RESOLUTION NO. 02-13

A RESOLUTION OF THE BOARD OF ZONING ADJUSTMENTS OF THE CITY OF SAN LEANDRO

APPROVING A HEIGHT VARIANCE FOR THE HALUS WIND TURBINE APPLICATION PLN2012-00006

WHEREAS, Halus Power Systems (Applicant) proposes to construct a single wind turbine on an approximately 4.7 acre site at 2539 Grant Avenue. The turbine structure would include an 80 foot tall pole, the turbine mounted on top of the pole, and three blades with a diameter of 20 feet each, thus making it 100 feet tall to the top rotation point. The base of the structure would be approximately six feet in diameter and taper to three feet in diameter at the top and attachment of the turbine. The proposed use is permitted by right, however the height exceeds zoning ordinance standards; therefore, the Applicant has requested a variance from the height standards. The proposal is referred to herein as the Project; and

WHEREAS, the Project site is a flag-shaped lot on the north side of Grant Avenue, zoned IG-Industrial General, and developed with a warehouse and outdoor storage of equipment and turbine structures. To the north of the Project site are the San Lorenzo Creek flood control channel and the Heron Bay residential development. Existing developed industrial sites are south, east and west of the site; and

WHEREAS, on February 7, 2013, the Board of Zoning Adjustments adopted a revised Mitigated Negative Declaration for the Project in accordance with CEQA and the CEQA Guidelines (Resolution 01-13, attached as Exhibit A and incorporated herein by reference); and

WHEREAS, a staff report, dated February 7, 2013, described and analyzed the revised Mitigated Negative Declaration, including comments and responses, and the Project for the Board of Zoning Adjustments, which report is on file with the City and incorporated herein by reference; and

WHEREAS, the staff report recommended approval of the variance based on findings required in the zoning ordinance and subject to conditions of approval. The findings are attached as Exhibit B and incorporated herein by reference; the conditions of approval are attached as Exhibit C and incorporated herein by reference.

WHEREAS, the Board of Zoning Adjustments reviewed the staff report, the revised Mitigated Negative Declaration, including comments and responses, at a noticed public hearing on February 7, 2013 at which time all interested parties had the opportunity to be heard; and

NOW, THEREFORE, BE IT RESOLVED THAT:

A. The foregoing recitals are true and correct and made a part of this resolution.

B. The Board of Zoning Adjustments reviewed and considered the revised Mitigated Negative Declaration, including comments received during the public review period and the City's written responses to comments, prior to acting on the Project.

C. Based on the whole of the record, the Board of Zoning Adjustments hereby approves the height variance to allow a wind turbine structure with a maximum height of 100 feet, based on the variance findings in attached Exhibit B and subject to the conditions of approval in attached Exhibit C, both of which exhibits are incorporated herein by reference.

PASSED, APPROVED, AND ADOPTED this 7th day of February, 2013 by the following vote:

AYES: Members Daly, Thomas, Vice Chair Mendieta, Chair Houston	**(4)**
NOES: None	**(0)**
ABSENT: Members Abelee, Makin, Palma	**(3)**
ABSTAIN: None	**(0)**

Catherine Vierra Houston, Chairperson

ATTEST:

Sally Barros, Secretary

EXHIBIT A

RESOLUTION NO. 01-13

A RESOLUTION OF THE BOARD OF ZONING ADJUSTMENTS
OF THE CITY OF SAN LEANDRO

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RESOLUTION NO. 01-13

A RESOLUTION OF THE BOARD OF ZONING ADJUSTMENTS OF THE CITY OF SAN LEANDRO

ADOPTING A MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING PROGRAM FOR THE HALUS WIND TURBINE APPLICATION PLN2012-00006

WHEREAS, Halus Power Systems (Applicant) proposes to construct a single wind turbine on an approximately 4.7 acre site at 2539 Grant Avenue. The turbine structure would include an 80 foot tall pole, the turbine mounted on top of the pole, and three blades with a diameter of 20 feet each, thus making it 100 feet tall to the top rotation point. The base of the structure would be approximately six feet in diameter and taper to three feet in diameter at the top and attachment of the turbine. The proposed use is permitted by right, however the height exceeds zoning ordinance standards; therefore, the Applicant has requested a variance from the height standards. The proposal is referred to herein as the Project; and

WHEREAS, the Project site is a flag-shaped lot on the north side of Grant Avenue, zoned IG-Industrial General, and developed with a warehouse and outdoor storage of equipment and turbine structures. To the north of the Project site are the San Lorenzo Creek flood control channel and the Heron Bay residential development. Existing developed industrial sites are south, east and west of the site; and

WHEREAS, the City prepared an Initial Study consistent with CEQA Guidelines section 15063 and determined that a Mitigated Negative Declaration was required for the Project; and

WHEREAS, based on the Initial Study, the City prepared a Mitigated Negative Declaration (MND) dated May 22, 2012, which was circulated for public review for the required 30-day period. Following a meeting between the Applicant and the Heron Bay Homeowners Association on June 20, 2012, the City extended the public review period for an additional 40 days, to July 31, 2012; and

WHEREAS, based on the feedback from the June 20, 2012 meeting and written comments that had been submitted on the MND, the City determined that additional information was needed on the Project. The City prepared a revised Mitigated Negative Declaration (revised MND), dated October 11, 2012, and reflecting its independent judgment and analysis on the potential for environmental impacts from implementation of the Project. The revised MND

superseded the first MND and was circulated for public review for the required 30-day period, ending November 13, 2012. The revised MND is attached as Exhibit A and incorporated herein by reference; and

WHEREAS, the City received extensive comments on the revised MND from the Heron Bay Association through its attorney, including a supporting report from Paul Taylor, as well as comments from the President of the Association. Comments were also received from individuals, including residents of Heron Bay. No comments were received from any public agency during the comment period; and

WHEREAS, although not required by CEQA, the City prepared written responses to the comments on the revised MND in a Responses to Comments document dated January 29, 2013, which responses provide the City's good faith, reasoned analysis of the environmental issues raised by the comments from the Association and individuals. Because the Association comments were so extensive and addressed all of the revised MND, the City responded only to the amended comments from the Association, including the amended Taylor report and President Lee's comments, and not their comments on the first MND. The Responses to Comments document is attached as Exhibit B and incorporated herein by reference. It includes all the comment letters received during the public review period and the City's responses to them; and

WHEREAS, the City carefully reviewed the comments and written responses, including information developed in the course of preparing the responses, and determined that the comments and responses did not constitute or require substantial revisions to the revised Mitigated Negative Declaration. On these bases, the City determined that no recirculation of the revised MND was required pursuant to CEQA Guidelines section 15073.5; and

WHEREAS, a staff report, dated February 7, 2013 and incorporated herein by reference, described and analyzed the draft revised Mitigated Negative Declaration, including comments and responses, and the Project for the Board of Zoning Adjustments, which report is attached as Exhibit C and incorporated herein by reference; and

WHEREAS, the Board of Zoning Adjustments reviewed the staff report, the draft revised Mitigated Negative Declaration, including comments and responses, at a noticed public hearing on February 7, 2013 at which time all interested parties had the opportunity to be heard; and

WHEREAS, the revised Mitigated Negative Declaration identifies mitigation measures applicable to the Project, therefore a Mitigation Monitoring Program must be adopted in conjunction with any Project approval (see Exhibit D, incorporated herein by reference); and

WHEREAS, the revised Mitigated Negative Declaration and related project and environmental documents, and all of the documents incorporated herein by reference, are available for review in the Planning Services Division at City Hall, 835 East 14th Street, San Leandro, California 94577, during normal business hours. The location and custodian of the draft revised Mitigated Negative Declaration and other documents that constitute the record of proceedings for the Project is the City of San Leandro Planning Services Division, attn: Elmer Penaranda.

NOW, THEREFORE, BE IT RESOLVED THAT:

A. The foregoing recitals are true and correct and made a part of this resolution.

B. The Board of Zoning Adjustments has reviewed and considered the draft revised Mitigated Negative Declaration, including comments received during the public review period and the City's written responses to comments, prior to acting on the Project.

C. The revised Mitigated Negative Declaration adequately describes the environmental impacts of the Project. On the basis of the whole record before it, the Board of Zoning Adjustments finds that the Project, as mitigated, would avoid or reduce the potentially significant biology, geology and airport hazard impacts to a point where clearly no significant effects would occur, and, there is no substantial evidence that the Project as mitigated may have a significant effect on the environment. The Board of Zoning Adjustments further finds as follows:

1. Based on the whole record, including but not limited to the revised MND with responses to comments, and all supporting information, studies, and evidence, there is no substantial evidence supporting a fair argument of significant impact from the Project.

2. The revised MND was prepared and considered in a fully public process, consistent with all public notice and participation requirements of CEQA and the CEQA Guidelines.

3. Extensive comments were submitted on the revised MND but none of the comments constitutes substantial evidence of a fair argument of significant environmental impact, as further detailed in the written responses to comments and summarized briefly below.

Aesthetics. There are no public scenic views or vistas substantially affected by the Project. The Bay Trail is not adjacent to the Project site; the Project site is in the opposite direction of the bay and marshlands relative to the Bay Trail. The Project site is not in or adjacent to the bay and marshlands; it is inland of them. The "trail" adjacent to the Project site is a gated flood control maintenance area where public use and access is

not authorized. Photographs in the record are among the factual supports for the revised MND conclusions on public views and vistas. The City recognizes that personal observations may be relevant on non-technical subjects such as aesthetics, however, the observations must still be based on facts. No factual evidence of public views or vistas substantially affected by the Project was presented.

Many of the personal observations addressed private views from individual backyards. The number of affected personal views is limited to a few homes along the south Heron Bay boundary, over 500' away. This is not a substantial impact under CEQA as any potential impact is limited to a small number of private views.

The revised MND conclusion of no potential for significant impact due to shadowing was supported by a technical study from an ESA expert on the subject. Paul Taylor, on behalf of the Association, shows no evidence of expertise on the subject.

Biology. The revised MND was circulated to both public agencies primarily concerned with biological resources along the bayfront, especially avian species. Neither agency, the State Department of Fish and Game (now known as Department of Fish and Wildlife), and the East Bay Regional Parks District, submitted any comments on the revised MND. The CDFW's recommendations were incorporated into the revised MND. The revised MND was further based on a technical study by ESA, a well-known Bay Area environmental consulting firm with experience in biological and avian resources in the nearby bay and marsh areas. The Association's purported expert shows no expertise in biological resources generally or avian resources or shorebirds; his evidence is not expert advice supported by facts.

Aircraft navigational radar. The revised MND discloses the pertinent permit requirements from the ACALUC and FAA, which are incorporated as mitigation measures. The Project has since received clearance from the FAA, which clearance is included in the responses to comments. The Association's purported expert shows no expertise in radar, aeronautics, airport operations or regulations; his evidence is not expert advice supported by facts.

Noise. The revised MND finds no potential for significant impact, based on the manufacturer's noise specifications showing noise levels would not exceed 55 dB at the Project property line, which complies with City standards for industrial (and residential) uses. The Association's purported expert shows no expertise in noise analysis; his evidence is not expert advice supported by facts.

Property values and economic hardship. Social and economic changes are not an environmental impact under CEQA.

Risk of failure or abandonment. The Project must comply with all applicable building code and other development requirements. There is no substantial evidence, e.g., studies, opinions based on fact from a qualified expert on turbine systems to support the Association speculations on this subject.

D. The revised Mitigated Negative Declaration has been completed in compliance with CEQA and the CEQA Guidelines.

E. The revised Mitigated Negative Declaration is complete and adequate and reflects the City's independent judgment and analysis as to the environmental effects of the Halus Wind Turbine Project.

BE IT FURTHER RESOLVED that based on the above findings, the Board of Zoning Adjustments adopts the following:

A. Mitigated Negative Declaration. The Board of Zoning Adjustments hereby adopts the revised Mitigated Negative Declaration for the Halus project, consisting of the Initial Study/Mitigated Negative Declaration dated October 11, 2013, and the Responses to Comments dated January 29, 2013, which documents are attached as Exhibits A and B and incorporated herein by reference.

B. Mitigation Monitoring Program. The Board of Zoning Adjustments hereby adopts the Mitigation Monitoring Program attached as Exhibit D and incorporated herein by reference.

PASSED, APPROVED, AND ADOPTED this 7th day of February, 2013 by the following vote:

AYES: Members Daly, Thomas, Vice Chair Mendieta, Chair Houston	**(4)**
NOES: None	**(0)**
ABSENT: Members Abelee, Makin, Palma	**(3)**
ABSTAIN: None	**(0)**

_____
Catherine Vierra Houston, Chairperson

ATTEST:

_____
Sally Barros, Secretary

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EXHIBIT A

Revised Mitigated Negative Declaration

CITY OF SAN LEANDRO

MITIGATED NEGATIVE DECLARATION

Notice is hereby given that the City of San Leandro finds that no significant effect on the environment as prescribed by the California Environmental Quality Act of 1970, as amended will occur for the following proposed project:

I. **PROJECT NAME:** Halus Power Systems Wind Turbine (PLN2012-00006)

II. **PROJECT APPLICANT:** Louis Rigaud, Halus Power Systems, 2539 Grant Avenue, San Leandro, California 94579

III. **PROJECT LOCATION:** 2539 Grant Avenue, San Leandro, CA 94579 (APN 080G-0910-015-00)

IV. **PROJECT DESCRIPTION:**

The proposed project is an 80-foot tall, single wind turbine to be located at 2539 Grant Avenue, San Leandro, CA 94579. Blades will extend an additional 20 feet from the structure for a maximum height of 100 feet. The turbine will operate at times when wind conditions are suitable and the blades will rotate at a maximum of 44 revolutions per minute (rpm's). The proposed turbine will generate a peak of approximately 50 kilowatt (kW) of electricity. The annual production is expected to be about 75,000 kilowatt hours (kWh's). Noise levels for the proposed wind turbine are anticipated to not exceed 55 deciBels Adjusted (dBA). The proposed wind turbine will be located on a monopole in the interior of the site. Structures up to sixty (60) feet in height are permitted in the IG Zoning District and a variance to height is required for exceeding 60 feet. The proposed turbine and supporting structure would be an accessory use to the primary manufacturing/research and development use of the site.

V. **MANDATORY FINDINGS OF SIGNIFICANCE**

The Community Development Director finds, based on the initial study, that the proposed project as described above will not have a significant effect on the environment and therefore does not require an environmental impact report. The mitigation measures identified herein would reduce all impacts to a less than significant level. Therefore, there is no substantial evidence, in light of the whole record before the agency, that the project, with mitigations, may have a significant effect on the environment.

VI. **IDENTIFICATION OF ENVIRONMENTAL EFFECTS**

An Initial Study conducted by the City of San Leandro (including an attached checklist) determined that the proposed project, with incorporated mitigation measures, will reduce any project impacts to a less than significant level. This Mitigated Negative Declaration has been prepared in accordance with Section 15070 of the State of California Environmental Quality Act (CEQA) Guidelines.

A. The proposed project has been reviewed according to the standards and requirements of the California Environmental Quality Act (CEQA) and an Initial Study Environmental

Evaluation Checklist has been prepared with a determination that the project will not have a significant impact on the environment and as long as the applicant complies with all identified mitigation measures.

B. The project area is located within the seismically-active Bay Area. Therefore, the project applicant would be required to comply with all applicable State and City regulations to address geologic hazards. The mitigation measures are conditions of approval.

VII. SUMMARY OF MITIGATION MEASURES

Mitigation Measure

#1a. ~~If construction must be scheduled to occur during the migratory bird and raptor nesting season (February 15 through August 15 for most birds), a~~ A qualified wildlife biologist, familiar with the species and habitats in the Project area, will be retained to conduct pre-construction surveys for raptors and nesting birds within 300 feet of construction activities. The surveys shall be conducted one week before initiation of construction. If no active nests are detected during surveys, activities may proceed. If active nests are detected then the applicant should consult with the Lead Agency and DFG on appropriate buffers. (BZA amended this measure by motion at its February 7, 2013 meeting.).

#1b. To reduce impacts to raptors, the applicant shall minimize small mammal habitat from occurring beneath the wind swept area of the turbine.

#1c. To reduce impacts to avian species from electrocution, all electrical wires shall be placed underground or follow minimization methods established by Avian Power Line Interaction Committee.

#1d. If a state or federally listed species is killed during Project operations without the appropriate Incidental Take Permit (ITP) under the California Endangered Species Act (CESA) or the federal Endangered Species Act, the applicant shall halt all turbine operations immediately. The applicant must consult with the United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Game (DFG).

#1e. If a carcass is found that is federally threatened, endangered or protected by the Migratory Bird Treaty Act (MBTA), the information shall be reported by a qualified biologist to USFWS, Office of Law Enforcement, Renewable Energy Officer at (650) 876-9078 within five days of its discovery.

#1f. If a carcass of a species listed pursuant to CESA or Fish and Game Code Section 3511 is discovered , DFG shall be immediately notified at (707) 944-5500.

#1g. If a species is injured as a result of Project operations, the applicant shall immediately take it to a DFG approved wildlife rehabilitation or veterinary facility, such as Sulphur Creek Nature Center, at (510) 881-6747; or Ohlone Humane Center, at (510) 797-9449. Permittee shall bear any costs associated with the care and treatment of such injured species.

#1h. A post-construction monitoring plan shall be approved by DFG and implemented within one month of initial turbine operation.

#1i. Turbine may not operate in heavy rain or dense fog. (BZA added this measure by motion at its February 7, 2013 meeting for the purpose of protecting avian species.).

Mitigation Measure #2: The City of San Leandro has incorporated the 2009 International Building Code into its municipal building code (Title 7, Chapter 7-5). The project applicant would be required to comply with all applicable State and City regulations to address potential geologic hazards associated with the proposed project, including ground shaking and liquefaction. Geotechnical and seismic design criteria must conform to engineering recommendations in accordance with the seismic requirements of the 2009 California Building Code (Title 24) and any amendments adopted in the San Leandro Municipal Code. Additionally, because the project site is in a liquefaction Seismic Hazard Zone, the project applicant will be required to comply with the guidelines set forth by California Geological Survey Special Publication 117.

Mitigation Measure #3: Halus Power Systems shall secure approval of Alameda County Airport Land Use Commission and the Federal Aviation Administration prior to building permit approval of the wind turbine.

VIII. PERSON WHO PREPARED INITIAL STUDY:

Kathleen Livermore / EP
Kathleen Livermore, Contract Planner

Date: October 11, 2012 (amended 2-7-2013) EP

IX. REVIEW PERIOD:

The review period is from October 12, 2012 to November 13, 2012. All written comments regarding this Mitigated Negative Declaration must be received by the City of San Leandro, Planning Services Division, 835 East 14th Street, San Leandro, California 94577, no later than 4:00 p.m., November 13, 2012.

A Board of Zoning Adjustments regular meeting has been scheduled for December 6, 2012. Written and oral comments may also be made during this public meeting. Final action on the Mitigated Negative Declaration and proposed project will be taken by the Board of Zoning Adjustments unless appealed to the City Council.

COPY OF INITIAL STUDY IS ATTACHED

For additional information, please contact the City of San Leandro, Planning Services Division, 835 East 14th Street, San Leandro, California 94577, Telephone (510) 577-3314, or e-mail epenaranda@sanleandro.org

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CITY OF SAN LEANDRO
DEPARTMENT OF DEVELOPMENT SERVICES
Planning Division

INITIAL STUDY CHECKLIST FORM

1. **Project Title:** Halus Power Systems Wind Turbine (PLN2012-00006).

2. **Lead Agency Name and Address:** City of San Leandro
835 East 14th Street
San Leandro, California 94577

3. **Contact Person and Phone Number:** Elmer Penaranda
(510) 577-3314

4. **Project Location:** 2539 Grant Avenue, San Leandro, California
APN 080G-0910-015-00

5. **Project Sponsor's Name and Address:** Halus Power Systems
Louis Rigaud
2539 Grant Avenue
San Leandro, California 94579

6. **General Plan Designation:** General Industrial (IG)

7. **Zoning:** Industrial General (IG)

8. **Project Description:** The proposed project is an 80-foot tall, single wind turbine to be located at 2539 Grant Avenue, San Leandro, CA 94579. Blades will extend an additional 20 feet from the structure for a maximum height of 100 feet. The turbine will operate at times when wind conditions are suitable and the blades will rotate at a maximum of 44 revolutions per minute (rpm's). The proposed turbine will generate a peak of approximately 50 kilowatt (kW) of electricity. The annual production is expected to be about 75,000 kilowatt hours (kWh's). Noise levels for the proposed wind turbine are anticipated to not exceed 55 deciBels Adjusted (dBA). The proposed wind turbine will be located on a monopole in the interior of the site. Structures up to sixty (60) feet in height are permitted in the IG Zoning District and a variance to height is required for exceeding 60 feet. The proposed turbine and supporting structure would be an accessory use to the primary manufacturing/research and development use of the site.

9. **Surrounding Land Uses and Setting:** Properties in the vicinity include adjacent recycling operation, warehousing and distribution facilities, Oro Loma Sanitary District wastewater operations, a PG&E electrical sub-station and large high-tension electrical lines. In addition, an 80-foot tall cellular telephone tower is located to the southwest. The Heron Bay residential community is located to the north across San Lorenzo Creek Storm water Drainage Channel.

10. **Other public agencies whose approval is required:** Alameda County Airport Land Use Commission, Federal Aviation Administration

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

x Aesthetics	☐ Agriculture Resources	☐ Air Quality
x Biological Resources	☐ Cultural Resources	x Geology/Soils

x Hazards & Hazardous Materials
☐ Mineral Resources
☐ Public Services
☐ Utilities/Service Systems
☐ Hydrology/Water Quality
x Noise
☐ Recreation
☐ Mandatory Findings of Significance
☐ Land Use/Planning
☐ Population/Housing
☐ Transportation/Traffic

DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

X I find that although the proposed project **COULD** have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. **A MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: Kathleen Livermore/kp **Date:** October 11, 2012

Printed name: Kathleen Livermore **Title:** Contract Planner

ENVIRONMENTAL IMPACTS:

Potentially Significant Impact	*Potentially Significant Unless Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*

I. **AESTHETICS.** *Would the project:*

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista? Comment: The proposed wind turbine is located in an industrial general zoning district with heavy industrial uses. Attachment 6 shows 11 photo simulations from various vantage points to illustrate how the proposed wind turbine would appear. The height of the tower and blade is similar or less than the height of PG&E high tension utility towers in the vicinity. The proposed wind turbine will be located on a monopole in the interior of the site. The monopole design reduces the profile and visibility of the structure, especially when compared to the lattice-structure design of the nearby electrical high tension wires. The photo simulations provide sufficient evidence that the project will not create an adverse effect on public or private scenic vistas. The photo simulations confirmed that the proposed turbine will be a minor visual addition to a district that has a sewage treatment plant, high tension wires and cellular network antennae. It will not obstruct westerly views of San Francisco Bay as it will be located to the east of the bay and behind the PG&E substation and high tension lines. Therefore, there would not be a substantial adverse effect on scenic vistas.	☐	☐	X	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? Comment: The proposed wind turbine is located in an industrial general zoning district with industrial uses. The height of the tower and blade is similar or less than the height of PG&E high tension utility towers in the vicinity. The subject property is not located along a scenic highway. There would not be a substantial adverse effect on scenic resources.	☐	☐	☐	X
c. Substantially degrade the existing visual character or quality of the site and its surroundings? Comment: The proposed wind turbine is located in an area that is already occupied by heavy industrial uses including the Oro Loma Sewage Treatment Plant, the PG&E substation with high-tension wires and an adjacent junk yard. The existing visual character is of industrial uses. Open space to the northwest is already compromised with the Pacific Gas and Electric high tension utility towers. The proposed wind turbine would be compatible with the existing visual character of the area. The photo simulations support these findings. Therefore, the wind turbine would not substantially degrade the existing visual character or quality of the site and its surroundings.	☐	☐	X	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? Comment: The proposed wind turbine would not create a new source of light or glare as no exterior lighting is proposed or required.	☐	☐	☐	X

II. AGRICULTURE RESOURCES. *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:*

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? Comment: There is no designated farmland in San Leandro.	☐	☐	☐	X

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? Comment: There is no land within San Leandro that is subject to a Williamson Act contract. Furthermore, the proposed wind turbine is located on land zoned and used for industrial general purposes.	☐	☐	☐	X
c. Involve other changes in the existing environment which due to their location or nature, could result in conversion of Farmland, to non-agricultural use? Comment: There is no designated farmland in San Leandro.	☐	☐	☐	X

III. AIR QUALITY. *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:*

a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	X
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	X
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	X
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	X
e. Create objectionable odors affecting a substantial number of people? Comment a.-e: The proposed wind turbine would not create any air emission and would not generate traffic that could contribute to cumulative air quality impacts. Also, the wind turbine could provide valuable information on this type of alternative energy source, which could reduce reliance on carbon-emitting fossil fuels.	☐	☐	☐	X

IV. BIOLOGICAL RESOURCES. *Would the project:*

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	X	☐	☐

Comment: A Technical Memorandum, dated May 10, 2012, was prepared by Environmental Science Associates (ESA) to evaluate potential impacts to avian species resulting from construction of the wind turbine. The study concluded that bird species at highest risk in the area are populations of California clapper rails and California black rails. Any risk to these populations would be greatly reduced due to the distance from the habitat area and the rails' ground-dwelling behavior and relatively little time spent in flight. Bird fatalities are relatively infrequent events at wind farms and therefore a single wind turbine poses little risk. Higher bird fatalities occur at altitudes greater than 400 feet. Based on comparison of available data, it is estimated that the small turbine would result in 0.152 bird deaths per year. At that rate, it would take 6.5 years of continuous operation to result in the death of one bird. Please see the Technical Memorandum for additional information.

