

**BHT Neighborhood Association
Meeting Minutes
February 17, 2010**

13 people in attendance (see attached attendance sheet). The meeting was called to order at 7:10pm.

First on the agenda was Dr. Kuo Chang. He discussed the health risks associated with dirty power in the transmission lines (please see Exhibit A below; PowerPoint presentation by Dr. Chang). Exhibit A:



Health risks of
the proposed sola

1. Health Risks of the Proposed Solar Highway Project

Kuo C. Chang, MD
Director, Asthma Allergy Centre
Director, Asthma Allergy Centre Research Group
Clinical Associate Professor of Medicine
Oregon Health Science University, 1989-2002

Proposed Solar Panels and Inverters

- World's largest solar panels, as stated by ODOT
- To be located in West Linn, between I-205, Salamo Road and residential neighborhoods
- 3 megawatts
- 12 "parallel strings of PV panels" 12 "inverters"

2. It is green! But is it safe to nearby residents? Furthermore, is it safe to residents miles away?

It is far more dangerous than you think. Not only to nearby residents, but also to residents miles away ODOT, Ms. Allison Hamilton, Project director, and Governor Ted Kulongoski could not have anticipated this Because the key paper was published in 2008

La Quinta Middle School, La Quinta, California, built in 1990

La Quinta Middle School

La Quinta, California

- In temporary classrooms since 1988.
- Built in 1990.
- Sixteen teachers among 137 teachers hired in 1988 through 2005 were diagnosed with 18 cancers
- Two teachers were diagnosed with 2 cancers

**3. Samuel Milham, MD, MPH
Retired section head Chronic disease epidemiology
Washington State Department of Health**

**All Cancers of LQMS Teachers
Melanoma at LQMS**

Melanoma at LQMS

- Melanoma: 4 cases at LQMS
- Nearly 10-fold excess above expected
- The incidence of melanoma has been linked to

residence in a high sun exposure area Is this because LQMS is in a desert?

- Melanoma incidence rates
- Nevada: 17.7 per 100K people per year
- Clark County (Las Vegas): 17.7 per 100K people per year
- California: 16.3 per 100K people per year
- LQMS: 159.7 per 100K people per year**
- LQMS melanoma cannot be explained because it is in a desert

4. Thyroid Cancer at LQMS

Other Cancers at LQMS

- Thyroid cancer: 2 cases at LQMS
- Over 13-fold excess above expected
- Uterine cancer: 2 cases at LQMS
- Over 9-fold excess above expected
- Breast cancer: 2 cases at LQMS
- 1.3-fold excess at above expected
- Other cancer cases at LQMS (1 case each)
- Colon, pancreas, ovary, larynx, lymphoma, multiple myeloma,

How Much Time for a Cancer Diagnosis at LQMS?

- Average time from hire to diagnosis: all cancers, 9.7 years
- Average time for melanoma, 7.3 years
- Average time for thyroid cancer, 3.0 years

Why a Cancer Cluster at LQMS?

- LQMS has unusual levels of “dirty power” when compared to homes, offices and other schools
- Dirty power meter Microsurge II meter (MS II)
- Designed by Professor Emeritus, Electrical Engineering, University of California Berkeley
- Measurement is in “MS II units”
- Meter “overloads” for (is unable to read) readings >2000
- 25.5% of all rooms at LQMS have readings above what the meter is able to measure (an “overload” condition)**

5. What Percentage of Rooms Have Readings Above What the Meter Can Measure?

Dirty Power at LQMS and Other Places

Students Are Not Spared

- About a dozen cancers
- Two have died

Does Dr. Milham’s research prove a causal relationship between high frequency transients and cancers? No Is it very likely? Yes

6. How Far Can Dirty Electricity Travel?

- Dr. Milham also measured transient pollution along the transmission lines that fed power to the school. “I found it all the way from substation to the school – more than a mile.” “There are three other buildings along the route that also serve children. I’ve reported it to the FCC and the utility, but they ignore the problem.”

Why is the Little Guy Always the Loser?

Before the health risks are further confirmed: It is prudent that we avoid such dirty electricity high frequency transients exposure Because the health of the public is at risk if it is ignored.

How High Frequency Transients are Created?

Dr http://www.emrpolicy.org/public_policy/schools/magda_havas_hsn_presentation.pdf

Does Windmill Produce Dirty Electricity?

