in adverse health consequences such as nerve stimulation, at very high exposure levels. Exposure even at lower levels induces changes in the excitability of nervous tissue in the central nervous system which may affect memory, cognition and other brain functions. ***Exposure to ELF electric fields also induces a surface electric charge which can lead to micro shocks.***

12.2.3 Chronic effects

Scientific evidence suggesting that every day, chronic, low –intensity ELF magnetic field exposure poses a possible health risk is based on epidemiological studies demonstrating a consistent pattern of an increased risk of childhood leukemia. ELF magnetic fields remain classified as possibly carcinogenic.

Acute and Chronic exposure = consistent pattern of increased health risk.

12.2.3.1 The epidemiological studies on childhood leukemia have focused on average residential ELF magnetic fields as a risk factor for cancer.

Average Residential EMF Fields + surrounded by North Star Solar Plant Exposure + Geronimo Solar Plant Exposure = even Greater Increase in health risks to our lives - surrounded by 1400 acres of Solar Plant exposure.

12.4.1 Threshold levels

For some effects there may be a continuous relation with exposure, for others a threshold may exist. Effects result from the electric fields and current that are induced in body tissues by ELF electric or magnetic field exposure including acute changes in functions of the central nervous system (brain and spinal cord). **No thresholds have been identified for chronic effects.**

12.6 Consistent epidemiological evidence suggests that chronic low intensity ELF magnetic field exposure is associated with an increased risk of childhood leukemia....precautionary measures are warranted.

NOTE:

1. Page 34 of the North Star Application that the MN Public Utilities Commission is seeking to approve notes as well from the WHO, that "the evidence (of the relationship between magnetic fields and childhood leukemia) is not strong enough to be considered causal, but SUFFICIENTLY STRONG TO REMAIN A CONCERN."
2. The white paper on EMF Policy and Mitigation options as prepared by the MN State Interagency Working Group on EMF issues dated September 2002, Exhibit 147 states on page 36: under Policy Recommendations: Prudent Avoidance Measures the following: "The uncertainty surrounding EMF health effects presents a difficult context in which to make regulatory decisions. Because adverse health effects resulting from EMF cannot be proven or disproven, the MN Work Group considers it prudent public health policy to take a prudent avoidance approach. This approach suggests that **ONE SHOULD AVOID ANY ACTIVITY OR EXPOSURE** about which there are questions of safety or health.

We petition the Commission's approval of the Application by the Solar Power Plant due to the imminent health risks that are inherent with placement of this Massive Power Plant on human lives.