The proposed wind turbine was reviewed by the California Department of Fish and Game. In a letter from Scott Wilson, Acting Regional Manager of the Bay Delta Region, several mitigation measures were recommended for inclusion in this document. The following mitigation measures are therefore included:

Mitigation Measure

#1a. If construction must be scheduled to occur during the migratory bird and raptor nesting season (February 15 through August 15 for most birds), a qualified wildlife biologist, familiar with the species and habitats in the Project area, will be retained to conduct pre-construction surveys for raptors and nesting birds within 300 feet of construction activities. The surveys shall be conducted one week before initiation of construction. If no active nests are detected during surveys, activities may proceed. If active nests are detected then the applicant should consult with the Lead Agency and DFG on appropriate buffers.

#1b. To reduce impacts to raptors, the applicant shall minimize small mammal habitat from occurring beneath the wind swept area of the turbine.

#1c. To reduce impacts to avian species from electrocution, all electrical wires shall be placed underground or follow minimization methods established by Avian Power Line Interaction Committee.

#1d. If a state or federally listed species is killed during Project operations without the appropriate Incidental Take Permit (ITP) under the California Endangered Species Act (CESA) or the federal Endangered Species Act, the applicant shall halt all turbine operations immediately. The applicant must consult with the United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Game (DFG).

#1e. If a carcass is found that is federally threatened, endangered or protected by the Migratory Bird Treaty Act (MBTA), the information shall be reported by a qualified biologist to USFWS, Office of Law Enforcement, Renewable Energy Officer at (650) 876-9078 within five days of its discovery.

#1f. If a carcass of a species listed pursuant to CESA or Fish and Game Code Section 3511 is discovered , DFG shall be immediately notified at (707) 944-5500.

#1g. If a species is injured as a result of Project operations, the applicant shall immediately take it to a DFG approved wildlife rehabilitation or veterinary facility, such as Sulphur Creek Nature Center, at (510) 881-6747; or Ohlone Humane Center, at (510) 797-9449. Permittee shall bear any costs associated with the care and treatment of such injured species.

#1h. A post-construction monitoring plan shall be approved by DFG and implemented within one month of initial turbine operation.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? Comment: The proposed wind turbine was reviewed by the California Department of Fish and Game. In a letter from Scott Wilson, Acting Regional Manager of the Bay Delta Region, several mitigation measures were recommended for inclusion in this document (see Mitigation Measures 1a. through 1h above). Inclusion of these Mitigation Measures would reduce any impacts on riparian habitat or other sensitive communities to a less than significant level.	☐	☐	X	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? Comment: The proposed wind turbine is not anticipated to have substantial adverse effects on federally protected wetlands and will not result in any direct removal, filling, hydrological interruption or other means. The wind turbine is proposed to be placed on a developed property in the Industrial General Zoning District. The proposal was reviewed by the California Department of Fish and Game. In a letter from Scott Wilson, Acting Regional Manager of the Bay Delta Region, several mitigation measures were recommended for inclusion in this document. No impacts to federally protected wetlands were identified as the project will not result in any direct removal, filling, hydrological interruption of marshes, vernal pools, coastal areas etc., therefore no mitigations are required.	☐	☐	☐	X
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? Comment: The proposed wind turbine was reviewed by the California Department of Fish and Game. In a letter from Scott Wilson, Acting Regional Manager of the Bay Delta Region, several mitigation measures were recommended for inclusion in this document (see Mitigation Measures 1a. through 1h above). Inclusion of these Mitigation Measures would reduce any impacts on native resident or wildlife species or corridors to a less than significant level.	☐	☐	X	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances? Comment: The proposed wind turbine is not anticipated to conflict with policies or ordinances protecting biological resources. The wind turbine is proposed to be placed on a property in the Industrial General Zoning District.	☐	☐	☐	X
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? Comment: The proposed wind turbine is not anticipated to conflict with any Habitat Conservation Plan, Natural Community Conservation Plan or other habitat conservation plan. The wind turbine is proposed to be placed on a property in the Industrial General Zoning District.	☐	☐	☐	X

V. CULTURAL RESOURCES. *Would the project:*

a. Cause a substantial adverse change in the significance of a historical resource as defined in Sec. 15064.5? Comment: The proposed wind turbine will not result in any substantial adverse change in the significance of a historical resource.	☐	☐	☐	X

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Sec. 15064.5? Comment: The proposed wind turbine will not cause a substantial adverse change in the significance of an archaeological resource.	☐	☐	☐	X
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Comment: The proposed wind turbine will not destroy a unique paleontological resource or unique geologic feature.	☐	☐	☐	X
d. Disturb any human remains, including those interred outside of formal cemeteries? Comment: The proposed wind turbine will not disturb any human remains.	☐	☐	☐	X

VI. GEOLOGY AND SOILS. *Would the project:*

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.	☐	X	☐	☐
ii) Strong seismic ground shaking?	☐	X	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	X	☐	☐
iv) Landslides?	☐	☐	☐	X
b. Result in substantial soil erosion or loss of topsoil?	☐	☐	☐	X
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, (excavation, grading, clearing, grubbing or fill) and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	X
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (21,27)	☐	☐	☐	X

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (n/a) Comment: a) i. The Alquist-Priolo Earthquake Fault The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones along sufficiently active and well defined faults by the California Department of Conservation, Geological Survey (CGS). The project site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the sites. The nearest active fault to the project sites are the Hayward fault, approximately 3 miles to the northeast; the Calaveras to the northeast; and the San Andreas to the southwest. Therefore, no fault rupture hazards are anticipated with project implementation. ii, iii. In 2002, the U.S. Geologic Survey (USGS) predicted a 62 percent probability of a magnitude 6.7 or greater earthquake occurring in the San Francisco Bay Area by the year 2032. During a major earthquake on a segment of one of the nearby faults, strong shaking is expected to occur at the project sites. The project sites are also within a designated liquefaction hazard zone. Strong shaking during an earthquake can result in ground failure such as that associated with soil liquefaction, lateral spreading and cyclic densification. Therefore, mitigation of potential liquefaction hazards is required with project implementation. **Mitigation Measure #2: The City of San Leandro has incorporated the 2009 International Building Code into its municipal building code (Title 7, Chapter 7-5). The project applicant would be required to comply with all applicable State and City regulations to address potential geologic hazards associated with the proposed project, including ground shaking and liquefaction. Geotechnical and seismic design criteria must conform to engineering recommendations in accordance with the seismic requirements of the 2009 California Building Code (Title 24) and any amendments adopted in the San Leandro Municipal Code. Additionally, because the project site is in a liquefaction Seismic Hazard Zone, the project applicant will be required to comply with the guidelines set forth by California Geological Survey Special Publication 117.** iv. The site is relatively flat and not located in a landslide zone. b) The placement of the wind turbine will involve minimal disturbance of the site with a footprint of 20 feet by 20 feet or 400 square feet. c) Compliance with Mitigation Measure #1 above will result in a less than significant impact with respect to on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse potential impacts. d) Compliance with Mitigation Measure #1 above will result in a less than significant impact with respect to expansive soil. e) No septic tanks are needed for the proposed wind turbine.	☐	☐	☐	X

VII. GREENHOUSE GAS EMISSIONS. *Would the project:*

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	X

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? Comment a.-b.: The proposed wind turbine would not create greenhouse gas emissions and would not generate traffic that could contribute to cumulative greenhouse gas impacts. (Source: American Planning Association, Planning Advisory Service Report Number 566: Planning For Wind Energy.) Also, the wind turbine could provide valuable information on this type of alternative energy source, which could reduce reliance on carbon-emitting fossil fuels.	☐	☐	☐	X

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	X	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	X	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? Comment a.-c.: Halus Power Systems has maintenance chemicals on-site and are required to have a Hazardous Material Business Plan (HMBP). The chemicals include coatings, paint and oil for the turbines and engines. The HMBP is current and they are in compliance with all city regulations. Halus Power Systems has passed their inspections, which are required once every two years. Compliance with their HMBP would reduce any potential hazardous materials impact to a less than significant level.	☐	☐	X	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? Comment: The property at 2539 Grant Avenue is not on a list of hazardous materials sites.	☐	☐	☐	X
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? Comment: The proposed wind turbine is subject to the regulations of the Alameda County Airport Land Use Commission and the Federal Aviation Administration requirements. The proposed wind turbine is at a height similar to the PG&E high tension wires. Halus must secure approval of both the Alameda County Airport Land Use Commission and the Federal Aviation Administration. **Mitigation Measure #3: Halus Power Systems shall secure approval of Alameda County Airport Land Use Commission and the Federal Aviation Administration prior to building permit approval of the wind turbine.**	☐	☐	X	☐
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? Comment: The proposed wind turbine is not within the vicinity of a private airstrip. They are subject to the regulations of the Alameda County Airport Land Use Commission. See Mitigation Measure #3 above.	☐	☐	☐	X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? Comment: The proposed wind turbine has a Hazardous Materials Business Plan and is not expected to interfere with any emergency response or evacuation plan.	☐	☐	X	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? Comment: The proposed wind turbine will not result in a wildland fire risk.	☐	☐	☐	X

IX. HYDROLOGY AND WATER QUALITY. *Would the project:*

a. Violate any water quality standards or waste discharge requirements?	☐	☐	☐	X
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	X
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	X
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	X
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	X
f. Otherwise substantially degrade water quality? Comment a.-f.: The placement of the wind turbine will involve minimal disturbance of the site with a footprint of 20 feet by 20 feet or 400 square feet. This placement is not anticipated to violate water quality standards or waste discharge requirements. It will not substantially deplete groundwater supplies or substantially alter the existing drainage pattern of the site, result in substantial erosion or increase the rate of runoff or otherwise substantially degrade water quality.	☐	☐	☐	X
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? Comment: The proposed wind turbine does not involve the placement of housing.	☐	☐	☐	X
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows? Comment: The proposed wind turbine is not in a 100-year flood zone.	☐	☐	☐	X
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? Comment: The proposed wind turbine would not expose people or structures to a flooding risk.	☐	☐	☐	X
j. Inundation by seiche, tsunami, or mudflow? Comment: The proposed wind turbine would not result in an inundation risk.	☐	☐	☐	X

X. LAND USE PLANNING. *Would the project:*

a. Physically divide an established community?	☐	☐	☐	X

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinances) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	X
c. Conflict with any applicable habitat conservation plan or natural community conservation plan? Comment a.-c.: The proposed wind turbine would not result in new construction that could divide a community or conflict with any land use policy or plan. It would not conflict with any habitat conservation or natural community conservation plan. The wind turbine is in compliance with San Leandro General Plan Policy 7.03 related to Sustainable Manufacturing as well as the San Leandro Climate Action Plan Goal 3.3 to increase residential, commercial and industrial renewable energy use.	☐	☐	☐	X

XI. MINERAL RESOURCES. *Would the project:*

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	X
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? Comment a.-b.: The proposed wind turbine will not result in any impacts to mineral resources.	☐	☐	☐	X

XII. NOISE. *Would the project result in:*

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinances, or applicable standards of other agencies?	☐	☐	X	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? Comment: The proposed wind turbine is not anticipated to result in groundborne vibration or noise levels.	☐	☐	☐	X
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
e. For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (n/a) Comment a., c.-f.: The proposed wind turbine is located in a General Industrial area. The nearest residences are located approximately 500 feet away and have been constructed to minimize noise from aircraft operations at the Oakland International Airport to the north. The manufacturer's noise specifications provided by the applicant confirm that the wind turbine is designed to not exceed 55 decibels. Further, the manufacturer specifications for this turbine state that there are no audible tones or impulses 56 meters or 184 feet from the turbine. This is within the acceptable range for industrial as well as residential uses. The General Plan lists 55 db as Normally Acceptable in the residential areas and 65-80 db as Normally Acceptable in the industrial areas. The proposed wind turbine placement would result in a less than significant noise impact.	☐	☐	X	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact

XIII. POPULATION AND HOUSING. *Would the project:*

a. Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses or indirectly (for example, through extension of roads or other infrastructure)? (1,3)	☐	☐	☐	X
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? Comment a.-c.: The proposed wind turbine will not involve any additional housing. It would not induce population growth, would not displace housing and would not displace people.	☐	☐	☐	X

XIV. PUBLIC SERVICES.

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	X
Police protection?	☐	☐	☐	X
Schools?	☐	☐	☐	X
Parks?	☐	☐	☐	X
Other public facilities? Comment: The proposed wind turbine would not increase the need for additional public services.	☐	☐	☐	X

XV. RECREATION.

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (5, 34),	☐	☐	☐	X
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? (1) Comment a.-b.: The proposed wind turbine would not result in additional recreational needs.	☐	☐	☐	X

XVI. TRANSPORTATION/TRAFFIC. *Would the project:*

a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	X

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
b. Exceed, either individually or cumulatively, a level of service standard established in the Growth Limitation Plan, the county congestion management agency for designated roads or highways?	☐	☐	☐	X
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (n/a)	☐	☐	☐	X
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (3,25)	☐	☐	☐	X
e. Result in inadequate emergency access?	☐	☐	☐	X
f. Result in inadequate parking capacity?	☐	☐	☐	X
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? Comment a.-g.: The proposed wind turbine would not increase traffic, change air traffic, increase hazards, impact emergency access, create inadequate parking or conflict with adopted policies or plans.	☐	☐	☐	X

XVII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	X
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	X
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	X
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	X
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	X
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	X
g. Comply with federal, state, and local statutes and regulations related to solid waste? Comment a.-g.: The proposed wind turbine would not exceed wastewater treatment requirements, would not require new water or wastewater treatment facilities, require new storm drainage facilities or expansion of facilities, require new water supplies, or exceed landfill requirements. The wind turbine will comply with all federal, state and local statutes and regulations related to solid waste.	☐	☐	☐	X

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? Comment: A Technical Memorandum, dated May 10, 2012, was prepared by Environmental Science Associates (ESA) to evaluate potential impacts to avian species resulting from construction of the wind turbine. The study concluded that bird species at highest risk in the area are populations of California clapper rails and California black rails. Any risk to these populations would be greatly reduced due to the distance from the habitat area and the rails' ground-dwelling behavior and relatively little time spent in flight. Bird fatalities are relatively infrequent events at wind farms and therefore a single wind turbine poses little risk. Higher bird fatalities occur at altitudes greater than 400 feet. Based on comparison of available data, it is estimated that the small turbine would result in 0.152 bird deaths per year. At that rate, it would take 6.5 years of continuous operation to result in the death of one bird. The proposed wind turbine was reviewed by the California Department of Fish and Game. In a letter from Scott Wilson, Acting Regional Manager of the Bay Delta Region, several mitigation measures were recommended for inclusion in this document (see Mitigation Measures 1a. through 1h above). Inclusion of these Mitigation Measures would reduce any impacts on wildlife to a less than significant level.	☐	X	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) Comment: The proposed wind turbine would not result in any impacts that are individually or cumulatively considerable.	☐	☐	X	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? Comment: The proposed wind turbine is located in a General Industrial area that is already subject to industrial uses. The existing visual character is of industrial uses. Open space to the northwest is already compromised with the Pacific Gas and Electric high tension utility towers. The proposed wind turbine would have a similar visual quality. The nearest residences are located approximately 500 feet away and have been constructed to minimize noise from aircraft operations at the Oakland International Airport to the north. The wind turbine is designed to not exceed 55 decibels. Further, the manufacturer specifications for this turbine state that there are no audible tones or impulses 56 meters or 184 feet from the turbine. This is within the acceptable range for industrial as well as residential uses. The proposed wind turbine placement would result in a less than significant noise impact. The proposed wind turbine will not result in any adverse effects on human beings, either directly or indirectly.	☐	☐	☐	X

ATTACHMENTS

1. Location Map
2. Illustrative Location Map with proposed location of turbine
3. Facility Map (Existing Conditions)
4. Proposed Site Plan (Dimensioned)
5. Noise/Sound Information
6. Photo Simulations
7. ESA Technical Memorandum: *"Potential Impacts to Avian Species Resulting from Construction of a Single Wind Turbine at Halus Power Systems in San Leandro, CA"*, dated May 10, 2012
8. ESA Technical Memorandum: *"Evaluation of Potential Shadows Proposed Vestas Wind Turbine, San Leandro, California"* dated September 20, 2012
9. Letter from Scott Wilson, California Department of Fish and Game dated June 29, 2012
10. Determination of No Hazard to Air Navigation from the Federal Aviation Administration dated June 21, 2012

INITIAL STUDY SOURCE LIST

Sources

1. *City of San Leandro General Plan*, Adopted May 2002.
2. *San Leandro General Plan Update Draft Environmental Impact Report*, Prepared by Barry Miller, AICP, November 2001.
3. *State of California Seismic Hazard Zones, San Leandro Quadrangle*, February 14, 2003.
4. California Geological Survey, *Special Publication 117: Guidelines for Evaluating and Mitigating Seismic Hazards in California*, Adopted March 13, 1997 by the State Mining and Geology Board in Accordance with the Seismic Hazards Mapping Act of 1990.
5. Stinson, M.C., M.W. Manson, and J.J. Plappert, *Mineral Land Classification: Aggregate Materials in the San Francisco – Monterey Bay Area, Part II: Classification of Aggregate Resource Areas, South San Francisco Bay Production – Consumption Region*, California Division of Mines and Geology, Special Report 146, Part II, 1983, 75 maps at scales 1:485,000, 1:250,000, 1:48,000, see Plate 2.40.
6. *California Code of Regulations, Section 15000 et seq. State CEQA Guidelines*.
7. *CEQA and Greenhouse Gas Analysis: What's Next?* By Gary Jakobs and Curtis Alling, June 16, 2009.
8. *Technical Advisory on CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, J
9. *American Planning Association, Planning Advisory Service Report Number 566: Planning For Wind Energy*
10. ESA Technical Memorandum: *"Potential Impacts to Avian Species Resulting from Construction of a Single Wind Turbine at Halus Power Systems in San Leandro, CA"*, dated May 10, 2012
11. ESA Technical Memorandum: *"Evaluation of Potential Shadows Proposed Vestas Wind Turbine, San Leandro, California"* dated September 20, 2012
12. Letter from Scott Wilson, California Department of Fish and Game dated June 29, 2012
13. Determination of No Hazard to Air Navigation from the Federal Aviation Administration dated June 21, 2012

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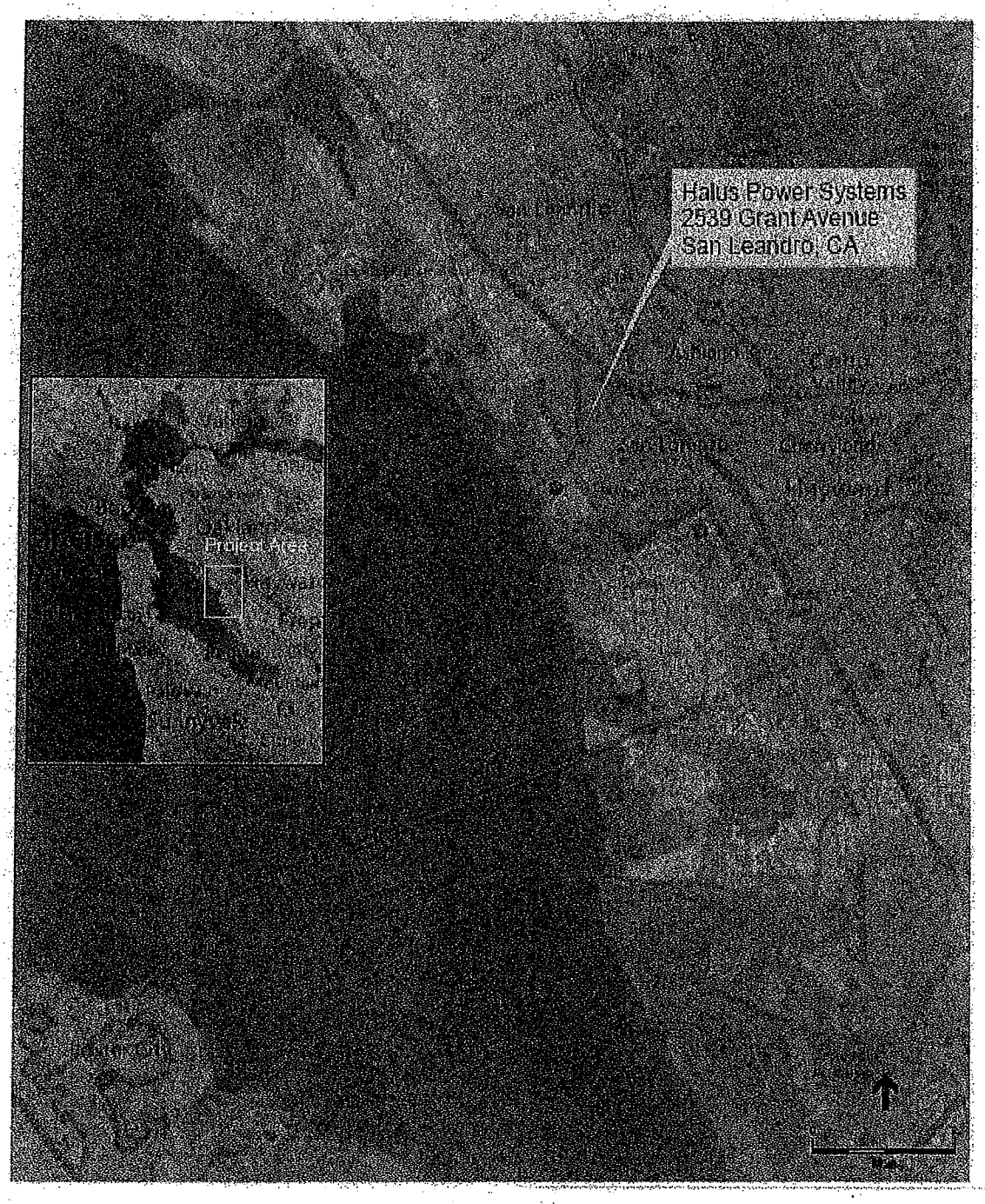
Location Map



Halus Power Systems
2539 Grant Avenue
San Leandro, California

Initial Study Checklist
Halus Power Systems Wind Turbine
Attachment 1

Illustrative Location Map
and Proposed Location of Turbine

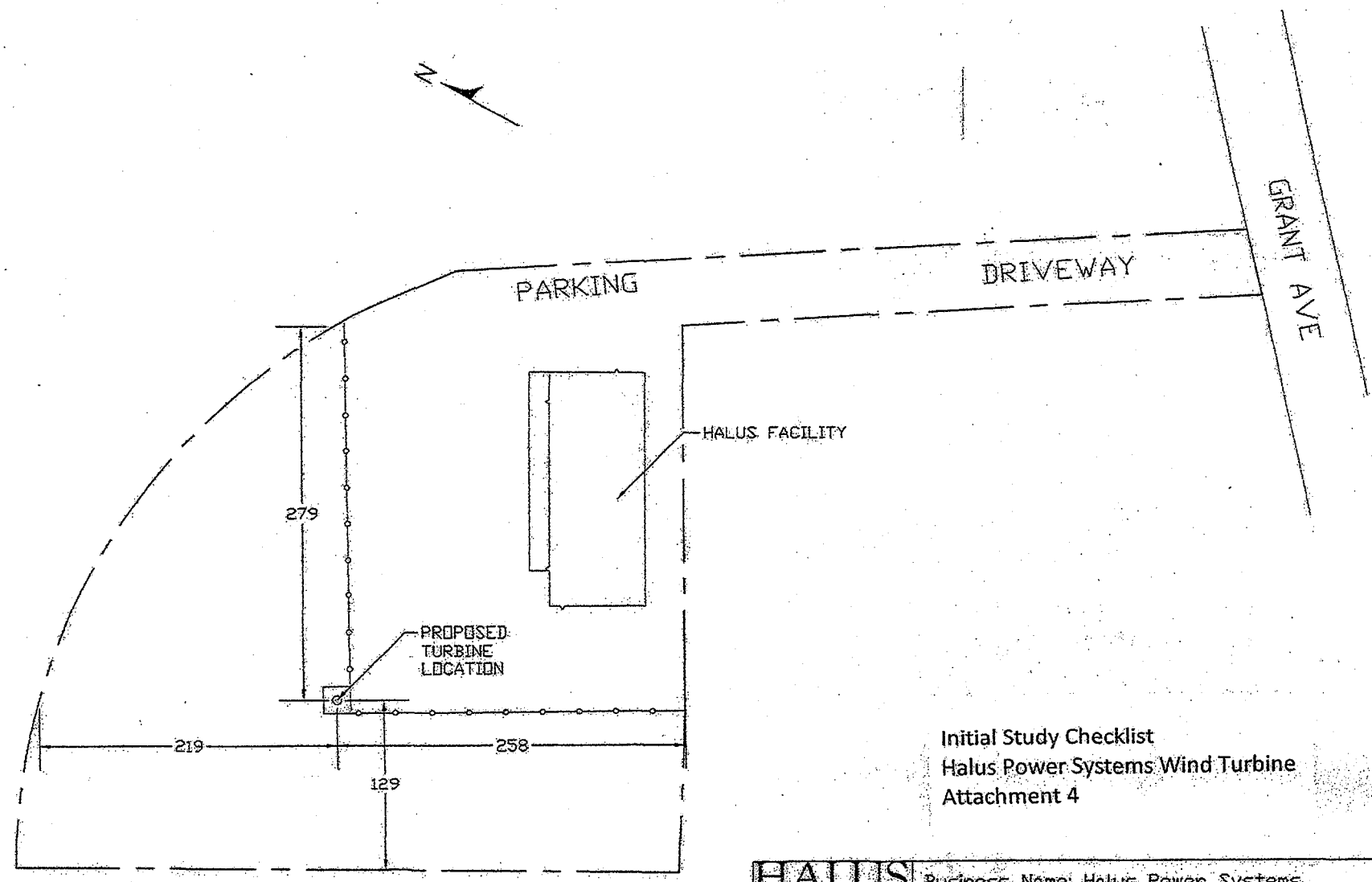
Halus Power Systems
2539 Grant Avenue
San Leandro, California