1. Dr Palm Spring
2. Not published in a peer-reviewed journal

7. High Frequency Electrical Pollution from Ripley Wind Farm, Ripley, Ontario, Canada

- Not published in a peer-reviewed journal – David Collin
- The collection lines from wind farm to substation (24 miles):
 - 30 km (18.8 miles) were buried, but,
 - 9 km (5.6 miles) were left above ground.
 - This resulted in “stray voltage” – which he called electrical pollution
 - Many health symptoms in his neighbors
 - City councils and utility companies dismissed his complaints.
 - YouTube videos by David Collin (12/19/09)

<http://www.youtube.com/watch?v=M4NE8sWBoaQ>

<http://www.youtube.com/watch?v=JywcSAfY0NA&feature=related>

<http://www.youtube.com/watch?v=TUqC84qozb0&feature=related>

8. Solar Panels and Inverters

- Solar panels produce DC power, and the magnetic fields produced are the same as that of the earth. No harmful effects are known. DC power needs to be changed into AC power with inverters in order to feed into a power grid and make power transmission possible.

How About Solar Panel Inverters Proposed at West Linn Site?

- No published data regarding solar panel inverter and the high frequency transients
- Dr. Milham indicated in an e-mail to me:
- Inverters and switch mode power supplies generate high frequency voltage transients “dirty electricity.”
- With 12 inverters a lot of this will be injected into the grid and will be present on residential and business wiring at a distance from the source.
- Dr. Milham said: “The utilities won’t acknowledge that dirty electricity is a health problem.”
- Burying the collection lines will not stop the high frequency transients transmission Dr. Sam Milham’s e-mail to Kuo Chang, MD on Feb. 10, 2010

High frequency transients and a link to cancer is a dramatic recent finding.

How about the electromagnetic fields which have long been debated for over 50 years?

Electromagnetic Fields and Health risks

- For 50 years there are numerous studies with conflicting results
- Power companies and cell phone companies fund at least 87% of the research on the subject. Their results are usually negative

9. What is the Evidence of these Health Risks?

- The 650 page BioInitiative Report (2007), co-chaired by David Carpenter, MD, Director, Institute for Health and Environment, University at Albany, SUNY, and Cindy Sage, MA, with 14 scientists from 6 countries, citing more than 2000 studies (many very recent).
- The majority of the reports in BioInitiative Report were published in a peer-reviewed medical journal "Pathophysiology" in 2009.
 1. <http://www.bioinitiative.org>
 2. *Pathophysiology*. Volume 16, 2009
- The International Agency for Research on Cancer (IARC), is an intergovernmental agency forming part of the World Health Organization of the United Nations. It categorizes the risk of carcinogens to humans into 5 groups:
 - Group 1, the agent is carcinogenic to humans;
 - Group 2A, The agent is probably carcinogenic to humans;
 - Group 2B, the agent is possibly carcinogenic to humans;
 - Group 3, the agent is not classifiable as to its carcinogenicity to humans, and
 - Group 4, the agent is probably not carcinogenic to humans.
- Electromagnetic fields (EMF) are classified as Group 2B, a possible carcinogen.
- This is current and was most recently updated in 2009.

What Other Illnesses Have Been Linked to Electromagnetic Fields

- Brain diseases – quite likely
- Dementia¹
- Alzheimer's²
- Possibly
- Amyotrophic lateral sclerosis (Lou Gehrig's disease)
- Diabetes
- Asthma
- Brain tumors
- Others
 1. Hug K, et al. *Soz Praventivmed*. 2006;51:210-20
 2. Huss A. et al. *Am J Epidemiol* 2009;169:167-75

Why Do ODOT Consultants and the Department of Energy Downplay the Risks?

- Good Company, a "sustainability company," cited two publications before 2000, and one in 2007. The one in 2007 was the same one I have cited and was posted in the West Linn Proposed Solar Highway Discussion.
- The Department of Energy cited 8 references, 7 from before 2000.
- In e-mails to Ms. Allison Hamilton, I have updated the references. Please see the discussion website. <http://westlinnoregon.gov/communications/blog/proposed-solar-highway-project-discussion>

10. Conclusion

- Solar energy is a great idea
- The "World's largest" solar panel and inverters should not be located in a residential neighborhood.
- The health risks of the residents should be the major concern of the City of West Linn, as well as the State of Oregon when building such a large industrial utility facility.

What Other Countries Are Doing to Protect Their Citizens

- The European Union, which has led the way in electromagnetic field investigation, is moving quickly to protect its citizens.
- Exposure standards have been revised.

- In the past 2 years, France, Germany, and England have dismantled wireless networks in schools and public libraries.
 - Israel has banned the placement of cellular antennae on residential areas.
- <http://www.prevention.com/health/health/healthy-lifestyle/is-dirty-electricity-making-yousick/article/9e60d47569225210VgnVCM10000030281eac>

Thank you

Following the presentation there was a question and answer period. Steve Garner asked if there were any studies currently underway regarding the health risks of solar panels. RESPONSE: It takes four years to publish results; probably 2012 will be the earliest they start coming out. Bill Weber asked how Mr. Chang rates the discussions between he and ODOT (A. Hamilton). RESPONSE: Pretty good and honest although Alison says the solar highway project won't increase our electric load.

Next on the agenda was Lynn Averbeck (Project Manager) and Ron Kroop (District Manager) for ODOT. Lynn is doing a feasibility screening for the project and believes it to be an ideal site for the project at this point.

She gave us an update on the status (see Exhibit A). The highlights are:

1. No deal with PGE yet. Project won't be funded or construction begun until at least 2011 due to lack of funding.
2. Feasibility analysis for site will be posted online by March 12th (ODOT solar highway website and City of WL website). Lynn said if we couldn't show to PGE that this is a valid project/good site then the deal will be off, that's why they are doing an independent study early, way before funding or construction.
3. ODOT Open House in WL is currently scheduled for March 31st regarding the March 12th published feasibility analysis for solar highway.
4. ODOT and City and working on permitting. There will be a City action with public notice and an appeals procedure in accordance with the City's community development code. ODOT would like to meet with BHT neighbors on this topic prior to formally submitting this action to the City. The approval process would (in order) go through City Staff, then Planning commission and lastly City Council for a vote—**NOTE: this is Lynn Averbeck's assumed process and sequence.**

Steve Garner asked if this project is the "Governor's" baby? RESPONSE: Lynn said "Well, yes, but it's mostly Alison Hamilton's baby. Bill Weber said thank you for coming. He asked other than PGE's (possible) lack of funding can anything else stop this? RESPONSE: Lynn's response was, "I don't know". FIRE DANGER: Lynn spoke about the Fire danger and danger from the invasive species. She said ODOT can give permits or access to right-of-way for people to do things to a proposed 5 acre parcel (see attached map, Exhibit B) above the solar highway project, which is next to BH houses. She gave us a paper (Exhibit C) showing us four possible options for BH neighbors bordering the project hill to take care of ODOT's property in conjunction and cooperation with ODOT. She also gave us another paper with a possible list of partners to enhance the 5 acre parcel (See Exhibit D). Tod Tolan spoke about human causes of fire danger and the difficult access to fight them on that hill. Steve Garner spoke about the "electrical charge on the solar panels during all daylight hours" being a huge fire risk and hazard to firefighters. Frances Hannah will send the CA fire codes for solar panels to Lynn Averbeck.

Steve Garner asked about the “tree cutting” that occurred on ODOT’s property about 6 weeks ago by a neighbor. Steve said that it was his understanding that the trees were cut to prevent fire hazard.

RESPONSE: Ron Kroop (ODOT) said that was very unfortunate it became adversarial. The neighbor should have contacted ODOT PRIOR to cutting the trees. Since he didn’t there will have to be some agreement written up with restitution provided by the neighbor. Ron is hoping the money will go to a local tree organization (Friends of Trees) who will plant trees around the I-205 freeway, near the 10th Street exit.

Trail: The ODOT engineer (Bike Coordinator) prefers the trail at the bottom of the site, near I-205. However, this is a City of WL decision, independent of the solar highway project. There is no deadline for this trail decision. There might be an IGA between City and ODOT. Ken W. has told Steve Garner that ODOT and PGE prefer the lowest trail location option—between I-205 and the solar panels (even if the panels are not installed).

Bill Weber asked if the Solar Hwy still goes through will ODOT still have the “storage area” where the old Rest Area was? RESPONSE: Ron Kroop said if the Solar Highway project gets approval they will move the stockpile equipment/surplus to the I-5/Wilsonville stockpile area.

Ron Kroop wrapped up our meeting saying he sees two unknowns:

1. Is the Solar Highway going in and Where/When?
2. Is the Trail going in and Where/When?

He suggested a small group of interested parties (WL Parks, TVFR, Ron Kroop and BH neighbors get together to work out the fire/security concerns would be a good idea. (See attached list of suggestions/resolutions from Lynn Averbeck). Ron appreciates the work that the neighbors have done mowing the site. He had never heard any concerns about fire safety on that hillside and he’s been with ODOT for 11 years, with that hillside as part of the area for which he is responsible. Margaret Tolan assured him that she has been calling/writing letters for years.