Initial Study Checklist
Halus Power Systems Wind Turbine
Attachment 2

Initial Study Checklist
Halus Power Systems Wind Turbine
Attachment 3

FACILITY MAP
SCALE (APPROX): 1" = 140'

HALUS POWER SYSTEMS	Business Name: Halus Power Systems			
	Facility Address: 2539 Grant Ave, San Leandro, CA 94579			
2539 Grant Ave San Leandro, CA 94579	SIZE A	FSCM NO.	DWG NO.	REV -
(510) 278-2212 fax (510) 278-2211 www.halus.com	SCALE NONE	DATE 3/1/12	SHEET	2 of 4



SITE PLAN

SCALE (APPROX): 1" = 100'

NOTES:

1. DIMENSIONS IN FEET, UNLESS NOTED OTHERWISE.

Initial Study Checklist
Halus Power Systems Wind Turbine
Attachment 4

HALUS POWER SYSTEMS

2539 Grant Ave
San Leandro, CA 94579
(510) 278-2212 Fax (510) 278-2211
www.halus.com

Business Name: Halus Power Systems

Facility Address:
2539 Grant Ave, San Leandro, CA 94579

SIZE: A | FSCM NO. | DWG NO. | REV

SCALE: NONE | DATE: 3/1/12 | SHEET: 3 of 4

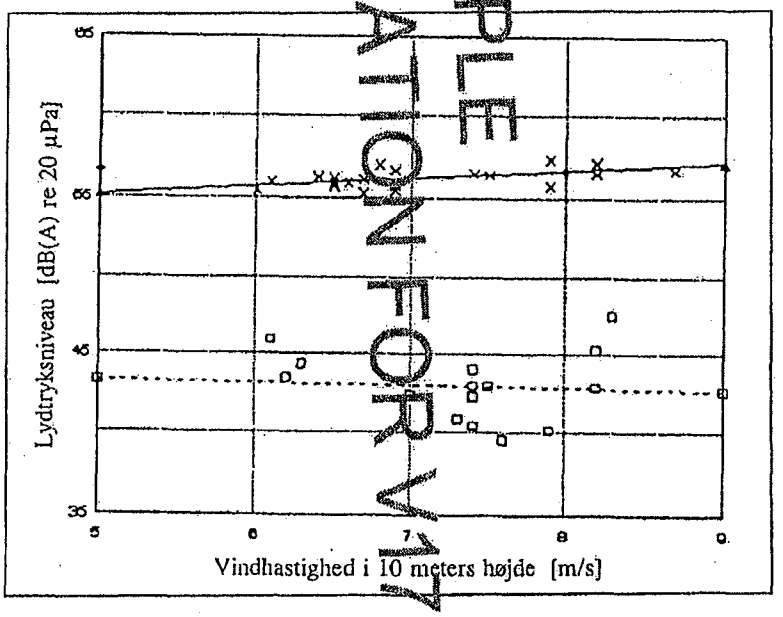
11. Encl. 2, Noise résumé of Vestas V29 -225 kW wind turbine

1. The measurement has been done under accreditation, registration no. 134, from DANAK by:

   Acoustica as
   Sohngårdsholmvej 2
   DK 9000 Aalborg
   Phone 45 98 113011
   Fax 45 98 117374

   Tripod Wind Energy is authorised by the Danish Ministry of Energy to carry out power curve measurements and type testing in accordance with the Danish system for approval of wind turbines.
2. This resume is made August 15, 1996 by Vestas Wind Systems A/S
3. The measurements are reported in "Acoustica-report P8.005.94", which is dated June 1994. The measurements are carried out on June 9, 1994.
4. The Windturbine type is: VESTAS V29.225 kW
5. The measurement was performed according to the "Recommendation for wind turbine power curve measurements [Risø-I-745(EN), November 1993]".
6. Results of the measurements:

6a.



The sound power level (L_{Aeq}) can be calculated from the sound pressure level, using the following expression:

$$L_{wa} = L_{Aeq} * 10 * \log\left(4 * \pi * \left(d^2 + h^2\right)\right) - 6\ dB$$

Where, d = distance from the base of the wind turbine to the measurement (d = 56 m).
h = hub height (h = 32 m).

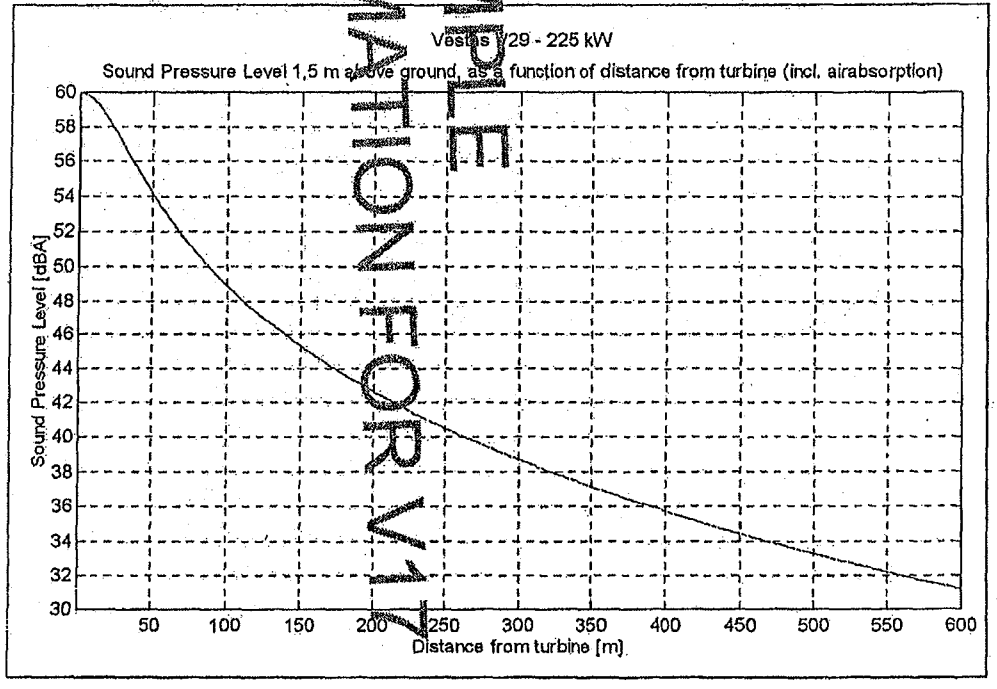
6b. The measurements show the following results at a wind speed of 8 m/s. The measurements are given respectively, as the A-weighted sound pressure level $L_{Aeq,ref}$ and the A-weighted sound power level $L_{WA,ref}$.

Frequency	Sound pressure $L_{Aeq,ref}$ [dB(A)]	Sound Power $L_{WA,ref}$ [dB(A)]
1/1 octave 63 Hz	35.2	76.4
1/1 octave 125 Hz	42.5	83.7
1/1 octave 250 Hz	47.3	88.5
1/1 octave 500 Hz	52,1	93.3
1/1 octave 1 kHz	51.1	92.3
1/1 octave 2 kHz	48.4	89.6
1/1 octave 4 kHz	40.4	81-6
1/1 octave 8 kHz	29.8	71.0
A-weighted, total	56.6	97.8

According to statoturial order no. 304 of May 14, 1991, from the Danish Ministry of the Environment, the degree of accuracy on the results is ±2 dB.

6c. An analysis of the noise in a distance of 56 meter show that the noise from the turbine contains no clearly audible tones or impulses. The analysis has been pre-formed according to guideline no. 6/1984, "Noise from Industrial Plants", from the Danish Ministry of the Environment.

6d.



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Halus Wind Turbine Project – Photo Simulation

Photo Location 1 (asterisk marks turbine location)

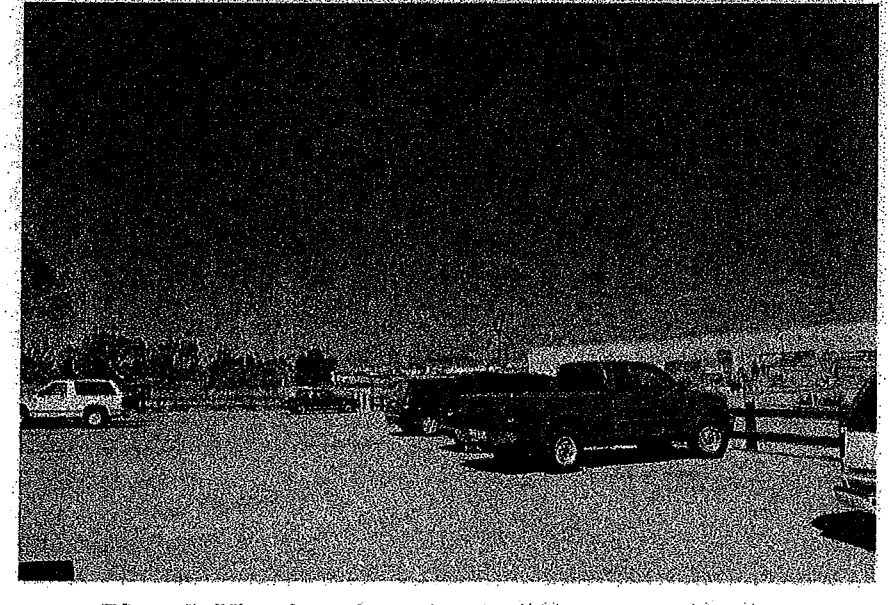

Photo 1: View from Grant Ave Trail Entrance Parking Lot

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Photo Location 2 (asterisk marks turbine location)

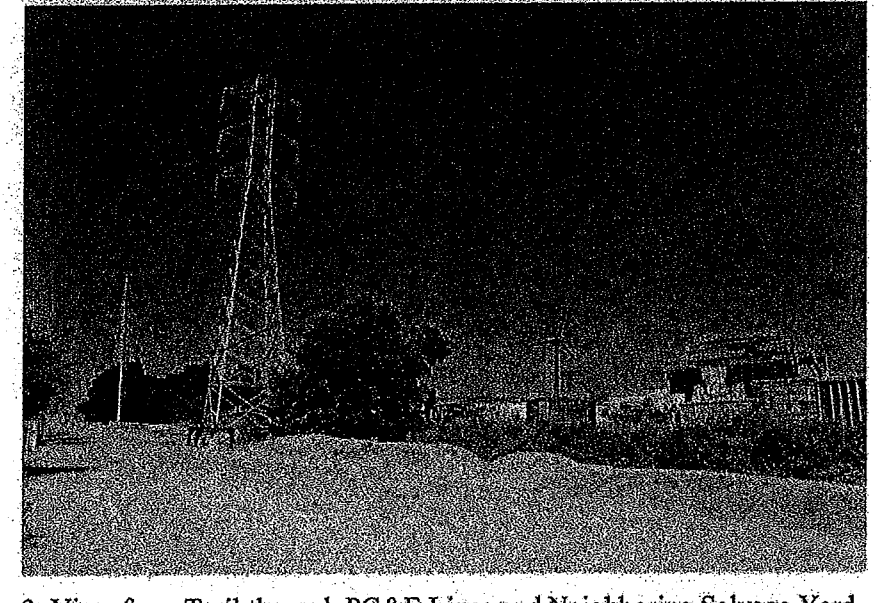

Photo 2: View from Trail through PG&E Lines and Neighboring Salvage Yard

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Photo Location 3 (asterisk marks turbine location)

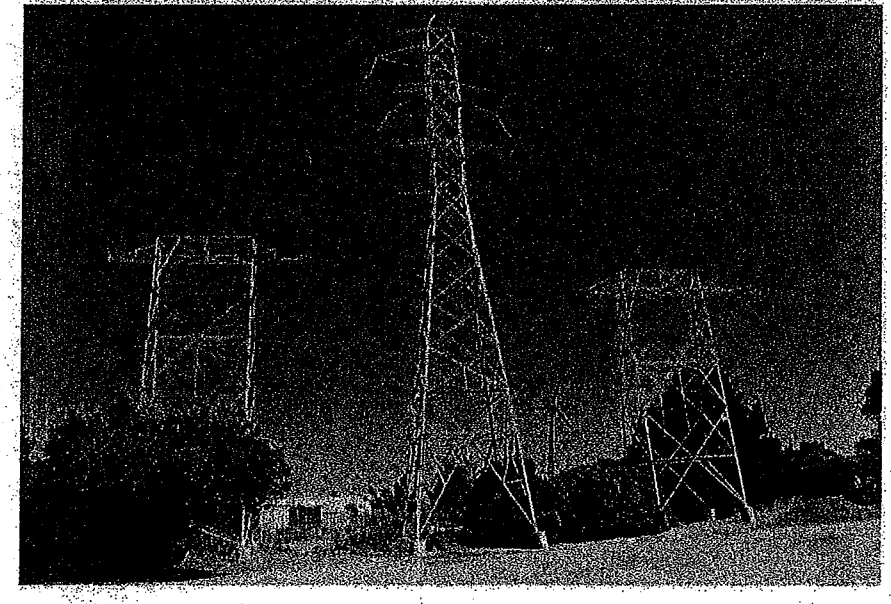

Photo 3: View from Trail through PG&E Lines and Neighboring Salvage Yard

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Photo Location 4 (asterisk marks turbine location)

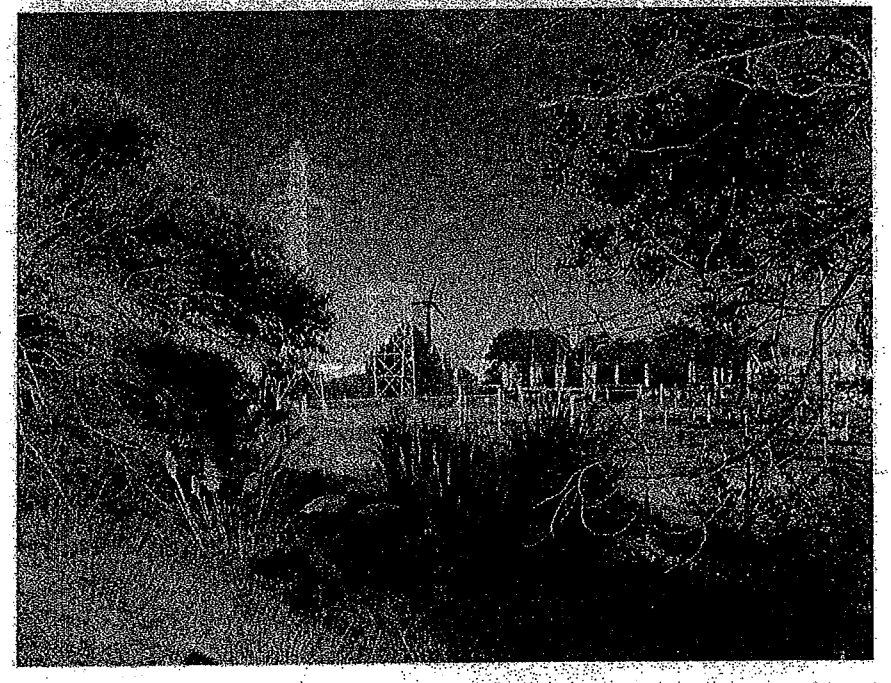

Photo 4: View from Trail and Grant Avenue PG&E Substation (South Side of San Lorenzo Creek/Flood Canal)

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Photo Location 5 (asterisk marks turbine location)

Photo 5: View from Trail (South Side of San Lorenzo Creek/Flood Canal)

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Photo Location 6 (asterisk marks turbine location)

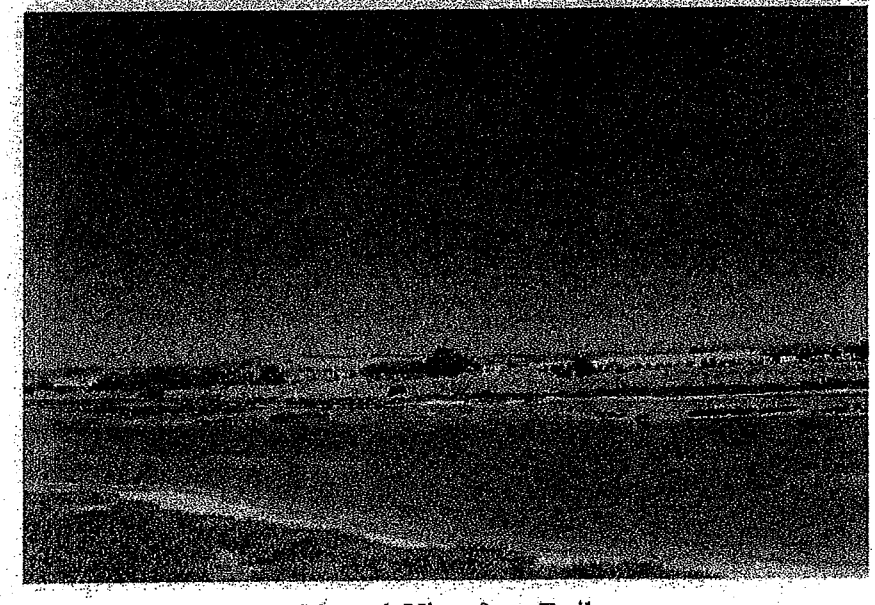

Photo 6: View from Trail

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Photo Location 7 (asterisk marks turbine location)

Photo 7: View from Trail (Halus Property View Blocked by Oro Loma)

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Photo Location 8 (asterisk marks turbine location)

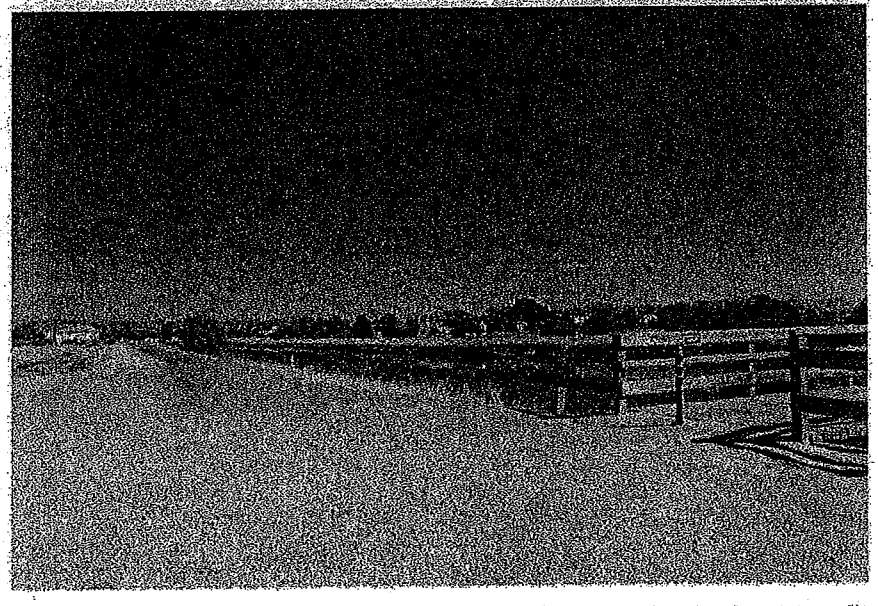

Photo 8: View from Trail (North Side of San Lorenzo Creek/Flood Canal)

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Photo Location 9 (asterisk marks turbine location)

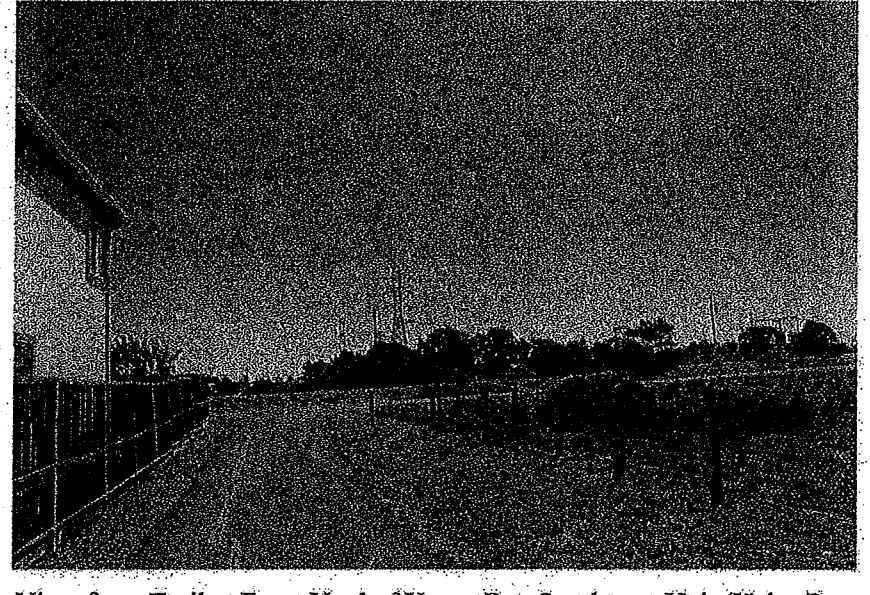

Photo 9: View from Trail at Front Yard of Heron Bay Southwest Unit (Halus Property Not Visible)

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Photo Location 10 (asterisk marks turbine location)

Photo 10: View from Trail Near Backyard of Heron Bay Southwest Corner Unit, North Side of San Lorenzo Creek/Flood Canal

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Photo Location 11 (asterisk marks turbine location)

Photo 11: View from North Side of San Lorenzo Creek/Flood Canal

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ESA Biological Resources

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technical memorandum

date May 10, 2012

to Louis Rigaud, Halus Power Systems

from Chris Rogers

subject Potential Impacts to Avian Species Resulting from Construction of a Single Wind Turbine at Halus Power Systems in San Leandro, CA

Summary

The construction of a single wind turbine at Halus Power Systems in San Leandro, California, poses a low potential risk to birds and bats, and is low relative to other causes of mortality, including habitat loss, nest predation by invasive species (e.g., red foxes, feral cats), and collision with other structures (e.g., buildings, transmission lines). The nearby Roberts Landing Shoreline Marshlands Enhancement area supports resident populations of the federally-endangered California clapper rail (*Rallus longirostrus obsoletus*) and wintering populations of the state-endangered California black rail (*Laterallus jamaicensis coturniculus*), so even a low risk of collision resulting in the loss of one breeding individual could impact the population. The turbine's location create a limited biological risk. If the City of San Leandro issues a Variance for the proposed project, this discretionary action triggers environmental review under the California Environmental Quality Act (CEQA). The level of CEQA review is at the discretion of the City of San Leandro (i.e. Notice of Exemption, Negative Declaration, Mitigated Negative Declaration, etc.).

The following findings are the results of our review of available, comparable and relevant studies of the impacts of single small wind turbines:

1. The construction of a single turbine poses a low risk to birds and bats and is particularly low when compared to other causes of mortality including habitat loss, nest predation by invasive species (e.g. red foxes, feral cats) and collision with other structures (e.g. buildings, transmission lines).

2. The proposed single, small turbine is 80 feet in height with an additional maximum height of 100 feet at the full vertical extension of the blades. The relatively low height along with a relatively slow blade rotation (45 rpm) serves to minimize the risk to birds and bats particularly when compared to the larger, more typical turbines in commercial use today. Specifically, the risk to bats is not likely to be significant given the low height of the proposed turbine.

3. Environmental guidance for small wind projects is lacking at both a federal and state level and no California or San Francisco Bay guidelines for small wind projects have been identified. The

best identified substitute for State Environmental Guidance for Small Wind Projects is the New Jersey Department of Environmental Protection's "Technical Manual for Evaluating Impacts of Wind Turbines Requiring Coastal Permits" which allows small wind projects with a rotor-swept area of less than 2,000 square feet to be constructed without surveys or mitigation. Since the proposed wind turbine will have a rotor swept area of less than 2,000 square feet, no additional surveys or mitigation should be required.

4. While there have been a multitude of studies (e.g. in the Altamont Pass Wind Resource Area and elsewhere) those studies cannot be applied to this project because they a) include multiple wind turbines in close proximity to one another; and/or b) analyze significantly larger turbines with different operating characteristics. Further, the study results are unclear, inconclusive or conflicting making it difficult to assert any definitive causal relationship related to the wind turbines and avian fatalities in a particular location. Specifically, the Altamont study results are not appropriate to this project due to:
    a. Differences in topography and landscape
    b. Differences in types of bird species and their flight characteristics
    c. Turbine height and density

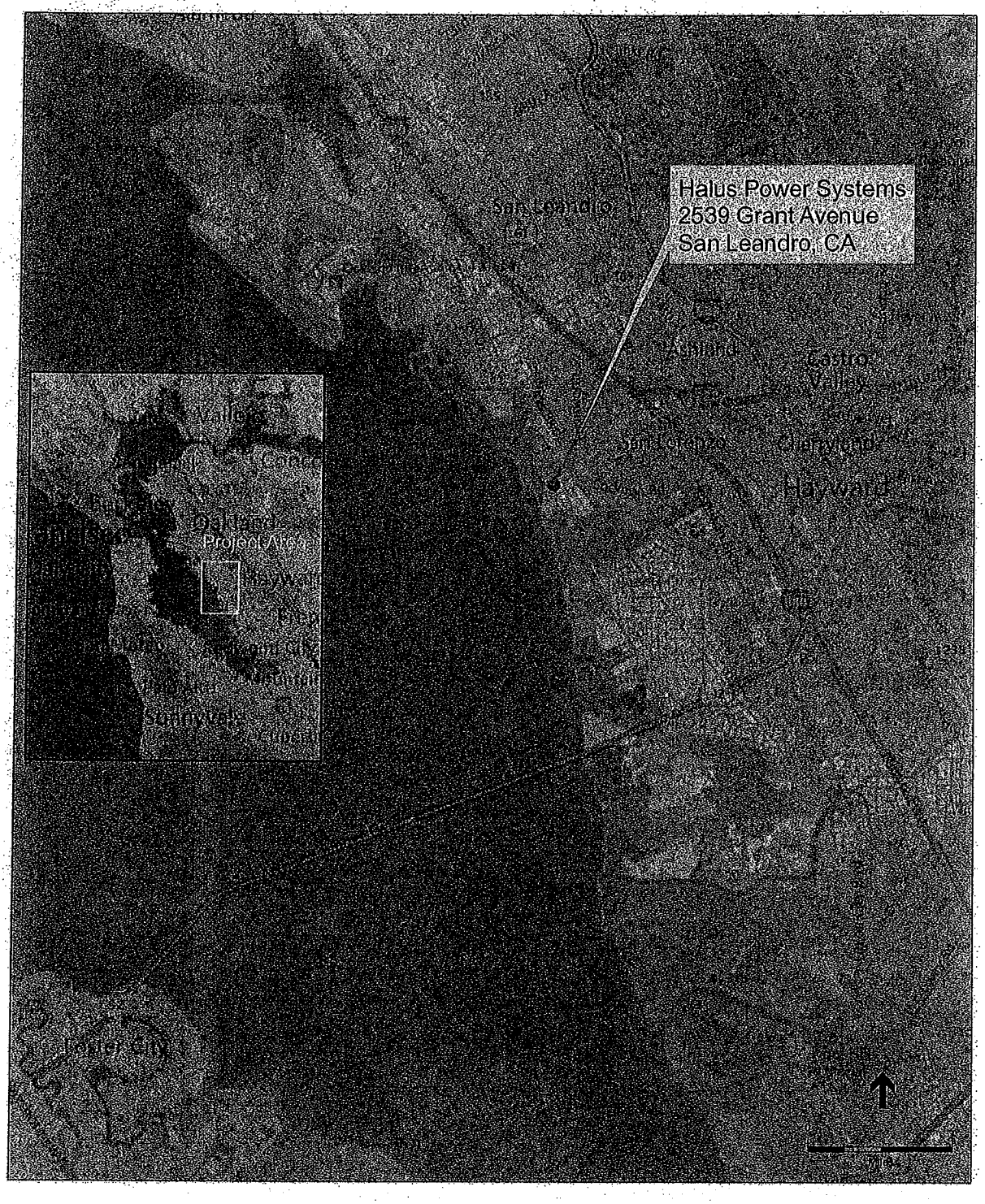
5. The bird species at highest risk in the area in proximity to the proposed project are the local populations of California clapper rails and California black rails. However any risk proposed by the proposed turbine would be greatly reduced due to the distance from the habitat area and rails' ground-dwelling behavior and relatively little time spent in flight. These species are far more likely to be impacted by human activities including pedestrian trails, leashed and unleashed dogs, the adjacent power substation and transmission towers. A small wind turbine is likely to blend in with the "background noise" of existing structures and recreational activities.

6. Bird fatalities are relatively infrequent events at wind farms and therefore a single wind turbine poses little risk. Higher bird fatalities occur when turbines are taller and when the elevation is higher. In this case the turbine is small (100' to the blade tip) and the elevation is only 8.5' above sea level. Study results summarized by Curry and Kerlinger (2007) indicate that the nocturnal migration of waterfowl, shorebirds, and songbirds occurs in most places across broad fronts at altitudes generally greater than 400 feet (122 meters).

7. Based upon the comparison of the proposed project with available data, it is estimated that the small turbine would result in 0.152 bird deaths per year. At that rate, it would take 6.5 years of continuous operation to result in the death of one bird. This would not be a significant biological impact to common bird populations, but could be construed as significant for listed endangered or threatened species.

Project Description

Halus Power Systems, a San Leandro supplier of remanufactured wind turbines, is requesting approval from the City of San Leandro of a Variance to exceed the 60 foot height limit and allow an 80-foot tall (100 feet to the fully extended blade height), single, 50kW wind turbine to be located in the middle of their property located at 2539 Grant Avenue in the I-G Zoning District (see **Figure 1, Project Location**).



SOURCE:Microsoft Virtual Earth

Halus Power Systems. 120282

Figure 1
Project Location

The proposed wind turbine will be used for research and development purposes as part of the company's ongoing efforts to increase operational and energy efficiencies of the turbines it re-manufactures. The energy generated by the turbine will also offset the company's demand for non-renewable energy for their operations. As proposed, the project is a discretionary action by the City, which requires environmental review under the California Environmental Quality Act (CEQA).

Turbine specifications are identified below in **Table 1, Summary of Turbine Specifications**. The turbine would be erected upon a tubular tower, with a maximum blade height of approximately 100 feet and a ground clearance of approximately 51.5 feet. The turbine will achieve full power at 37.6 mph (16.8 m/s), and the turbine has a rotational speed of approximately 44 rpm. The cut-in wind speed is 7.4 mph (3.3 m/s) and the cut-off wind speed is 62 mph (28 m/s). An electronic wind vane allows the turbine to change its orientation relative to the wind.

TABLE 1
SUMMARY OF TURBINE SPECIFICATIONS

Specifications:	Vestas V17-90kW (Refurbished to be 50 kW)
Tubular Tower Height:	73.82 feet (22.5 meters)
Hub Height	76 feet (23.2 meters)
Rotor Diameter:	44 feet (15.0 meters)
Total Height:	100 feet (30.5 meters)
Swept Area:	2,000 square feet (186 square meters)
Tip Ground Clearance:	51.5 feet (15.7meters)
Blades:	3

SOURCE: Halus Power Systems, 2012

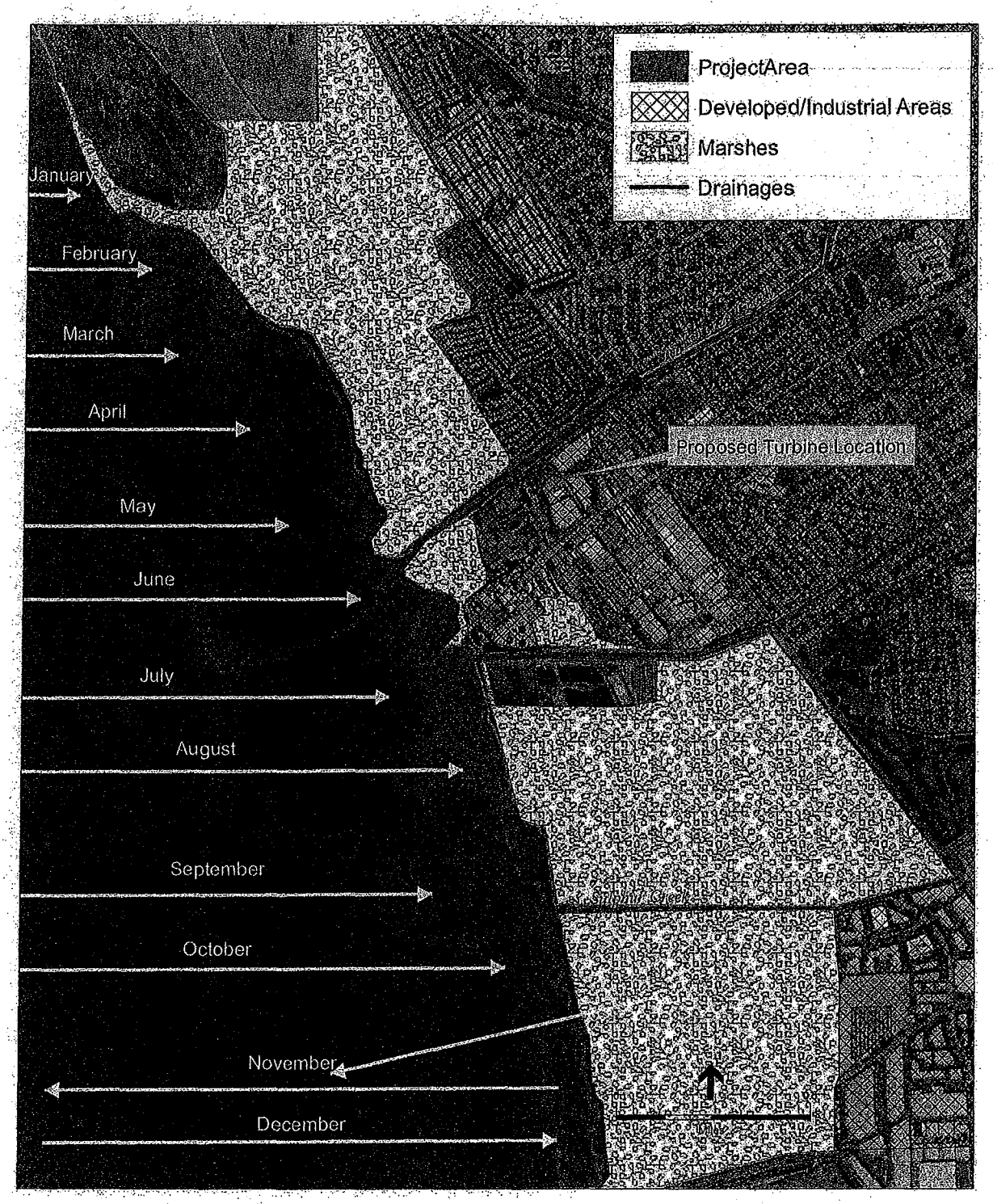
Site Conditions

The proposed project is located within an area zoned as an Industrial General District, bordered by industrial properties to the west and east, and bordered by San Lorenzo Creek and a Residential Single-Family District to the north. To the northwest is open space known as East Marsh, which is a subsection of the City of San Leandro's Roberts Landing Shoreline Marshlands Enhancement area. This area is 600 feet from the proposed turbine location, and is separated from the project site by San Lorenzo Creek and its flood maintenance roads. The project area is bordered by the City of San Lorenzo to the south, and these parcels provide similar industrial land uses. The turbine location is proposed in an open laydown yard behind (north of) the Halus Power Systems building as depicted in **Figure 2, Proposed Turbine Location**. This area provides 4 acres and a minimum of 100 feet of paved and ruderal open ground surrounding the turbine in any direction, and is 200 feet from any permanent structures. Based on aerial photography of the project site, the laydown yard appears to be comprised of ruderal upland vegetation. At this location, the turbine would be 370 feet from San Lorenzo Creek and 600 feet from East Marsh. Prevailing winds originate from the west for eleven months of the year, excepting November when winds originate from the east/northeast, as depicted in **Figure 3, Prevailing Winds in the Marsh/Urban Interface Zone– January through December.**

SOURCE:Microsoft Virtual Earth

Halus Power Systems. 120282

Figure 2
Proposed Turbine Location



SOURCE:Microsoft Virtual Earth

Halus Power Systems, 120282

Figure 3

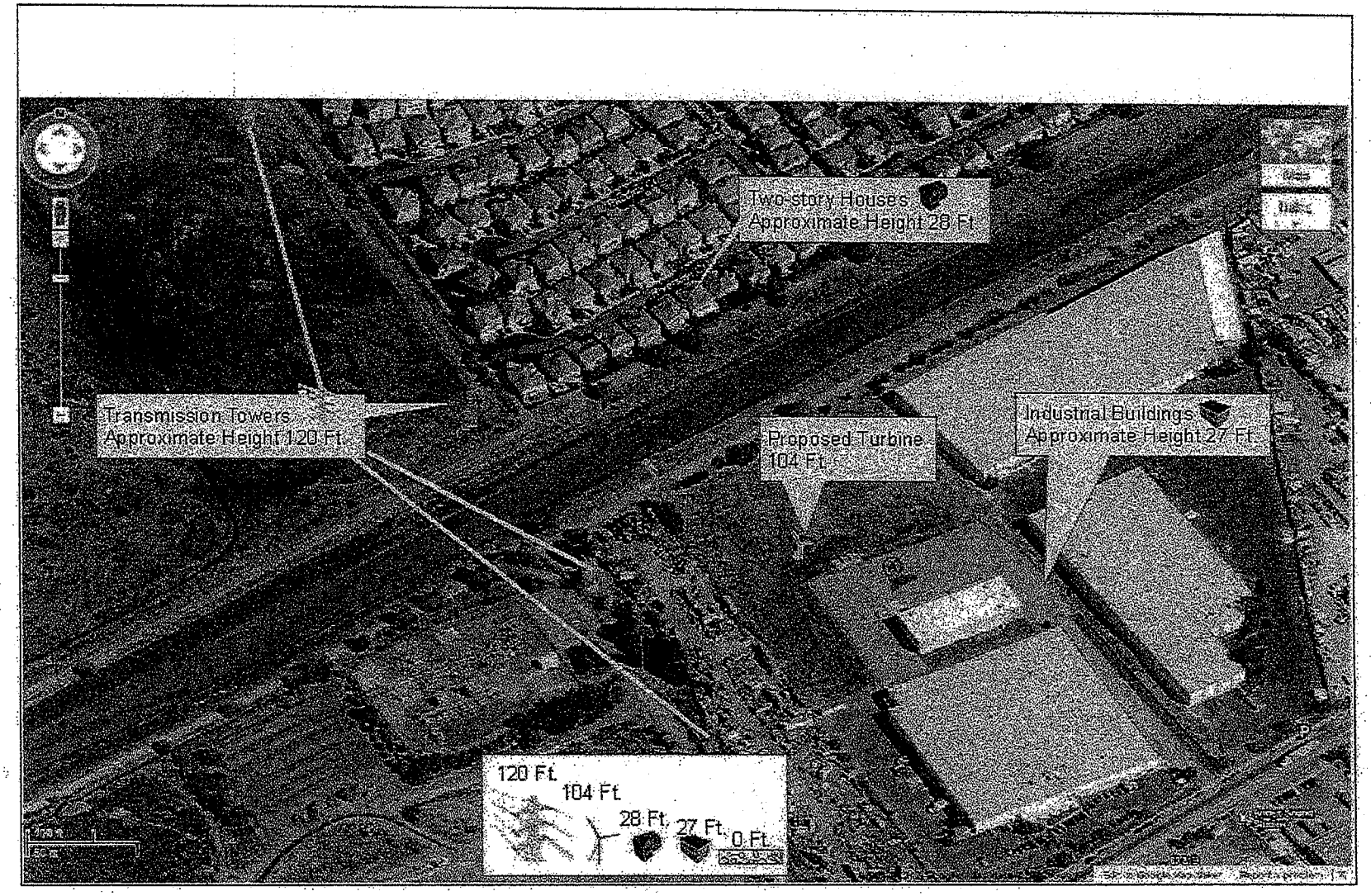
Prevailing Winds in the Marsh/Urban Interface Zone, January through December

Other tall structures in the immediate area include a string of large transmission towers estimated to be approximately 120 feet tall traversing East Marsh and other properties, an adjacent substation with utility poles that are typically 60-70 feet tall, an 80-foot tall cellular antenna tower at the Oro Loma Sanitary District treatment plant, two-story residential houses that are approximately 28 feet tall at the roof peak, and commercial buildings that are approximately 27 feet tall at the perimeter parapet wall, as depicted in **Figure 4, Surrounding Structural Heights in the Project Area.** At 100 feet maximum blade height, the proposed single turbine would be taller than commercial buildings, residential houses and utility poles, but shorter and less numerous than the transmission towers.

Avian Overview of San Francisco Bay

The ability to fly allows avians to be widespread. Their mobility and tendency towards migration means that a wind turbine in one geographic location can affect avians across a much larger geographic swath. Biologists evaluating the impacts of wind turbines must grapple with the problem of "how wide to cast their net" to accurately capture the full suite of species that could be impacted, to then prioritize that list according to some probability of impact. The proposed project is located within the San Francisco Bay shoreline at the marsh/urban interface (see Figure 3). The San Francisco Bay Estuary is renown as a major North American refuge for many species of waterfowl and shorebirds during their migration and wintering (August through April) periods, and it provides breeding habitat during the summer for a few species; the Estuary is recognized as a Western Hemisphere Shorebird Reserve Network site of international importance for more than a million shorebirds in migration and as the winter home for more than fifty percent of diving ducks in the Pacific Flyway (Goals Project, 2000). The San Francisco Bay, its shoreline, and interior margins up to four miles inland, are also recognized bythe Audubon Society and American Bird Conservancy as a California Important Bird Area. The Important Bird Areas Network is an international network that connects local sites to global conservation efforts. The San Francisco Bay Area Wetlands Ecosystem Goals Project's (Goals Project) publication *Bayland Ecosystem Species and Community Profiles* (Goals Project, 2000) was consulted to characterize the importance of San Francisco Bay to avians in general and to identify important resident and migratory species in the area. The California Department of Fish and Game's California Natural Diversity Database (CNDDB) (CDFG, 2012) and the U.S. Fish and Wildlife Service (USFWS, 2012) were consulted to identify threatened and endangered species and California species of special concern. **Table 2, Special-status Resident and Migratory Birds of the San Francisco Bay Estuary** prioritizes avian species of concern by their legal status: (a) listed as threatened or endangered under federal or state endangered species acts; (b) identified by CDFG as a California Species of Special Concern; or (c) identified by the Goals Project as a key wildlife species.

The Goals Project was a cooperative effort among nine state and federal agencies and nearly 100 Bay Area scientists to identify the kinds, amounts, and distribution of habitats needed to sustain healthy populations of fish and wildlife in and around San Francisco Bay, including waterfowl, shorebirds, and other bayland birds. Their publication identified 32 bird species of importance, with common species often being representative of a suite of birds using similar habitats. Four threatened or endangered species were identified in San Francisco Bay: the federally-threatened western snowy plover (*Charadrius alexandrinus*), the federally-endangered and state-endangered California clapper rail, the state-threatened California black rail, and the federally-endangered and state-endangered California least tern (*Sterna antillarum browni*).



SOURCE: Google Maps

Halus Power Systems, 120282

Figure 4

Surrounding Structural Heights in the Project Area

The CNDDB and USFWS also identified the state-threatened bank swallow (*Riparia riparia*). Eleven California Species of Special Concern were identified: tricolored blackbird (*Agelaius tricolor*), tule greater white-fronted goose (*Anser albifrons gambelli*), western burrowing owl (*Athene cunicularia*), short-eared owl (*Asio flammeus*), northern harrier (*Circus cyaneus*), yellow warbler (*Dendroica petechia brewsteri*), saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), song sparrow (*Melospiza melodia samuelis, M.m. pusillula, M. m. maxillaries*), white pelican (*Pelecanus erythrorhynchus*), savannah sparrow (*Passerculus sandwichensis*), and black skimmer (*Rhynchops niger*).

Thirty-two Local Species of Concern (Goals Project focal species) were identified, some with overlapping status as threatened or endangered or a California Species of Special Concern. Those with Local status only are: western grebe (*Aechmophorus occidentalis*), Clark's grebe (*Aechmophorus clarkia*), northern pintail (*Anas acuta*), mallard (*Anas platyrhynchos*), black turnstone (*Arenaria melanocephala*), canvasback (*Aythya valisineria*), red knot (*Calidris canutus*), western sandpiper (*Calidris mauri*), snowy egret (*Egretta thula*), common moorhen (*Gallinula chloropus*), california gull (*Larus californicus*), long-billed dowitcher (*Limnodromus scolopaceus*), marbled godwit (*Limosa fedoa*), surf scoter (*Melanitta perspicillata*), black-crowned night heron (*Nycticorax nycticorax*), ruddy duck (*Oxyura jamaicensis*), brown pelican (*Pelecanus occidentalis*), double-crested cormorant (*Phalacrocorax auritus*), Wilson's phalarope (*Phalaropus tricolor*), caspian tern (*Sterna caspia*), and Forster's tern (*Sterna forsteri*).

East Marsh, located 600 feet northwest of the proposed turbine location, provides habitat for California clapper rails and California black rails. Clapper rails are considered non-migratory residents of San Francisco Bay salt marshes but post-breeding dispersal has been documented from August to November (Goals Project, 2000). Black rails are considered migratory winter residents of the south San Francisco Bay. Migration is commonly believed to occur August through October, probably by juveniles. Their migration pattern in California is unclear and the extent of their winter dispersal is unknown (Goals Project, 2000). Other special-status residents of grasslands, marshes, and salt ponds within 1-2 miles of the project area include Alameda song sparrow, western burrowing owl, northern harrier, and western snowy plover (CDFG, 2012). Because of similarity of habitats to those at Roberts Landing, these species also may use or move through East Marsh and surrounding areas.

The Risk to Birds and Bats

Avians can be directly and indirectly affected by wind turbines. Direct impacts are caused by collisions with turbine blades or tower structures, and usually result in death. In the case of bats, direct impacts result from barotrauma– fatal internal organ damage caused by a drastic change in air pressure near the tips of rotating turbine blades. The risk for collision may be affected by turbine height, rotor diameter, blade rotation speed, avian abundance, species-specific bird flight behavior, avian perception of turbines, seasonal presence, and weather conditions. Unfortunately, there is a shortage of information on bird and bat behavior, migratory bird routes, and the ways in which topography, weather, time of day, and other factors affect bird and bat mortality (National Audubon Society, 2007).

Indirect impacts can range from temporary disturbance resulting from the noise and human presence associated with construction (which can reduce survivability by causing stress, decreased food intake, brood neglect, nest abandonment, etc.), to permanent displacement associated with operation of the new turbine/s. Some ornithologists believe that prey species, such as greater sage-grouse and prairie chickens, are behaviorally programmed to perceive tall structures as a threat, and therefore avoid using habitats where tall structures exist (National Audubon Society, 2007). Clapper rails and black rails, also being prey species with ground-dwelling

habits, may react similarly to wind turbines and other tall structures. Human disturbance from recreational use, utilities maintenance, and high-intensity adjacent uses (*i.e.*, frequent or loud activities outside the norm of their natural habitat) can disturb rails and cause home range abandonment with subsequent nesting failure; proposed use of adjacent land near marshes should, therefore, be carefully evaluated prior to being permitted (Goals Project, 2000).

Small Wind Power Projects

Small wind turbines are an emerging technology and their use is not currently widespread. Thus, policies relating to their implementation and practical experience with their impacts on avians and bats are also lacking. Small wind refers to wind energy systems that are generally less than 100 kW in capacity and produce electrical power for on-site use. These turbines are suitable for use with small businesses, small industrial facilities, family farms, agricultural operations, single homes, cabins, and even sailboats. A distinction is made here between turbines used for business operations versus home use. While the rated capacity may be similar, home-use turbines typically have a rotor diameter of 3-12 feet (1-3 meters), while those used for business/small industrial operations typically have a larger rotor diameter, such as the 44-foot diameter of the proposed Vestas turbine.

Several studies were identified that evaluated the impacts of single turbines, but their applicability in determining risk to birds at the proposed project is limited because those studies evaluated large turbines. At a single 200-foot tower wind turbine in Solano County, California, seven fatalities were documented from September 1982 to January 1983, and the total fatality estimate with adjustments for scavenger removal and searcher efficiency was estimated at 54 birds (Byrne 1983, 1985 *in* Erickson et. al., 2005); a study in Sandusky, Ohio monitored a single, large turbine for avian mortality during four migratory seasons and found two dead birds during this period (Gauthreaux, 1994 *in* Erickson et. al., 2005); two large experimental turbines and a meteorological tower in Wyoming were monitored for avian mortality in the early 1980s, where twenty-five fatalities were found over a one-year period. Most fatalities involved passerines that had collided with guy wires on the meteorological tower (U.S. Bureau of Reclamation 1984 *in* Erickson et. al., 2005).

Recent single turbine projects in or near San Francisco Bay marsh habitat include the construction of a single large wind turbine at the Anheuser-Busch facility and a string of four small turbines at the Fairfield-Suisun Sewer District, both in the City of Fairfield. Slightly beyond the San Francisco Bay but within freshwater marsh avian habitat, the same Vestas turbine as proposed here was constructed at the Rio Viento RV Park and Campground near Rio Vista, California. This turbine, located on Sherman Island in the San Joaquin-Sacramento River Delta, became operational in 2007. The Rio Viento turbine was not subject to environmental review, and no pre- or post-construction monitoring was required (Halus Power Systems, 2012).