Steve Garner pointed out that erosion (due to the instability of the hill from prior work when building the freeway) is of huge concern as well. Lynn Averbeck said we might be able to get a “bargain” from ODOT to gain joint agreement on the Solar Highway project.

Minutes by Cindy Garner, acting secretary.

Exhibit A

West Linn Solar Highway Project
Status Report for BHT Neighborhood Association
2/17/2010

1. No deal yet with PGE. Project will not be taken to the Oregon Transportation Commission for approval until a deal with PGE is real. Project cannot be funded until 2011 at the earliest due to restrictions on the state Business Energy Tax Credits (BETC).
2. Site feasibility analysis results posted online by March 12. (This is the same thing as “NEPA”, “Categorical Exclusion”, and “technical studies”)
3. An ODOT Open House in West Linn is tentatively scheduled for the evening of March 31st. We will have information there about the site feasibility analysis results and staff present to answer questions. An announcement will be posted online (City and ODOT websites) and emailed directly to BHT NA and other interested parties.
4. ODOT and the City are still working on resolving permitting questions about the partial zoning of the right-of-way. There will be a City action with public notice and an appeal procedure in accordance with the City’s Community Development Code. ODOT would like to meet with the BHT neighbors on this topic prior to formally submitting this action to the City.
5. ODOT is hopeful that we will be able to have a ceremonial ground-breaking event late this year, but construction will not begin until 2011.

ODOT Office of Innovative Partnerships & Alternative Funding

Exhibit B

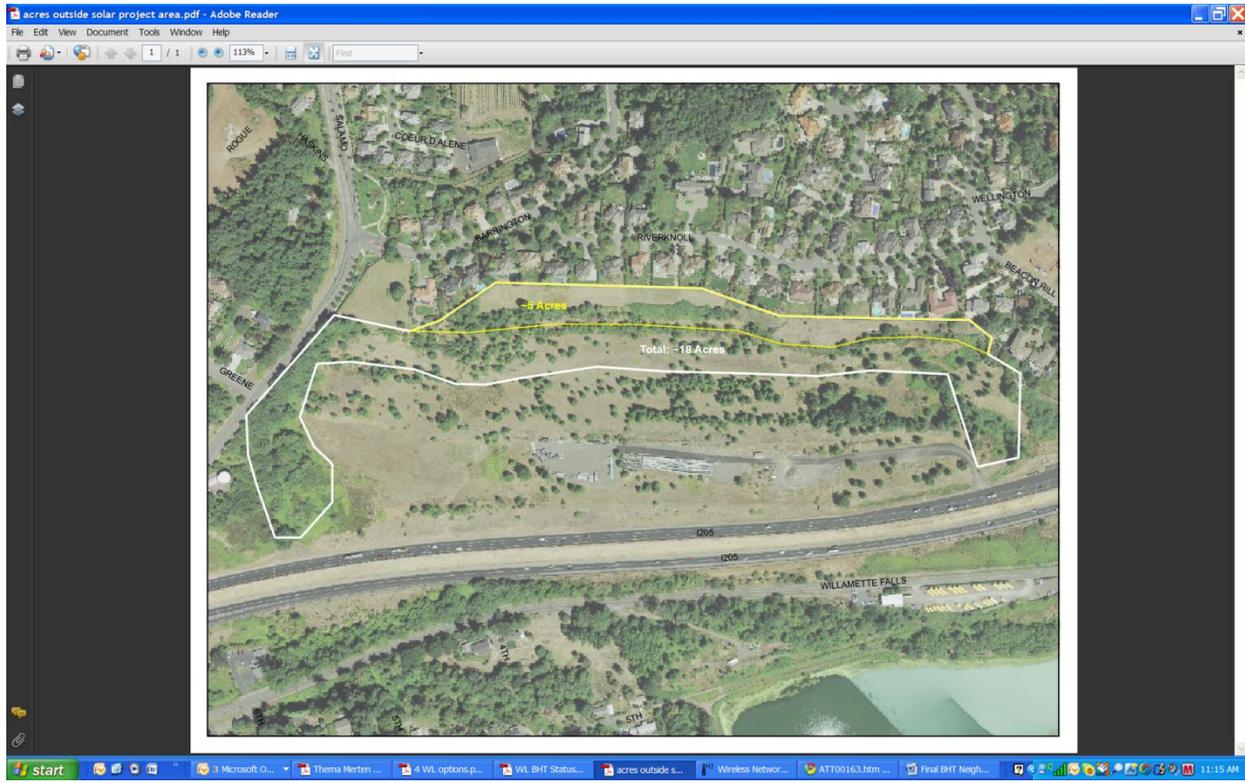


Exhibit C

Enhancement Project – Options for the excess Right of Way For BHT Neighborhood Association 2/17/2010