The Anheuser-Busch turbine has a 1.5 megawatt rated capacity and is on a 320-foot tower, and became operational in fall 2011. The four turbines at Fairfield-Suisun Sewer District have a total rated capacity of 200 kW. Towers are between 80 and 100 feet tall. These turbines became operational in 2010. Fatality monitoring is not presently required at the Anheuser-Busch facility but remains a potential requirement. One year of post-construction monitoring was required at Fairfield-Suisun Sewer District (City of Fairfield Planning Department, pers. comm., 2012); however, fatality monitoring data is not readily available to the public for this project and was not obtained for review.

TABLE 2
SPECIAL-STATUS RESIDENT AND MIGRATORY BIRDS
OF THE SAN FRANCISCO BAY ESTUARY

Scientific Name Common Name	Listing Status USFWS/ CDFG/ Local	General Habitat	Potential for Species Occurrence in the Project Area or to be Affected by the Project	Residency or Period of Migration
FEDERAL OR STATE THREATENED AND ENDANGERED SPECIES				
Charadrius alexandrinus Western snowy plover	FT/CSC/-- Goals Project focal species	Forage in tidal flats. Nest on salt pond levees and around pond edges.	Interior nesting populations generally migrate to the coast in winter. Salt ponds occur within 2 miles; collision potential when arriving/dispersing.	Resident and migratory. Jul.-Oct. dispersal to the coast; Mar.- Apr. arrival to salt ponds.
Laterallus jamaicensis coturniculus California black rail	--/ST/-- Goals Project focal species	Salt and freshwater marshes.	Seasonally present in adjacent East Marsh. Primarily a ground bird. Collision potential when arriving/dispersing.	Winter resident with Aug.-Oct. dispersal
Rallus longirostris obsoletus California clapper rail	FE/SE/-- Goals Project focal species	Salt marshes.	Present year-round in adjacent East Marsh. Primarily a ground bird. Collision potential when arriving/dispersing.	Year-round resident with Aug.-Nov. dispersal
Riparia riparia Bank swallow	--/ST/--	Rivers, streams, lakes, and ocean coasts.	Migratory and a widely-dispersing species. Breeding colonies within 10 miles in San Mateo and San Francisco counties. Collision potential during migration and dispersal.	Migratory. Mar.-May arrival; Jun.-July dispersal
Sterna antillarum browni California least tern	FE/SE/-- Goals Project focal species	Estuaries, sandy beaches, salt flats with sparse vegetation.	Forage in central and south San Francisco Bay. Present within 3 miles at nearby Hayward Regional Shoreline Park. One of the largest breeding populations occurs at Alameda Point. Collision potential during local and regional movements.	Migratory. Apr. arrival. Aug.-Sept. dispersal.
STATE SPECIES OF SPECIAL CONCERN				
Agelaius tricolor Tricolored blackbird	--/CSC/--/	Freshwater marshes with dense stands of cattails or bulrushes, occasionally in willows, thistles, mustard, blackberry brambles, and dense shrubs and grains.	Nesting populations within 10 miles but greater than 5 miles from project area. Collision potential during migration and dispersal.	Migratory. Spring/summer
Anser albifrons gambelli Tule greater white-fronted goose (representative of geese and swans)	--/CSC/-- Goals Project focal species	Intertidal mudflats and freshwater marshes.	Winter resident of the North Bay. Other represented species are winter residents of the central Bay. Collision potential during local and regional movements.	Migratory. Sept. arrival. Feb. dispersal.
Athene cunicularia Western burrowing owl	--/CSC/-- Goals Project focal species	Flat coastal lowlands and low-growing grasslands with burrowing mammals.	Resident within 1 mile at nearby Hayward Shoreline Regional Park. Collision potential while foraging.	Resident.
Asio flammeus Short-eared owl	--/CSC/--	Salt marshes and freshwater marshes.	Recorded nesting occurrence within 10 miles; suitable habitat at East Marsh. Collision potential while foraging.	Resident and migratory.

Scientific Name Common Name	Listing Status USFWS/ CDFG/ Local	General Habitat	Potential for Species Occurrence in the Project Area or to be Affected by the Project	Residency or Period of Migration
STATE SPECIES OF SPECIAL CONCERN (continued)				
Circus cyaneus Northern harrier	--/CSC/--	Marshlands, tidal flats, fields, and open grasslands.	Recorded nesting occurrence within 10 miles; suitable habitat at East Marsh. Collision potential while foraging.	Resident.
Dendroica petechia brewsteri Yellow warbler	--/CSC/--	Dense riparian vegetation, usually willows, in close proximity to water.	Recorded nesting occurrence within 10 miles. Unlikely to occur in the project area. Collision potential during migration.	Migratory. Breeding resident Mar.- Oct.
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	--/CSC/-- Goals Project focal species	Fresh and brackish marsh associated with Bay wetlands; occurs in salt marsh during the winter.	Recorded nesting occurrence within 10 miles; suitable habitat at East Marsh. Collision potential during local and regional movements.	Resident.
Melospiza melodia samuelis, M.m. pusillula, M. m. maxillaris Song sparrow	--/CSC/-- Goals Project focal species	Tidal salt marshes, seasonal wetlands, intertidal mudflats, adjacent uplands.	Present in East Marsh. Collision potential during local and regional movements.	Resident.
Pelecanus erythrorhynchus White pelican	--/CSC/-- Goals Project focal species	Shallow water, dikes and levees of salt ponds.	Wintering population in Hayward marshes. Collision potential during local and regional movements.	Migratory. Present Jun.- Dec.
Passerculus sandwichensis Savannah sparrow	--/CSC/-- Goals Project focal species	Salt marshes and moist grasslands.	Suitable habitat present at East Marsh. Collision potential during local and regional movements.	Resident.
Rhynchops niger Black skimmer	--/CSC/--	Islands, mud flats.	Nesting population present within 5 miles, in Santa Clara County. Collision potential during local and regional movements.	Resident.
SPECIES OF LOCAL CONCERN -- San Francisco Bay Area Wetlands Ecosystem Goals Project				
Aechmophorus occidentalis Western grebe	Goals Project focal species	Sheltered coves and sloughs, reservoirs.	Large numbers occur in Richardson's Bay and other areas where boaters are restricted. Collision potential during local and regional movements.	Non-breeding resident (does not breed in the Bay).
Aechmophorus clarkii Clark'sgrebe	Goals Project focal species	Sheltered coves and sloughs, reservoirs.	Large numbers occur in Richardson's Bay and other areas where boaters are restricted. Collision potential during local and regional movements.	Non-breeding resident (does not breed in the Bay).
Anas acuta Northern pintail (representative of ducks using similar habitats)	Goals Project focal species	Bays, mudflats, salt ponds, diked fresh and estuarine wetlands.	San Francisco Bay is an important wintering area. Collision potential during local and regional movements.	Resident and migratory. Breed and winter in San Francisco Bay.
Anas platyrhynchos Mallard (representative of dabbling ducks)	Goals Project focal species	Marshes, lagoons, baylands, managed wetlands, salt ponds.	San Francisco Bay is an important wintering area. Collision potential during local and regional movements.	Resident and migratory. Breed and winter in San Francisco Bay.
Arenaria melanocephala Black turnstone (representative of shorebirds using rocky shores)	Goals Project focal species	Rocky, unvegetated shores, intertidal mudflats, sandflats, beaches.	Not abundant in the San Francisco Bay. Collision potential during local and regional movements.	Migratory. Non-breeding winter resident.

Scientific Name Common Name	Listing Status USFWS/ CDFG/ Local	General Habitat	Potential for Species Occurrence in the Project Area or to be Affected by the Project	Residency or Period of Migration
SPECIES OF LOCAL CONCERN – San Francisco Bay Area Wetlands Ecosystem Goals Project (continued)				
Aythya valisineria Canvasback (representative of species using similar habitats)	Goals Project focal species	Estuarine and lacustrine low-salinity shallow-water habitats; intertidal mudflats.	South Bay salt ponds are used by thousands of birds. Collision potential during local and regional movements.	Migratory. Winter resident. Sept.-Nov. arrival; Feb.-Apr. departure.
Calidris canutus Red knot (representative of dowitchers, dunlins, and some plovers)	Goals Project focal species	Tidal flats, salt ponds.	Uncommon in the San Francisco Bay. Hayward salt ponds are important roosting habitat. Collision potential during local and regional movements.	Migratory.
Calidris mauri Western sandpiper	Goals Project focal species	Tidal flats, salt ponds, managed wetlands, seasonal wetlands.	Hundreds of thousands of birds may concentrate in San Francisco Bay during migrations. Collision potential during local and regional movements.	Migratory. Jun.-Oct. arrival; Apr.-May departure.
Egretta thula Snowy egret	Goals Project focal species	Marshes, mudflats, beaches.	This species has recovered to its carrying capacity in San Francisco Bay. Suitable habitat at East Marsh. Collision potential during local movements.	Resident.
Gallinula chloropus Common moorhen	Goals Project focal species	Salt marshes, brackish marshes, lakes, streams.	Common throughout the San Francisco Bay. Collision potential during local movements.	Resident.
Larus californicus California gull (representative of other gulls, terns)	Goals Project focal species	Salt ponds, salt pond levees, landfills.	Hundreds of birds breed in Alameda County at the Naval Air Station. Collision potential during local and regional movements.	Migratory. Breeding resident.
Limnodromus scolopaceus Long-billed dowitcher	Goals Project focal species	Fresh and brackish water wetlands, occasionally in salt marsh.	San Francisco Bay supports tens of thousands of wintering birds. Collision potential during local and regional movements.	Migratory. Mar.-May arrival. Jun.-Oct. dispersal.
Limosa fedoa Marbled godwit (representative of all large shorebird species)	Goals Project focal species	Tidal flats, sandy beaches, salt marshes, seasonal wetlands, salt ponds.	San Francisco Bay supports the second largest wintering concentration in the world, at 15,000-20,000 birds. Collision potential during local and regional movements.	Migratory. Winter resident. Jul.-Oct. arrival. Mar.-May departure.
Melanitta perspicillata Surf scoter (representative of sea ducks that use deeper, open water habitat)	Goals Project focal species	Open waters, marine and estuarine habitats, tidal wetlands.	San Francisco Bay is the most important inshore habitat in the eastern Pacific. Collision potential during local and regional movements.	Migratory. Winter resident, present from Oct.-May.
Nycticorax nycticorax Black-crowned night heron	Goals Project focal species	Brackish and salt marshes, margins of lakes and streams.	This species has recovered to stable populations in San Francisco Bay. Suitable habitat at East Marsh. Collision potential during local movements.	Resident.
Oxyura jamaicensis Ruddy duck	Goals Project focal species	Salt ponds, open wetlands, shallow lagoons, estuaries.	About 85% of the North American population winters in San Francisco Bay, crucial to wintering populations. Collision potential during local and regional movements.	Migratory. Winter resident. Sept.-Dec. arrival. Feb.-Apr. departure.
Pelecanus occidentalis Brown pelican	Goals Project focal species	All deeper waters of the Bay, including salt ponds and creek mouths.	Recently de-listed as a federal endangered species. Uncommon in San Francisco Bay. Several hundred may be present each summer and fall. Collision potential during local and regional movements.	Migratory, non-breeding. Present in summer, fall, and winter.

Scientific Name Common Name	Listing Status USFWS/ CDFG/ Local	General Habitat	Potential for Species Occurrence in the Project Area or to be Affected by the Project	Residency or Period of Migration
SPECIES OF LOCAL CONCERN — San Francisco Bay Area Wetlands Ecosystem Goals Project (continued)				
Phalacrocorax auritus Double-crested cormorant	Goals Project focal species	Inland bodies of fresh, brackish, and saline water.	Widespread in San Francisco Bay; around 10,000 individuals. Collision potential during local and regional movements.	Resident.
Phalaropus tricolor Wilson's phalarope (representative of shorebirds using salt ponds)	Goals Project focal species	Salt ponds, levees and islands, mudflats.	The South Bay is the area of greatest important to the species. Peak numbers occur in July, up to 40,000 birds. Collision potential during local and regional movements.	Migratory.
Sterna caspia Caspian tern	Goals Project focal species	Open ocean and bay, salt ponds, marshes, freshwater ponds, rivers, reservoirs.	Approximately 1,450 nesting pairs reside in San Francisco Bay. Nesting occurs at Hayward Shoreline Regional Park. Collision potential during local and regional movements.	Migratory. Breeds locally. Aug. dispersal.
Sterna forsteri Forster's tern	Goals Project focal species	Open water, salt ponds marshes, estuarine habitats.	Approximately 2,000 birds in San Francisco Bay. Breeding colonies occur in the south bay. Collision potential during local and regional movements.	Migratory. Breeds locally. Migrants and local breeders present Apr.-Nov.

Source: Goals Project, 2000; CDFG, 2012

Vestas turbines were among the first generation of wind turbines installed in the Altamont Pass Wind Resource Area in California, and, along with all older-generation turbines, are blamed for a high proportion of avian deaths in that area (California Energy Commission, 2009; Smallwood, 2010). Nonetheless, the Altamont experience may not apply to the proposed project area and numerous studies have found that bird abundance and flight behavior, rather than turbine characteristics, are more predictive of collision risk, as discussed below.

Impact Studies at Large Wind Farm Projects

There is a clear difference between large wind farms and single tower installations. Wind farm impacts are probably density –dependent , both the density of turbines and the density of resident and migratory birds. However, most applicable research has been conducted at large facilities and the literature should be noted even for a small project such as the one proposed. Studies have wrestled with identifying causes and effects of avian mortality against a heterogeneous background of turbine type; turbines going in and out of operation; repowering; variable turbine power-output; changing weather and seasons; varied land uses, and very limited information about avian populations, migration patterns, and fluctuating prey densities.. As a consequence, study results are often unclear, and sometimes inconclusive or conflicting, making it difficult to identify causes of, implement effective strategies for, and above all extrapolate to small wind projects. (ESA, 2011).

Reports reviewed for this assessment include Smallwood's (2010) comparisons of the effects of relative turbine sizes; among other factors, Smallwood's (2010b) observation the old-generation turbines kill more birds per unit of energy generated than repowered wind farms, and Smallwood and Thelander's (2004) finding that configuration of multiple towers or strings of towers affects mortality, all are suggestive that multiple tower sites with older generations of turbines are a qualitatively and quantitatively different than single-tower facilities.

Other sources reviewed included Curry and Kerlinger (2001), Barclay et. al. (2007), (de Lucas et al., 2008), Hötker et al. (2006), and Moorehead and Epstein, 1985 *in* Curry and Kerlinger, (2007). All or most of these found various types of impacts and different contributing causative factors when studying collisions at wind farms and were evaluated for the discussion which follows.

Implications for Proposed Project Risk

The applicability of these studies, especially Smallwood's (2010) at Altamont, to the proposed project is questionable due to differences in topography, the suite of bird species and their flight characteristics, landscape, and turbine density. Red-tailed hawk, American kestrel, barn owl, burrowing owl, and golden eagle comprise the majority of raptor fatalities in the Altamont. While these species are likely to be at least seasonally present in the project region, their populations are probably lower in the project region than in the Altamont, the topography is very different, and it should not be assumed these species will be disproportionately at risk from the proposed project. Alternately, based on observed correlations between local bird presence/abundance and collision risk in the Altamont, the local populations of California clapper rails and California black rails may be at greatest risk for collision with the proposed turbine. From a behavioral standpoint, this risk would seem to be greatly reduced due to the rails' ground-dwelling behavior and relatively little time spent in flight, though the risk would increase during seasonal migrations and dispersals. Study results summarized by Curry and Kerlinger (2007) indicate that the nocturnal migration of waterfowl, shorebirds, and songbirds occurs in most places across broad fronts at altitudes generally greater than 400 feet (122 meters), but some songbirds have been recorded flying below this height. Due to the relatively short tower height, the collision or barotrauma risk to bats resulting from the proposed project is not likely to be significant.

Regarding indirect impacts, some types of birds are disturbed and displaced more by wind turbine construction and operation than others. According to Curry and Kerlinger (2007), disturbance and displacement effects have been documented in grassland and prairie birds and in some waterfowl. Some European studies have demonstrated displacement of shorebirds. Resident raptors may be displaced by construction activities during the nesting season, but habituate to turbines after the construction phase. As previously noted, rails can be easily disturbed by human activities. Pedestrian trails around East Marsh are already subject to heavy recreational use including leashed and unleashed dogs, an adjacent power substation, and transmission towers (Dvorak, pers. observation); it is also worth noting that the tower would not actually be in the marsh but 600 feet away, which means that marsh birds would be in danger only if driven into the airspace while escaping a predator or other threat. East Marsh is also bordered by residential neighborhoods and industrial facilities. According to survey results of the clapper rail population in Hayward over a five-year period from 2005-2009, the population declined significantly the last two years (Spartina Project, 2009); however, it is unknown whether the survey period was sufficient to characterize a population trend. A small business/industrial-sized wind turbine in the area may blend in with the "background noise" of existing structures and recreation, or may be considered as contributing to a cumulative adverse effect on local rail population.

Despite the Altamont experience, fatalities are relatively infrequent events at wind farms (Curry and Kerlinger, 2007). In a recent review of the literature on U.S. wind farms, mortality estimates were similar among projects, averaging 2.51 birds per turbine per year and 3.19 birds per MW per year. A second, similar estimate for the average collision risk of all turbines in North America combined is 3.04 deaths per year per megawatt and 2.11 fatalities per turbine. Based on these figures applied to the project's 50 kW output, a low-end mortality estimate would be 0.152 deaths per year resulting from the proposed turbine. Thus, the turbine would have to operate for 6.5 years to result in one bird death. On a per-turbine basis, the high-end annual fatality average would be four birds per year. For common species, this level of fatality would not impact the species at a level of biological significance (a population level). However, the loss of four breeding adults annually from a population of threatened or endangered species could significantly impact the population. This risk should be considered in concert with other environmental risks to the population, including habitat loss, predation, and collision with other structures. Erickson et. al. (2001) found that buildings and windows kill between 98 million and 980 million birds annually, power lines kill up to 174 million birds annually, vehicles kill up to 80 million birds annually, and communication towers kill up to 50 million birds annually. By comparison, wind generation facilities kill up to 40,000 birds annually, or just a fraction of one percent. Erickson's research appears to be well accepted and perceived as scientifically valid. In this light, the scale of impact in context suggest that they would be less than significant, especially if certain mitigations are applied (see below).

Comparative Environmental Guidance for Small Wind Projects

Environmental guidance for small wind projects appears to be lacking at both a federal and state level. While the USFWS *Final Land Based Wind Energy Guidelines* (2012) were expected to include guidance for small scale and individual turbines, this recently-released document limited small wind guidance to a suggestion that small wind projects follow the same basic logic and tiered review process for utility-scale projects. No California or San Francisco Bay guidelines for small wind projects were identified. The best identified corollary or substitute for state guidelines is from the New Jersey Department of Environmental Protection, which issued *A Technical Manual for Evaluating Impacts of Wind Turbines Requiring Coastal Permits* to guide turbine siting on land and water in coastal areas; their tiered approach allows small wind projects with a rotor-swept area of less than 2,000 square feet to be constructed without surveys or mitigation but requires one year of post-construction monitoring

for small wind projects with a rotor-swept area between 2,000 and 4,000 square feet (this project would be less than 2,000 square feet). Projects with larger swept areas are subject to pre-construction avian use and abundance surveys, post-construction fatality monitoring, and other mitigations.

In Europe and Canada, where there is a higher prevalence of small wind (single turbine) and community wind (1-3 turbines) projects, coastal wetlands are usually regulated where other areas are not, and some provinces have established upfront regional thresholds for wind energy development at which small individual wind projects would begin to cumulatively resemble large wind farms. Canada's *Birds and Bird Habitat: Guidelines for Wind Power Projects* establishes the significance criteria for small and large wind project impacts as 14 birds/ turbine/ year at individual turbines or turbine groups; 0.2 raptors/ turbine/ year (all raptors) across a wind power project; 0.1 raptors/ turbine/ year (provincially tracked raptors) across a wind power project; or 2 raptors/wind power project (<10 turbines). These rates are greater than those predicted for the proposed project.

Local Examples

As previously noted, small wind or single-turbine projects in the San Francisco Bay area include the Anheuser-Busch turbine and the Fairfield-Suisun Sewer District four-turbine string. No pre-construction surveys were conducted for these projects. No environmental review was required for the Rio Viento RV Park and Campground turbine on Sherman Island. Post-construction fatality monitoring was required for one year at Fairfield-Suisun Sewer District, and post-construction fatality monitoring is a potential requirement for Anheuser-Busch. Both projects were reviewed under CEQA at the level of an Initial Study/Mitigated Negative Declaration (IS/MND). The proposed turbine differs from these examples, but the level of CEQA review, if any, for such a facility is determined by the lead agency according to its own discretion.

Recommendations

The turbine would be constructed in a heavily developed area that is largely industrial, the turbine is relatively small, the threatened and endangered bird species are ground-dwelling marsh residents with minimal-flight characteristics that greatly reduce their risk for collision, the biological risk appears to be low overall and low relative to other causes of collision mortality. The biological risk could be lower than habitat loss caused by global warming related to continued use of oil-dependent energy, and project approval need not wait for upfront resolution of future landscape-level concerns related to the density of small wind projects in the San Francisco Bay marsh-urban interface.

Should mitigation be deemed necessary by the lead agency, effective measures that could avoid or reduce potential impacts on birds could include weather-dependent shutdowns for brief periods during dense fog or heavy rain in an effort to offset the heightened collision risk to birds caused by inclement weather. If such shut-downs are infeasible, Halus Power Systems could make a financial contribution to continued *Invasive Spartina Project* operations to improve habitat for rail populations in the adjoining marsh.

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ESA

Technical Memorandum

TO: Louis Rigaud,
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2539 Grant Avenue
San Leandro, CA

FROM: Charles Bennett
Environmental Science Associates
550 Kearny Street, Suite 800
San Francisco, CA 94108

DATE: September 20, 2012 (Rev. October 9, 2012)

SUBJECT: **Evaluation of Potential Shadows**
Proposed Vestas Wind Turbine,
San Leandro, California
ESA 120160

Initial Study Checklist
Halus Power Systems Wind Turbine
Attachment 8

Summary

Introduction

ESA conducted a thorough analysis of potential shadow due to construction of a proposed Vestas Wind Turbine Generator (WTG) to be located at 2539 Grant Avenue, San Leandro, on the homes and residents to the north and northwest of the site. To accomplish this, ESA

- Modeled the outlines and topography of the site, the adjacent San Lorenzo Creek channel and its flood maintenance roads, the existing residential development that flanks the maintenance road north of the channel; and the physical characteristics of the WTG.
- Conducted a series of shadow simulations to identify those times of day and times of year when shadow from the project would approach or reach the residences,
- From a review of the shadow simulations and detailed analysis of potential shadows, determined whether shadow from the proposed WTG could reach the residences during the interval from one hour after sunrise to one hour before sunset on any day of the year.

Conclusion

The study determined that the proposed project would cast no shadows on the residences from one hour after sunrise to one hour before sunset throughout the year. In winter, as illustrated by the winter solstice case, shadow from the project (WTG) tower and hub would reach toward the southwestern corner of the residential development in the morning, but only as far as the channel of San Lorenzo

Creek. Furthermore, even considering the shadow from the highest position for the rotor blades, that shadow would not reach the residences during that time interval.

Project and Site

Project Description

Halus Power Systems, a San Leandro supplier of remanufactured wind turbines, is requesting approval from the City of San Leandro of approval of an 80-foot tall, single, 50kW wind turbine to be located in the middle of their property located at 2539 Grant Avenue.

The proposed wind turbine would be used for research and development purposes as part of the company's ongoing efforts to increase operational and energy efficiencies of the turbines it re-manufactures. The energy generated by the turbine would also offset the company's demand for non-renewable energy for their operations. As proposed, the project is a discretionary action by the City, which requires environmental review under the California Environmental Quality Act (CEQA).

Turbine specifications are identified below in Table 1, Summary of Turbine Specifications. The turbine would be erected upon a tubular tower, with a maximum blade height of approximately 100 feet and a ground clearance of approximately 51.5 feet. The target wind speed to achieve efficient power generation is 37.6 mph (16.8 m/s), and the turbine has a rotational speed of approximately 44 rpm. The cut-in wind speed is 7.4 mph (3.3 m/s) and the cut-off wind speed is 62 mph (28 m/s). An electronic wind vane allows the turbine to change its orientation relative to the wind.

TABLE 1
SUMMARY OF TURBINE SPECIFICATIONS

Specifications:	Vestas V17-90kW (Refurbished to be 50 kW)
Tubular Tower Height:	73.82 feet (22.5 meters)
Hub Height	76 feet (23.2 meters)
Rotor Diameter:	44 feet (15.0 meters)
Total Height:	100 feet (30.5 meters)
Swept Area:	2,000 square feet (186 square meters)
Tip Ground Clearance:	51.5 feet (15.7meters)
Blades:	3

SOURCE: Halus Power Systems, 2012

The digital model simplifies the geometry of the WTG, making the tower a column 6 ft. in diameter for its full height plus the height of the hub. This exaggerates the shadows cast by the real WTG. A plan view image of the digital model is shown in Figure 1 of the attached figures. Illustrations of shadows in the Figures that follow it are based on the project and existing building and topographic elements in this plan view.

Site Conditions

The proposed project is located within an area zoned as an Industrial General District, bordered by industrial properties to the west and east, and bordered by San Lorenzo Creek and a Residential Single-Family District to the north. To the northwest is open space known as East Marsh, which is a subsection of the City's Roberts Landing Shoreline Marshlands Enhancement area. This area is 600

feet from the proposed turbine location, and is separated from the project site by San Lorenzo Creek and its flood maintenance roads. The project area is bordered by the City of San Lorenzo to the south, and these parcels provide similar industrial land uses. The turbine location is proposed in an open laydown yard behind (north of) the Halus Power Systems building. This area provides 4 acres and a minimum of 100 feet of paved and open ground surrounding the turbine in any direction, and is 200 feet from any permanent structures.

Methodology and Shadow Calculations

Characteristics of Shadows from WTGs

Unlike the shadow from a new industrial building of a comparable height, the shadow from the proposed WTG would be very slender, since each element of the WTG is itself slender. The tubular tower is roughly 6 ft in diameter at the base and 3 ft in diameter at the top; the hub is about 4 ft in diameter; and the three rotor blades are less than 2 ft wide at the base and less than a foot at the tip.

For any tall structure, the edge of the structure's shadow on the ground blurs with distance – the greater the distance the shadow travels, the more the edge of the shadow blurs – primarily because the sun is a disk, and not a point source of light.

If the sun were a point source, the full shadow from each object would simply spread uniformly as distance increases; however, the sun is a disk, and is sufficiently large that it instead creates a full shadow region (an "umbra") that narrows with distance from the object. The blurred outer region of partial shadow is called the penumbra. For very slender objects, it is quite easy to be far enough away that the disk of the sun appears to surround the object. At such a distance, the full shadow cast by the object is not visible, rather what can be observed is a partial shadow, a decrease in the intensity of the sunlight. Examples include wires and cables on telephone poles, the metal lattice of the tall towers that carry high-voltage power lines, and of course, the many large communications towers on hilltops surrounding the Bay. For each example, if the observer is close enough, a full shadow, or umbra, can be seen, but at a given distance, the full shadow disappears, leaving only an indistinct partial shadow that continues to diminish at greater distances.

The sun's disk has an apparent size of approximately 32 minutes (0.53 degrees) of arc. As a direct result, for any slender object that is 1 foot across:

- at a distance of 108 ft., that object would appear the same width as the sun's disk; and,
- at a distance of 216 ft., the object would appear to be half the width of the sun's disk.

This shadow characteristic can be generalized into a rule of thumb – that the full shadow is gone at a distance of approximately 125 to 200 times the smaller dimension of the slender object, such as cable, telephone pole, tower or rotor blade. As a result, the full shadows from most of the component parts of the WTG, because most have a characteristic narrow dimension of 2 ft or less, will be not be distinct at distances of more than 250 ft to 400 ft. Some elements, such as the base of the tubular tower and the hub (nacelle) with a characteristic narrow dimension of 5 ft., will cast shadows that are more visible at

those distances, However, only the nacelle would be high enough off the ground to cast a sensible shadow as far as the edge of the Halus property.

Therefore, although the computer program uses the digital model to calculate and draw shadow outlines at locations far in excess of these distances, it is important to recognize that the sharply defined shadows shown in the attached figures do not accurately portray the diffuse shadows that actually occur and that, in fact, may or may not be seen on the ground at these distances.

Times of Day for Shadows

Every day of the year, the shadows from objects are extremely long as the sun is rising, quickly shorten and then move generally eastward as the sun rises to its peak at mid-day; shadows then lengthen as they continue their eastward motion, becoming extremely long just as the sun is setting. However, over the year, it is the mid-day shadows that change the most in length – ranging from being longest on the winter solstice to being shortest on the summer solstice.

For gardeners, workers or for those at home during the day, the availability of sunlight and the new shadows of most concern are typically those that occur between mid-morning through mid-afternoon. A much more conservative shadow metric, which is applied in San Francisco for shadows on public parks, is to consider all shadow that occurs during the hours between one hour after sunrise and one hour before sunset, throughout the year. At an hour after sunrise or before sunset, the sun is very low in the sky, typically only 9° to 10° above the horizon, which means that shadows cast by objects will be approximately 6 times as long as the height of the objects.

Using this most stringent shadow criterion for assessing possible shadow effect, this analysis considered the range of shadows that could occur over the course of the year, from the first hour after sunrise to one hour before sunset. To summarize the characteristics of the year-round shadow:

- The trace during the day on the winter solstice marks the northern-most extent of shadow.
- The first shadows on the winter solstice, the equinox and the summer solstice mark the western-most extent of shadow.
- The last shadows on the winter solstice, the equinox and the summer solstice mark the eastern-most extent of shadow.
- The trace during the day on the summer solstice marks the southern-most extent of shadow.

Digital Model and Shadow Projections

A digital scale model of the site and vicinity was constructed to show the outlines and topography of the site, adjacent buildings, as well as the adjacent San Lorenzo Creek channel and its flood maintenance roads, the existing residential development that flanks the maintenance road north of the channel; and the physical characteristics of the WTG. This model was used to cast shadows on three select days of the year:

- winter solstice (December 20th), when days are shortest and mid-day shadows the longest;

- equinox (March 20th or September 20th), when day and night are of equal length; and,
- summer solstice (June 20th), when days are longest and mid-day shadows the shortest;
    - The resulting traces of the shadow show the full range of motion for all shadows from the proposed Vestas WTG over the full year.

To illustrate the full extent of shadow motion, the images shown in the attached figures include:

- seven times of day, from 8:30 AM to 3:30 PM, on the winter solstice, when mid-day shadows reach their farthest northward reach;
- three times of day, 7:30 AM, Noon and 5:30 PM, on the vernal equinox, when the trace of shadows over the course of a day runs generally from west to east; and,
- three times of day, 7:00 AM, Noon and 5:30 PM (Pacific Daylight Time), on the summer solstice, when morning shadows begin to the west-southwest, mid-day shadows are shortest of any time of year, and evening shadows end to the east-southeast.

Conclusions

Using the most stringent criterion for possible shadow effect, the study determined that the proposed project would cast no shadows on the residences from one hour after sunrise to one hour before sunset throughout the year.

In winter, as illustrated by the winter solstice case, Figure 2, shadow from the project (WTG) tower and hub would reach toward the southwestern corner of the residential development in the morning, but only each as far as the channel of San Lorenzo Creek.

Furthermore, even considering the shadow from the highest position for the rotor blades, that shadow would not reach the residences during that time interval.

Finally, although sharply defined shadows are projected here for first and last hours of the day, they overstate the real shadow effect of the WTG and do not accurately portray the diffuse shadows that actually may or may not be seen on the ground.

ESA

Figures

Halus Vestas WTG
Scale 1" = 200 ft.

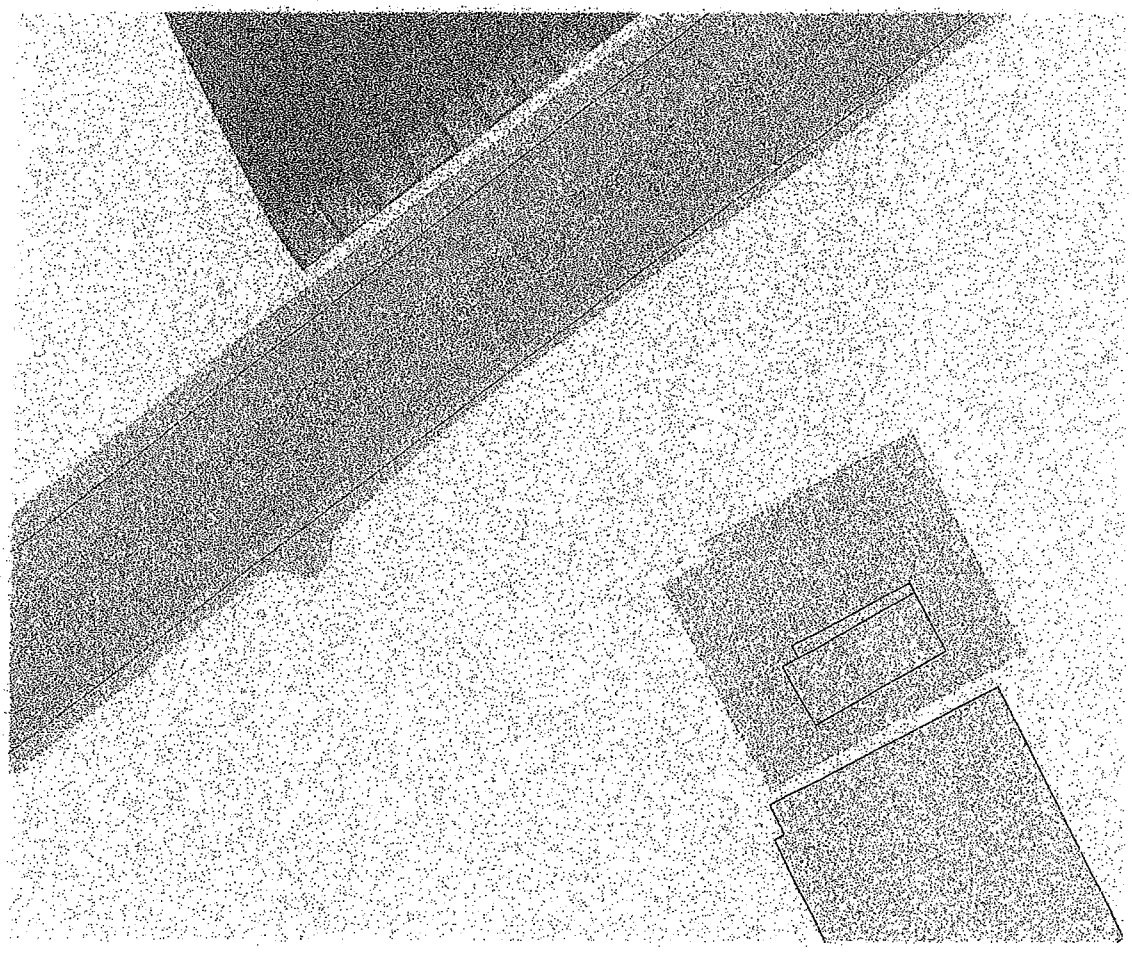

Figure 1:
Digital Model

Halus Vestas WTG
Scale 1" = 200 ft.

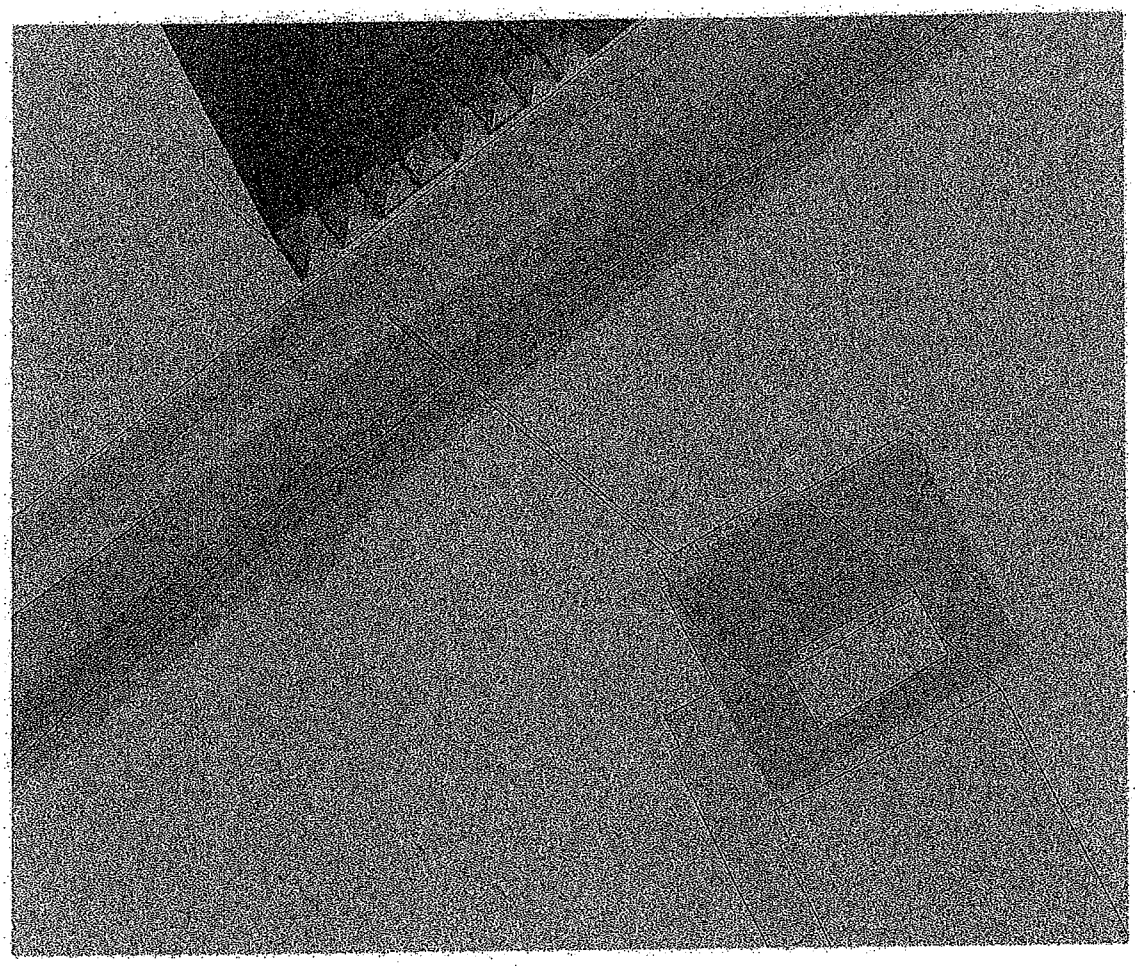

Figure 2:
December 21, Shadow at 08:30 AM

Halus Vestas WTG
Scale 1" = 200 ft.

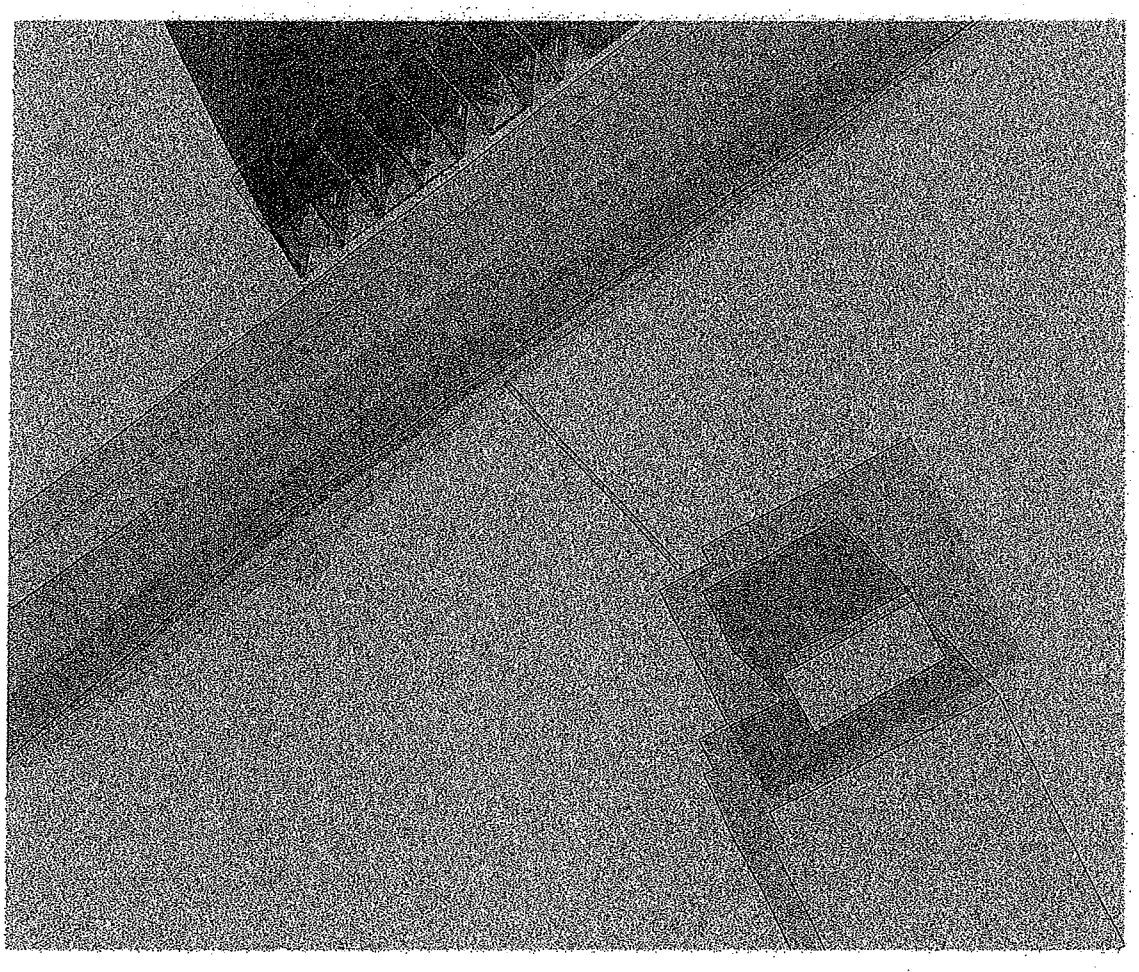

Figure 3:
December 21, Shadow at 09:00 AM

Halus Vestas WTG
Scale 1" = 200 ft.

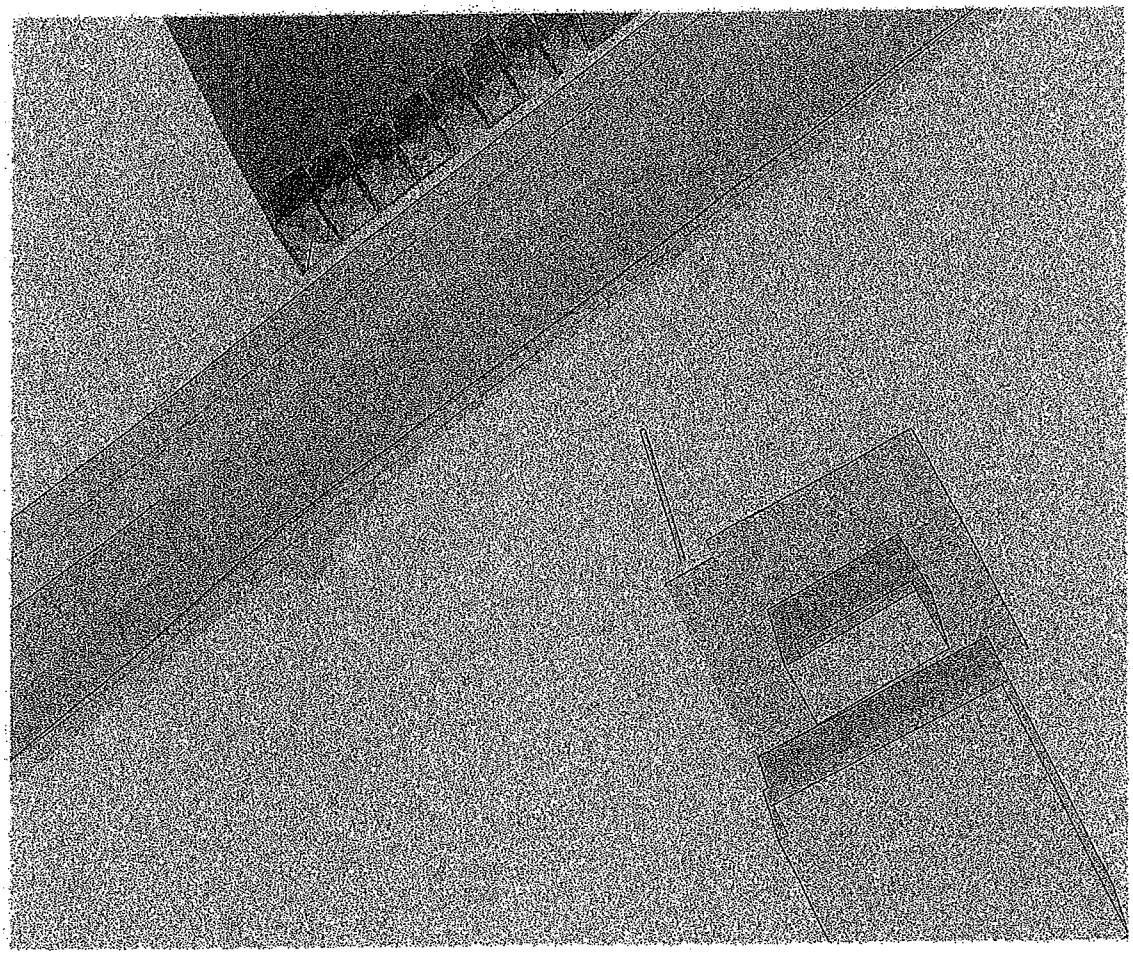

Figure 4:
December 21, Shadow at 11:00 AM

Halus Vestas WTG
Scale 1" = 200 ft.

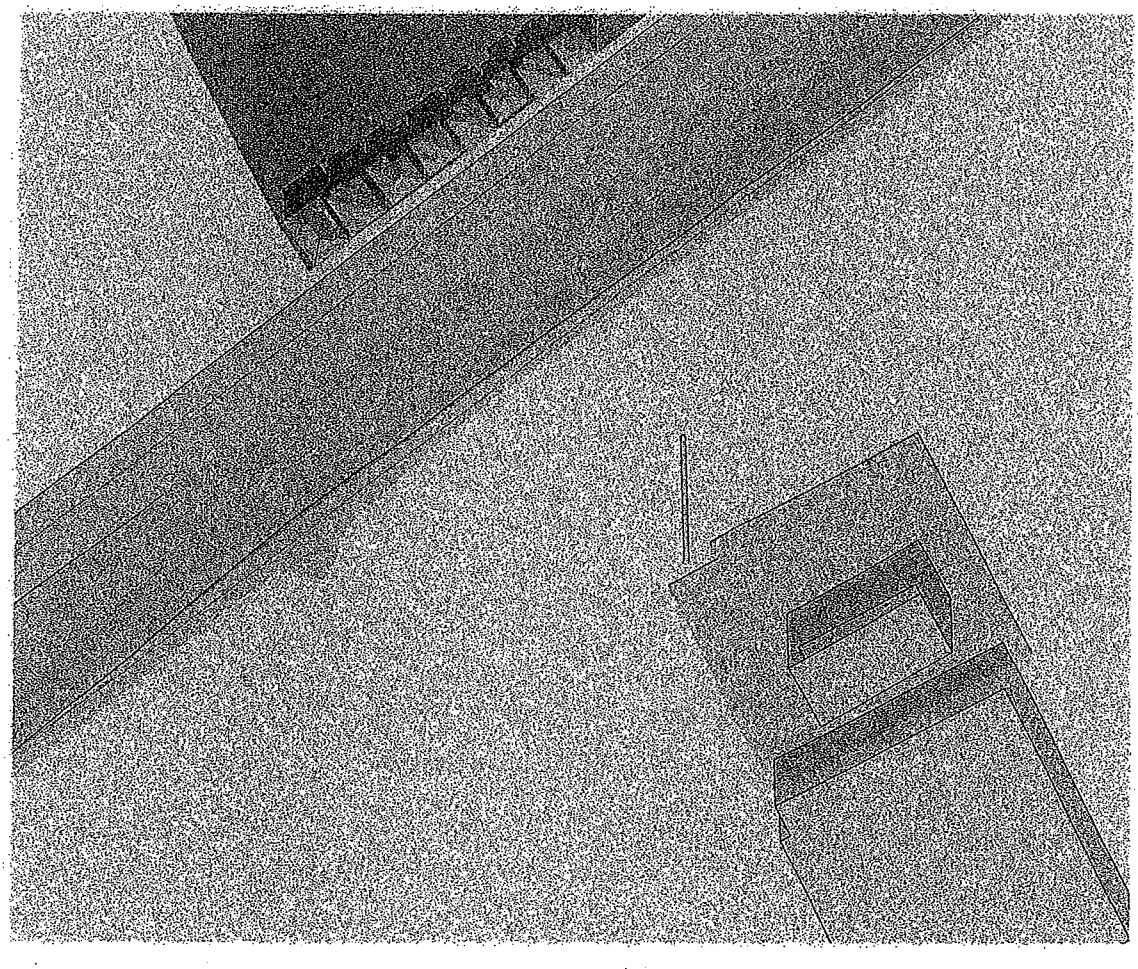

Figure 5:
December 21, Shadow at 12:00 Noon

Halus Vestas WTG
Scale 1" = 200 ft.