Adopt A Highway (and Adopt A Landscape)

Provides citizens who are concerned with Oregon's environment an opportunity to control litter and improve the appearance of the state highway system or entry into a community. Individuals, corporations, associations, firms, partnerships and joint stock companies enter into an agreement with ODOT to pick up and remove trash and litter from the right-of-way. May also include landscape improvements and maintenance. Requires proof of liability insurance, safety training, and coordination with ODOT.

Pros

- Standard program that has been in effect for a long time
- Set procedures and forms
- Easy for ODOT to implement

Cons

- Not designed for large pieces of property that need landscape management plans
- Track record for follow through is not very good

Maintenance Agreement

Legal written agreement between ODOT and adjoining property owners giving permission to adjoining property owners to enter and maintain ODOT property.

Pros

- Fairly straightforward, standard IGA language to start with
- Has worked fairly well in a couple locations in Portland Metro area
- Can have attachments, such as a landscape plan and management plan

Cons

- Lots of back and forth editing usually
- Not designed for huge pieces of property with difficult terrain. Mainly has been used for highway strips adjacent to businesses.
- Track record for follow through hasn't been very good

Stewardship Agreement

Legal written agreement between ODOT and a non-profit organization, where the non-profit agrees to provide long-term management of the landscape, for the purpose of restoring and/or protecting habitat and/or stream corridors.

Pros

- Seems the most applicable for the West Linn site situation, due to planning and implementation costs, complex site terrain and access limitations, and need for long-term oversight.
ODOT Office of Innovative Partnerships & Alternative Funding
- A new method that seems to be gaining interest and momentum

Cons

- ODOT has never done one (?)
- Increased legal costs beyond a normal maintenance agreement

- Lots of effort needed to coordinate and commit partners

Surplus Property

Part of state right-of-way is declared “surplus” by the ODOT Region office, and can then be sold. Once sold, it becomes a separate tax lot that can be owned by an individual or other non-state entity.

Pros

- Reduces area ODOT is responsible for
- Provides control for adjoining property owner, if they're the party that buys it
- Fairly good feedback so far from Region that ODOT doesn't need the top bench for anything

Cons

- Process is VERY expensive and VERY time-consuming (survey, appraisal, city and county subdivision modification, legal caveats, etc)
- No guarantee that the Region will agree that the area should be surplus or that adjacent owners or HOA will all agree.
- ODOT won't be able to dedicate resources towards this option unless there is a way to surplus a whole chunk (not small pieces to each adjacent owner)

ExhibitD

West Linn Solar Highway Site
Resource Enhancement Project – Potential Partners
2/10/10

* = Not yet contacted to screen for interest

BHT Neighborhood Association - Steve Garner, Rick Mishaga, Margaret Tolan

* Barrington Heights HOA – Margaret Juarez

* Metro Greenspace – Jane Hart

* Clackamas County Environmental Youth Corps – Ron Kroop has an established connection

* Friends of Trees – Logan Louvray

* Nature Conservancy – Jason Dumont

* Boy Scouts - ??

* Inmate Crews – Ron Kroop has an established connection

City of West Linn Parks and Recreation – Zach Pelz

* Oregon Association of Nurseries – Jeff Stone

* Defenders of Wildlife – Sara Vickerman

* SunWay 4 (PGE) - Mark Osborn

* City of Portland, Bureau of Environmental Services (BES) – James Allison

Oregon Department of Fish & Wildlife (trees for stream restoration projects) – Jim Brick

CleanWater Services (trees for stream restoration projects) – Anil Devnani

ODOT Team: Lynn Averbeck (Project Manager), Ron Kroop (District Manager), Susan Hanson (Community Affairs), Magnus Bernhardt (Landscape Architect), Gail Harbert (Property Management), Mark Buffington (Landscape Manager), Ron Hamilton (Surveyor), Michelle Smith (Agreements)

Things to work on:

- find an entity to implement and manage for the long-run
- determine what type of agreement is appropriate and who has to sign it
- draft agreement for review and approval
- define all costs and find funding
- determine a reasonable schedule
- restoration and long-term management plan