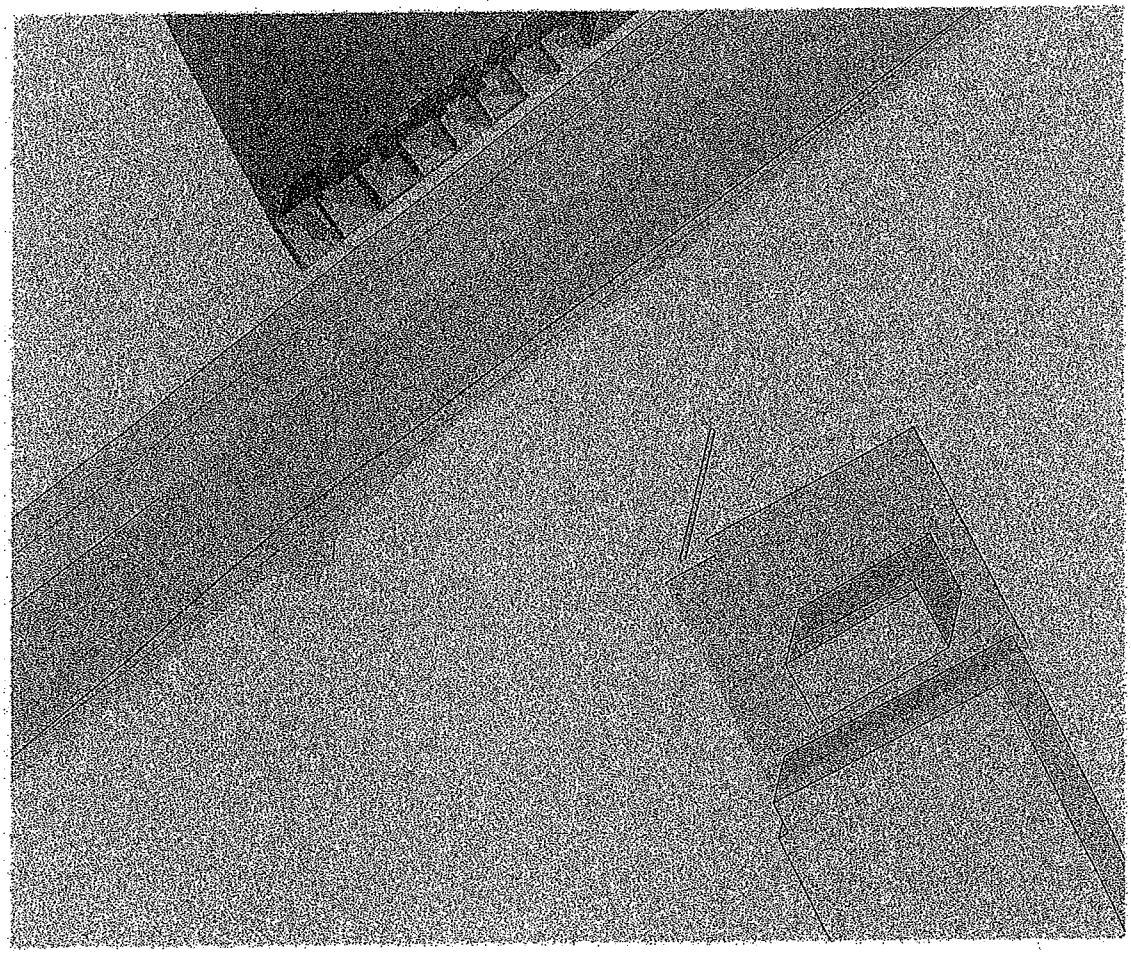

Figure 6:
December 21, Shadow at 01:00 PM

Halus Vestas WTG
Scale 1" = 200 ft.

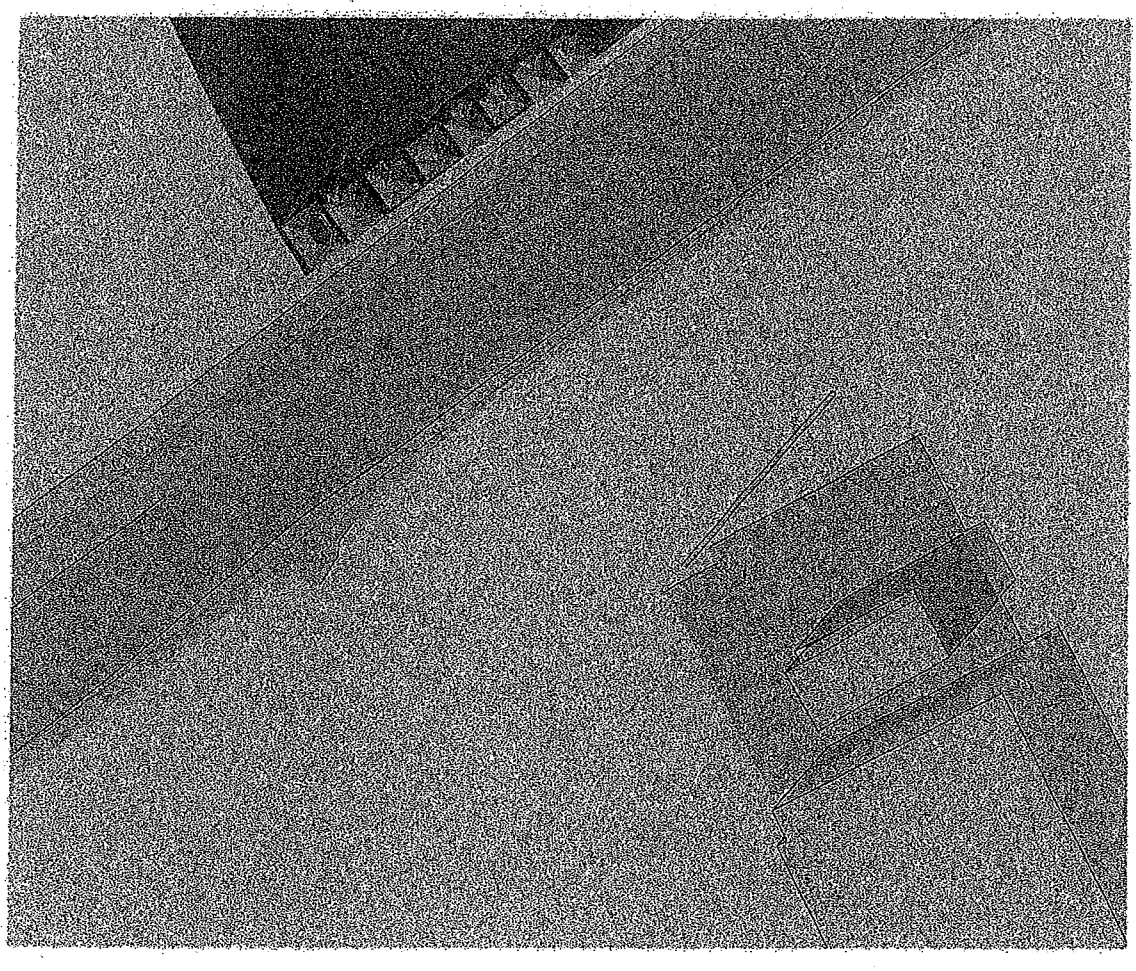

Figure 7:
December 21, Shadow at 03:00 PM

Halus Vestas WTG
Scale 1" = 200 ft.

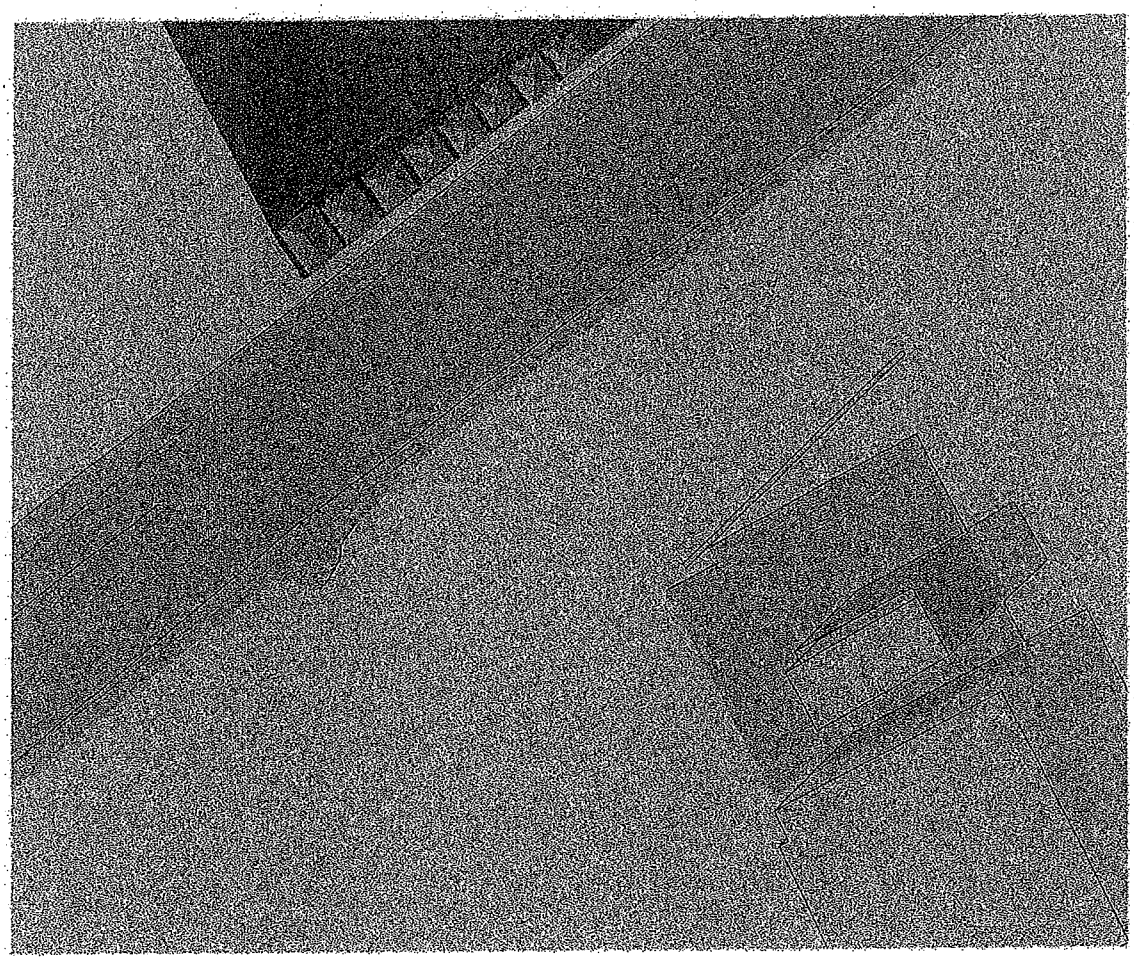

Figure 8:
December 21, Shadow at 03:30 PM

Halus Vestas WTG
Scale 1" = 200 ft.

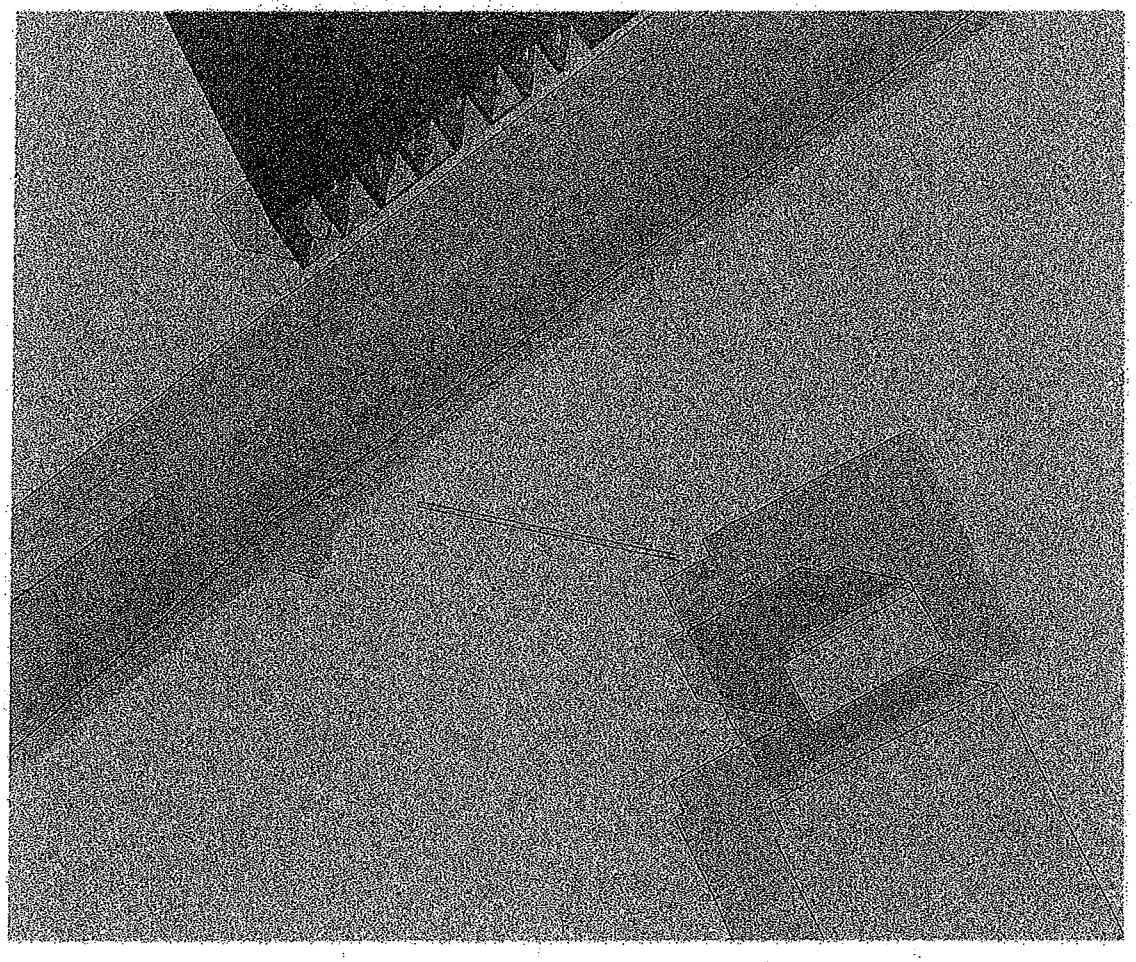

Figure 9:
March 20, Shadow at 07:30 AM

Halus Vestas WTG
Scale 1" = 200 ft.

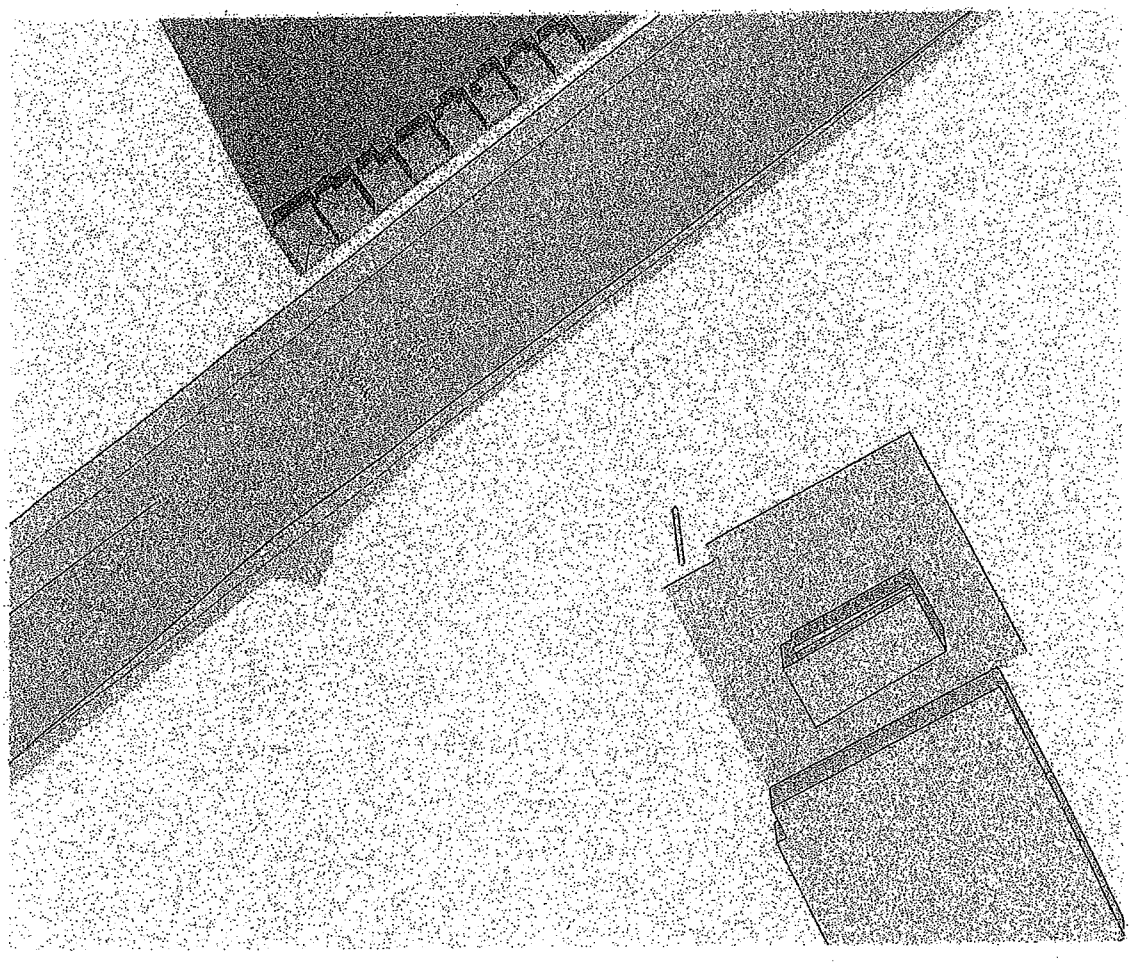

Figure 10:
March 20, Shadow at 12:00 Noon

Halus Vestas WTG
Scale 1" = 200 ft.

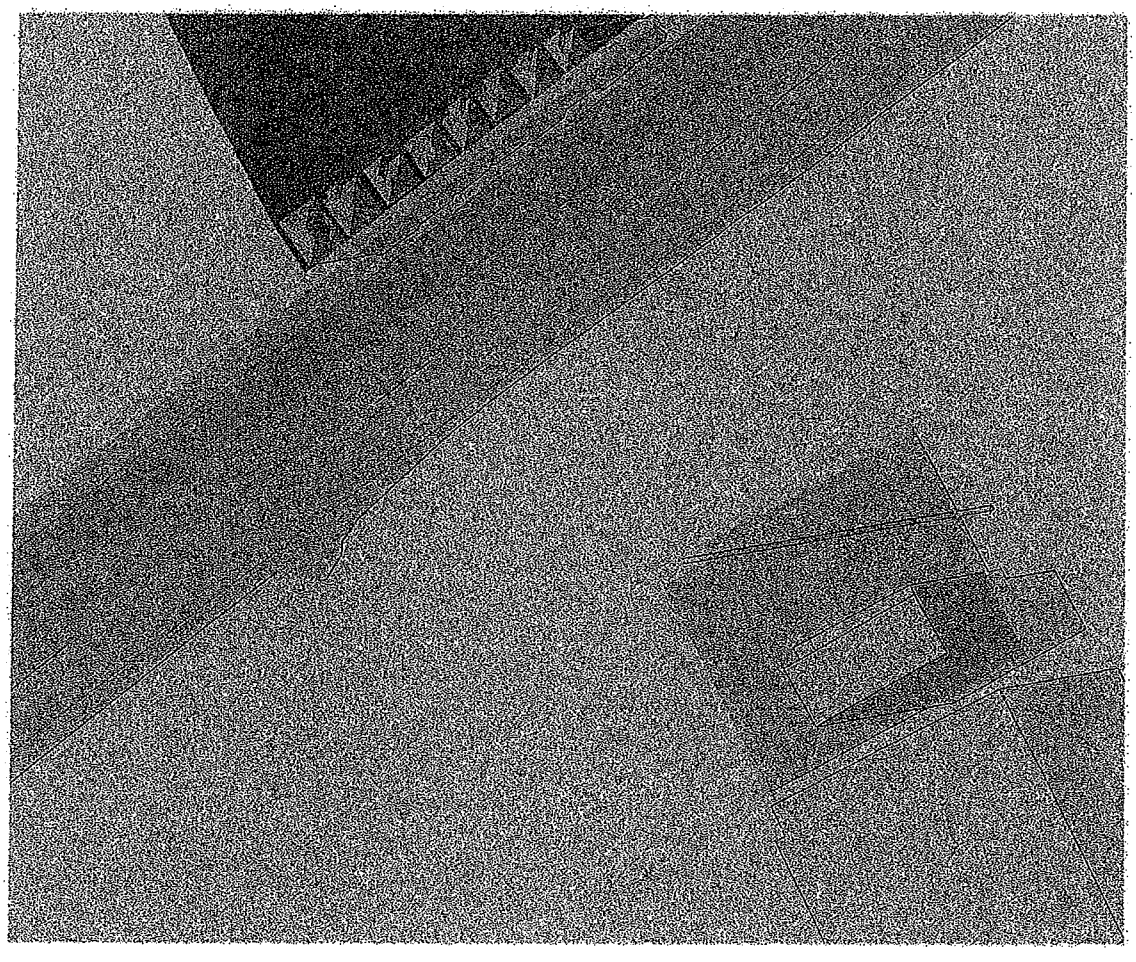

Figure 11:
March 20, Shadow at 05:15 PM

Halus Vestas WTG
Scale 1" = 200 ft.

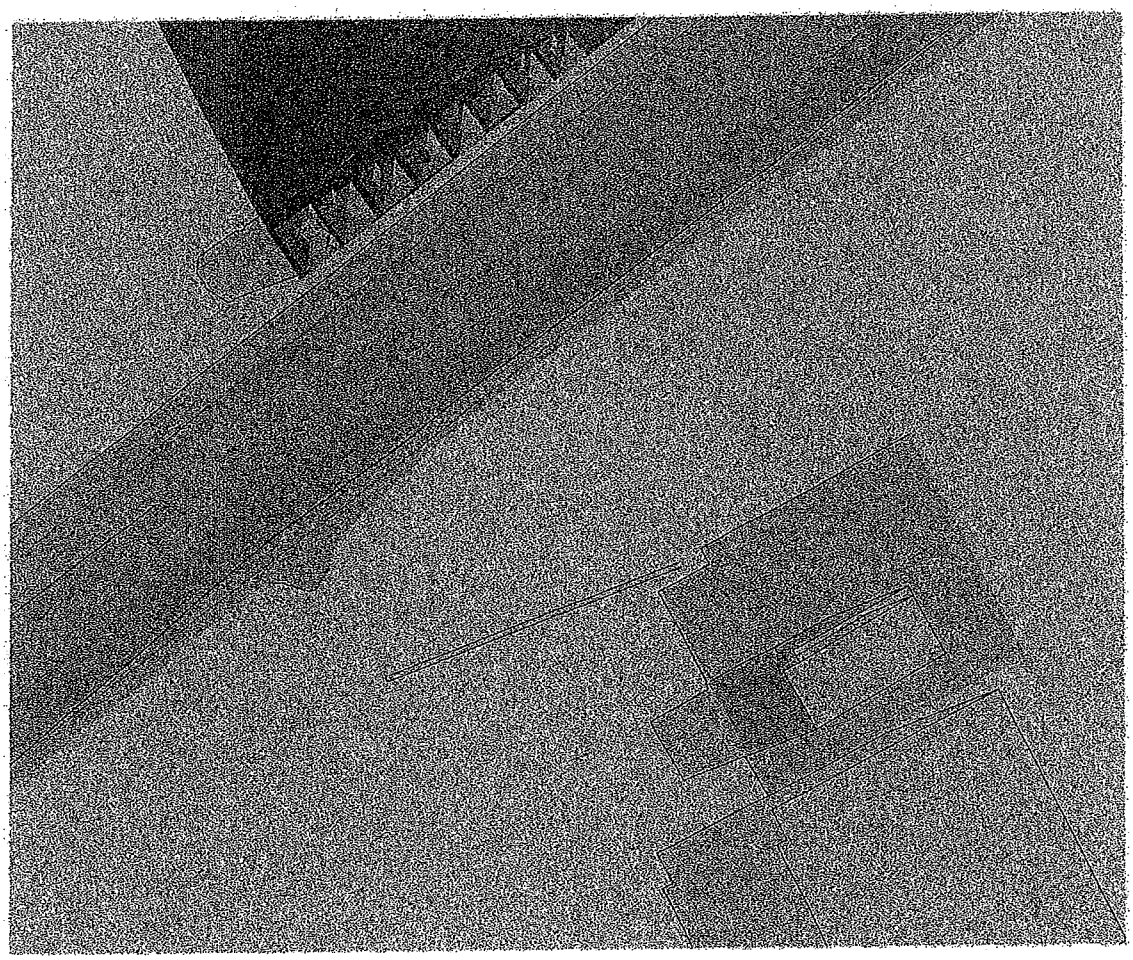

Figure 12:
June 20, Shadow at 07:00 AM

Halus Vestas WTG
Scale 1" = 200 ft.

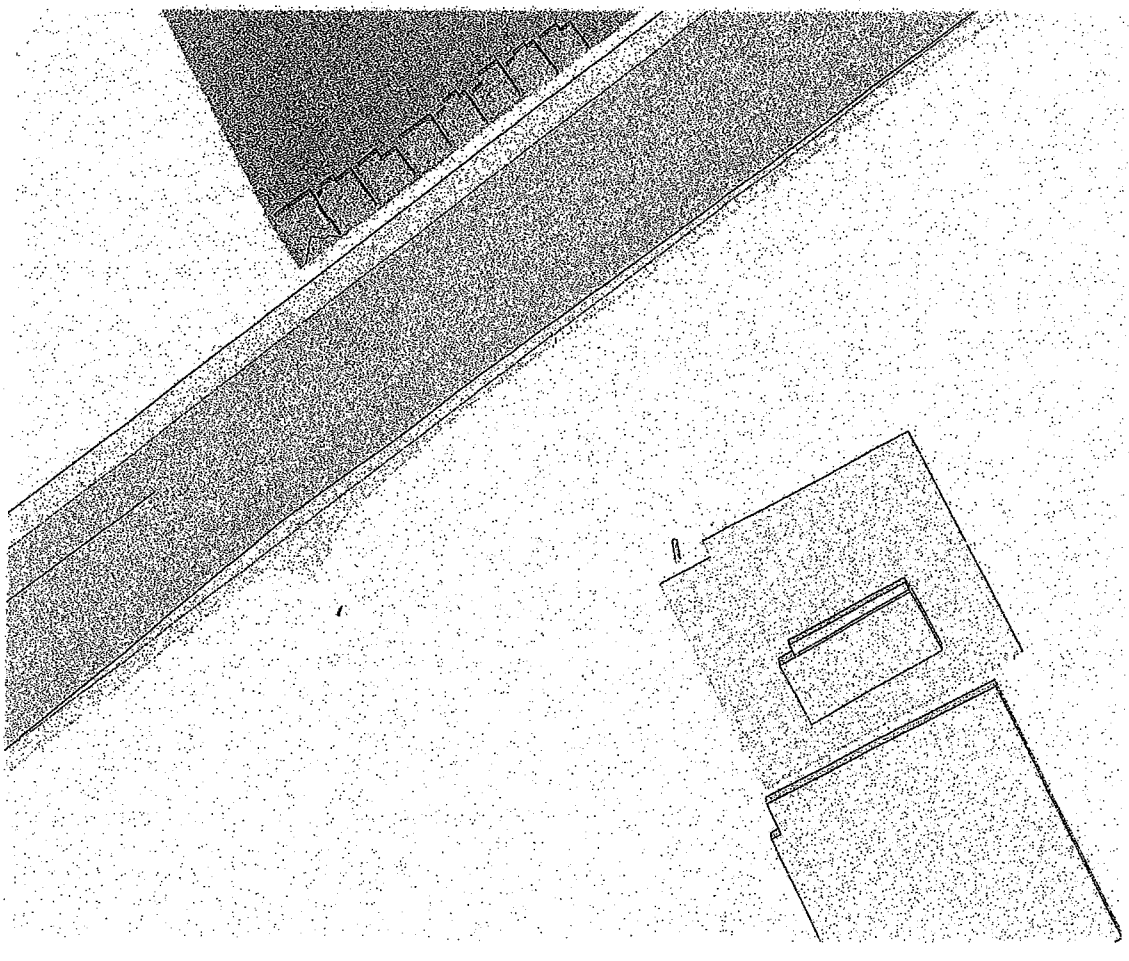

Figure 13:
June 20, Shadow at 01:00 PM

Halus Vestas WTG
Scale 1" = 200 ft.

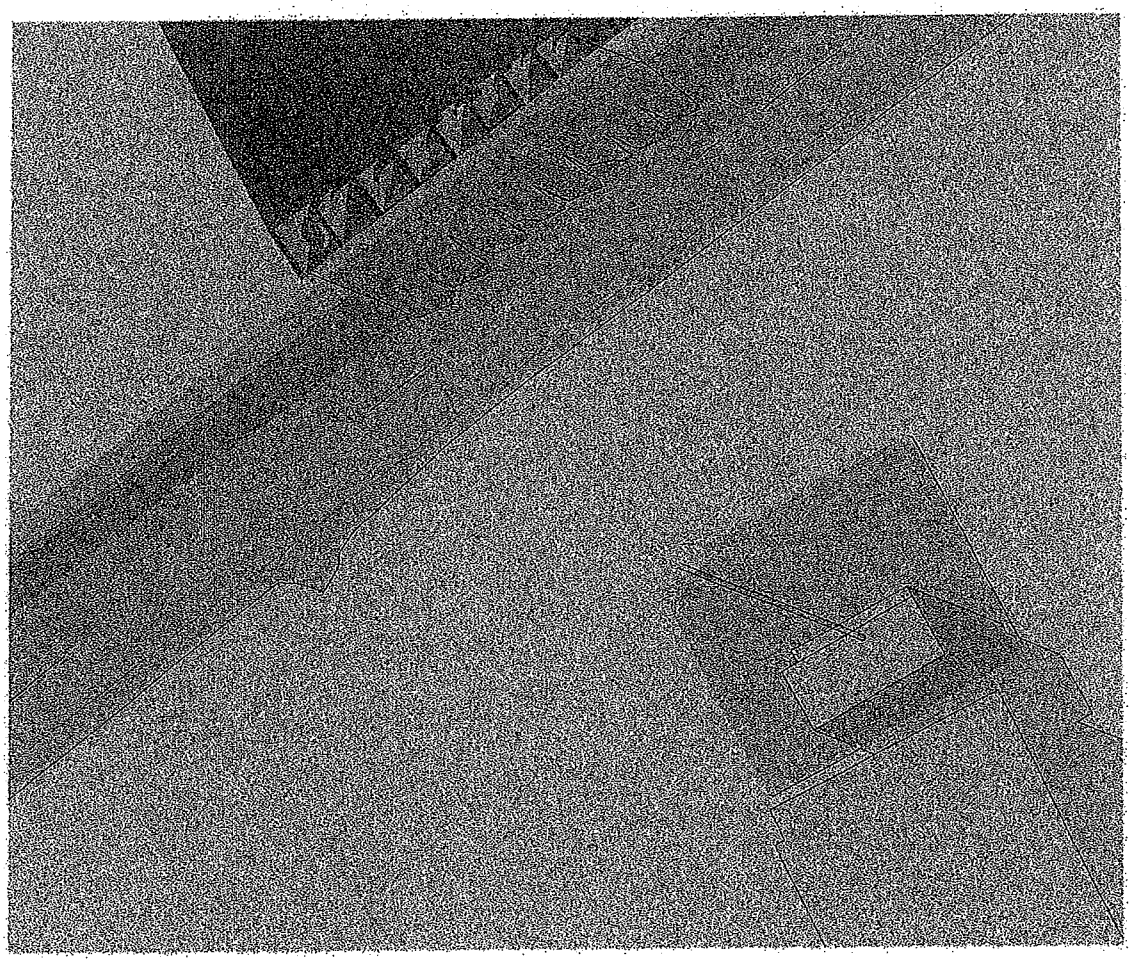

Figure 14:
June 20, Shadow at 07:30 PM

ESA

APPENDIX

City of San Francisco - Regulatory Framework for Sunlight and Shadow

City of San Francisco - Sunlight Ordinance

Section 295 of the *Planning Code*, the Sunlight Ordinance, was adopted through voter approval of Proposition K in November 1994 to protect certain public open spaces from shadowing by new structures. Section 295 prohibits the issuance of building permits for structures or additions to structures greater than 40 feet in height that would shade property under the jurisdiction of or designated to be acquired by the Recreation and Park Commission, during the period from one hour after sunrise to one hour before sunset, unless the Planning Commission, following review and comment by the general manager of the Recreation and Park Department in consultation with the Recreation and Park Commission, determines that such shade would have an insignificant impact on the use of such property.

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State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.dfg.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

Initial Study Checklist
Halus Power Systems Wind Turbine
Attachment 9

June 29, 2012

Ms. Kathleen Livermore
San Leandro Community Development Department
835 East 14th Street
San Leandro, CA 94577

Dear Ms. Livermore:

Subject: Halus Power Systems Wind Turbine, Initial Study/Mitigated Negative Declaration, SCH #2012052061, City of San Leandro, Alameda County

The Department of Fish and Game (DFG) appreciates the opportunity to comment on the proposed Initial Study/Mitigated Negative Declaration (IS/MND) for the Halus Power Systems Wind Turbine Project (Project). The Project includes the installation of a single Vesta 17 wind turbine. The wind turbine will be constructed in an open laydown yard behind Halus Power Systems building, which is approximately four acres. The wind turbine will have a maximum height of 104 feet from the ground to the tip of the blade. An open space known as East Marsh is located 600 feet from the proposed turbine location. San Lorenzo Creek is 370 feet from the Project site and is located between the Project site and East Marsh.

The Technical Memorandum (TM) written by ESA Biological Resources on May 10, 2012 states that the San Francisco Bay Estuary is renown as a major North American refuge for many species of waterfowl and shorebirds during their migration and wintering periods, as well as providing breeding habitat during the summer months. The TM also provides a list of 38 special-status resident and migratory birds that occur in the area. The TM states that Project construction and operations may result in potentially low impacts to these avian species. The Project's IS/MND states that Project construction and operations may result in potentially low impacts to fully protected, special-status, and migratory birds although no minimization or avoidance measures are proposed. Fully protected species (such as California black rail and California clapper rail) may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research.

Please be advised that a California Endangered Species Act (CESA) Incidental Take Permit (ITP) would be warranted if the Project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA Permit is subject to California Environmental Quality Act (CEQA)

documentation; therefore, a CEQA document supporting the issuance of a CESA Permit would need to specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, DFG encourages early consultation, as significant modification to the Project and mitigation measures may be required to obtain a CESA Permit.

DFG recommends that the San Leandro Community Development Department (Lead Agency) require the applicant to adopt the following avoidance and minimization measures for the life of the Project.

DFG also recommends the Lead Agency require the Project to include the following measures to minimize the potential for avian mortalities:

1. If construction must be scheduled to occur during the migratory bird and raptor nesting season (February 15 through August 15 for most birds), a qualified wildlife biologist, familiar with the species and habitats in the Project area, will be retained to conduct pre-construction surveys for raptors and nesting birds within 300 feet of construction activities. The surveys shall be conducted one week before initiation of construction. If no active nests are detected during surveys, activities may proceed. If active nests are detected then the applicant should consult with the Lead Agency and DFG on appropriate buffers.

2. To reduce impacts to raptors, the applicant shall minimize small mammal habitat from occurring beneath the wind swept area of the turbine. A gravel area extending a minimum of 100 feet on all sides from the wind turbine shall be placed and should be maintained to ensure no vegetation will grow.

3. To reduce impacts to avian species from electrocution, all electrical wires shall be placed underground or follow minimization methods established by Avian Power Line Interaction Committee.

4. If a state or federally listed species is killed during Project operations without the appropriate ITP under CESA or the federal Endangered Species Act, the applicant shall halt all turbine operations immediately. The applicant must consult with the United States Fish and Wildlife Service (USFWS) and/or DFG.

5. If a carcass is found that is federally threatened, endangered or protected by the Migratory Bird Treaty Act (MBTA), the information shall be reported by a qualified biologist to USFWS, Office of Law Enforcement, Renewable Energy Officer at (650) 876-9078 within five days of its discovery.

6. If a carcass of a species listed pursuant to CESA or Fish and Game Code Section 3511 is discovered DFG shall be immediately notified at (707) 944-5500.

7. If a species is injured as a result of Project operations, the applicant shall immediately take it to a DFG approved wildlife rehabilitation or veterinary facility, such as Sulphur Creek Nature Center, at (510) 881-6747; or Ohlone Humane Center, at (510) 797-9449. Permittee shall bear any costs associated with the care and treatment of such injured species.

8. A post-construction monitoring plan shall be approved by DFG and implemented within one month of initial turbine operation.

Thank you for the opportunity to provide input on the IS/MMD for this renewable energy project. If you have any questions, please contact Ms. Danielle Roach, Environmental Scientist, at droach@dfg.ca.gov or (707) 944-5571; or Mr. Craig Weightman, Acting Environmental Program Manager, at cweightman@dfg.ca.gov or (707) 944-5577.

Sincerely,

Scott Wilson
Acting Regional Manager
Bay Delta Region

cc: Bay Conservation and Development Commission
50 California Street, Suite 2600
San Francisco, CA 94111

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Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2012-WTW-3566-OE

Issued Date: 06/21/2012

Louis Rigaud
Halus Power Systems
2539 Grant Avenue
San Leandro, CA 94579

Initial Study Checklist
Halus Power Systems Wind Turbine
Attachment 10

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine Halus Power Systems Wind Turbine
Location:	San Leandro, CA
Latitude:	37-40-19.57N NAD 83
Longitude:	122-09-27.86W
Heights:	9 feet site elevation (SE)
	100 feet above ground level (AGL)
	109 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part I)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.
Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 12/21/2013 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (816) 329-2525. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-WTW-3566-OE.

Signature Control No: 163294512-167484894 (DNE)
Donna ONeill
Specialist

Attachment(s)
Additional Information
Map(s)

Additional information for ASN 2012-WTW-3566-OE

The proposed wind turbine would be in the line of sight for the Oakland ASR-9 (terminal radar system) used by the Northern California Terminal Radar Approach Control (NCT), Oakland (OAK) and Hayward (HWD) Air Traffic Control Towers. The turbine would cause unwanted primary returns (clutter) and primary target drops in the area of the turbine. Air Traffic Control has stated that this would not have a significant adverse effect on their operations at this time.

TOPO Map for ASN 2012-WTW-3566-OE

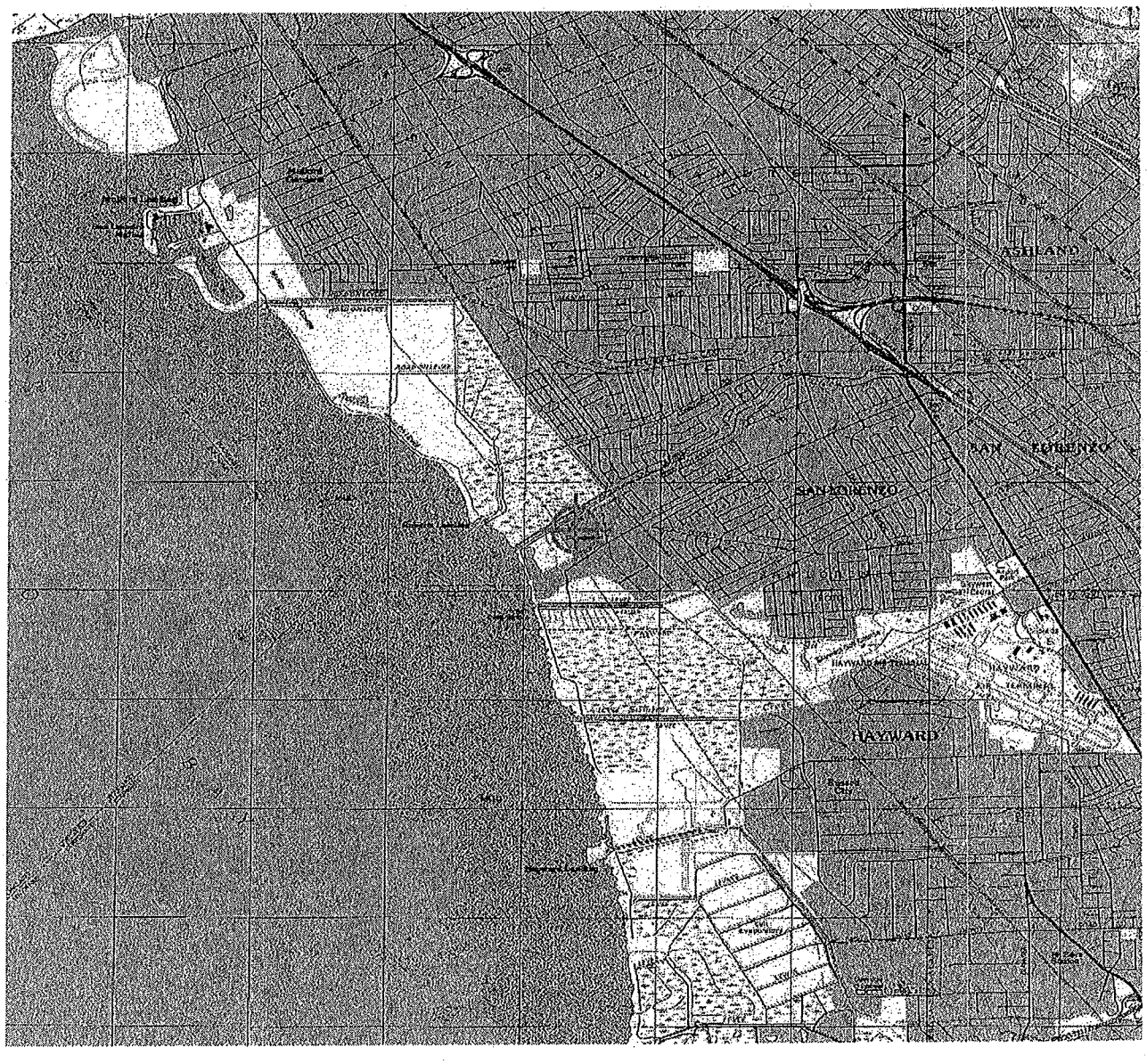

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EXHIBIT B

Responses to Comments on Mitigated Negative Declaration

Response to Comments on Mitigated Negative Declaration
Halus Power Systems
Variance Application
January 29, 2013

The City prepared a revised and recirculated Mitigated Negative Declaration (MND) dated October 11, 2012 for the Halus application. While responses to comments on a proposed Mitigated Negative Declaration ("MND") are not required by the California Environmental Quality Act ("CEQA"; Pub. Resources Code, § 21000 et seq.), this Response to Comments document is provided to demonstrate the City's careful consideration of the comments in compliance with CEQA. These responses provide the City's good faith, reasoned analysis on the major environmental issues raised in the comments. The MND is available online at: http://www.sanleandro.org/depts/cd/plan/polplanstudiesceqa/default.asp

Discussion herein is also provided to set forth and clarify the relevant legal framework established by CEQA, set forth relevant information regarding the Project and the procedural history of the Project application and its environmental review, and to document and establish the bases for the findings and conclusions included in this "Response to Comments" document.

Response To Comments Structure and Contents:
This Response to Comments document is organized into the following sections:

Introduction

Section I: Responses to Comments

A. The Heron Bay Homeowners Association Comment letter including:

1. **Letter from A. Alan Berger**
2. **Letter/Report from Paul Taylor Consulting**
3. **Letter from Benny Lee, President of the Heron Bay HOA**

B. Individual Comment Letters

Section II: Conclusions

Appendices:

Appendix 1, All Responses to Comments (Section I, annotated)
Appendix 2, Photographs dated January 13, 2013 (six photographs)
Appendix 3, Excerpt from San Francisco Bay Trail East Bay Map
Appendix 4, Charles Bennett Résumé, ESA, Senior Managing Associate

INTRODUCTION

The City received comments in response to the proposed Mitigated Negative Declaration including:

A. Official Letters from Heron Bay Homeowners Association in the form of three different letters
   1) Letter by A. Alan Berger on behalf of the Association.
   2) The Paul Taylor Consulting Report and;
   3) Letter from Benny Lee.

B. In addition, 20 individuals submitted comment letters

All comment letters listed above are attached hereto as Appendix 1 and have been annotated in the margins to depict the responses that pertain to the specific comments. Responses to Comments #1 through 30 are provided in Section I.

SECTION I - RESPONSES TO COMMENTS:

Response 1:
Pursuant to Public Resources Code Section 21064.5, a MND is properly used "when the Initial Study has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by the applicant before the proposed negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." A lead agency "shall"—a mandatory term meaning "must"--adopt a negative declaration or mitigated negative declaration instead of preparing an EIR if there is no substantial evidence in light of the whole record that the project, as proposed or revised, may have a significant effect on the environment. (Pub. Resources Code, § 21080(c); CEQA Guidelines § 15070(a); *see* 1 Kostka & Zischke, *Practice Under the California Environmental Quality Act* (CEB2d Ed, 2012 Update), section 7.2, p. 393.)

Conclusion:

The City of San Leandro in its preparation of a MND has conclusively determined that the proposed project, with the incorporation of the mitigation measures agreed to by the applicant, clearly will not have a significant effect on the environment and that no substantial evidence in the light of the whole record has been presented to the City that the proposed project may have a significant effect on the environment.

Response 2:
Summary Conclusions Regarding Heron Bay Homeowners Association Comments
(including those of Attorney A. Alan Berger, Paul Taylor Consulting and Heron Bay Association President Benny Lee)

The City has evaluated the comments of Mr. Berger, Mr. Taylor and Mr. Lee including the reports, findings and opinions therein, and has concluded that a substantial number of the assertions and conclusions made by them are based upon inaccurate information or unsubstantiated claims about the proposed project, its operating characteristics, location and the precise geography of the area. This lack of factual accuracy undermines the ultimate conclusions asserted in their letter and therefore, the City may disregard their comments and conclude that they are not "expert opinion based on fact" and that Mr. Berger, Mr. Taylor and Mr. Lee are insufficiently qualified to render such expert opinions and consequently, the City may conclude that their opinions should not be credited as "substantial evidence" under CEQA (See CEQA Guidelines section 15384).

As a preliminary matter, since Mr. Taylor's letter is presented as expert opinion evidence on all environmental issue areas, and the Association relied on it for the conclusions drawn in their own comments, Mr. Taylor's résumé and experience offered to support his asserted expert qualifications are relevant and important considerations for the City's judgment in concluding whether he is sufficiently qualified to render such expert opinions on various issues, and consequently whether his opinions should be credited as "substantial evidence." The City is entitled to judge the credibility of the witnesses and evidence presented to it determining whether such evidence is reasonable, credible, and of solid value so as to constitute the requisite "substantial evidence."

For example, in the area of biological resources and particularly in the area of potential impacts to wildlife, including shore bird species, Mr. Taylor identifies objections and voices concerns over the findings including in the MND that rely on a report prepared by ESA, a San Francisco-based environmental consulting firm. In evaluating the information and conclusions provided in the MND, the City of San Leandro may consider Mr. Taylor's qualifications in determining whether his opinions are "expert," and may also consider whether his opinions are "clearly erroneous" or are "supported by fact," in determining whether Mr. Taylor's letter qualifies, in whole or in part, as substantial evidence.

Mr. Taylor's résumé (attached to the comment letter) provides information on his academic and professional background. He holds a B.S. in Biology/Chemistry from Livingston University in Alabama; an M.S. in Environmental Sciences from Tulane University in New Orleans and in addition to being a Principal at Paul Taylor Consulting in Los Angeles, CA, is a member of Forensis Group, a placement firm for expert witnesses and consultants in a variety of professional disciplines. Although the résumé lists Mr. Taylor's academic degrees, it does not describe specific experience, expertise or qualifications in the areas of visual analysis, biological resources, noise, geology/soils, hazards and hazardous materials, let alone specific subareas such as bayshore birds, aircraft navigational radar, or shadow effects upon which he opines. For instance, Mr. Taylor challenges the findings of the Mitigated

Negative Declaration related to biological resources, but provides no credentials that would serve to qualify him as an expert in that area. To be a credible expert in assessing the proposed project's potential impacts on biological resources, it would be reasonable to assume that he had relevant training and experience related to the bird species that populate the area near the proposed project. The submitted résumé lists no such training or experience. By contrast, ESA, the firm engaged by the City and the applicant for this project, is a well-regarded San Francisco-based environmental consulting firm with a 25-year history of work that is specific to the San Leandro shoreline. ESA has specific and relevant experience related to the species in the vicinity of the proposed project in that ESA prepared the mitigations plans that resulted in the design of the marshes along the San Leandro shoreline in the 1980's and has had an active and ongoing role in evaluating development and mitigation proposals in San Leandro since that time. The City in concluding that there is no substantial evidence in light of the whole record before it that the project, as revised, may have a significant effect on the environment as to biological resources including shore birds, did so in reliance upon the expertise of ESA, as documented in the MND.

As noted, in evaluating whether to accept the assertions, conclusions, findings and recommendations included in the Association's letter as "substantial evidence in the record," the City of San Leandro must determine whether Mr. Taylor's assertions constitute "expert opinion supported by fact."

The City has evaluated Mr. Taylor's report and the findings and opinions therein, and has concluded that a substantial number of the assertions and conclusions made by Mr. Taylor are based upon inaccurate information about the proposed project, erroneous descriptions of its location and a general lack of knowledge regarding the precise geography of the area, as documented herein. These errors, inaccuracies and lack of knowledge undermine the ultimate conclusions drawn in his report since they are not "expert opinion supported by fact." Specific responses to the biology and other assertions and conclusions from the Association and Mr. Taylor are included below.

Response 3:
The Association letter states "the proposed wind turbine is proposed to be located at the northern boundary of the Halus Power Systems property and the southern boundary of Association homes." This is incorrect.

As shown in the MND, the proposed project is located at a central point on the Halus property, not the northern edge of the property. The Halus property does not abut the Heron Bay property but is separated from it by the existing Alameda County Flood Control land comprising the San Lorenzo Creek.

Response 4:
The City provides the following information to clarify the MND process described in the comment. Halus Power Systems submitted an application to the City of San Leandro for a small wind turbine to be located at 2539 Grant Avenue. The City of San Leandro issued a proposed Mitigated Negative Declaration (MND) on May 22, 2012 and provided notice pursuant to and in compliance with State law and the City's notification policies.

The applicant met with the Heron Bay Homeowners Association at their regularly scheduled meeting on June 20, 2012. Based upon feedback received at the June 20th meeting and written comments on the MND, Halus agreed and the City provided additional information and revised and recirculated the MND, which was dated October 11, 2012. The MND was re-circulated for a 30-day review period, with all required public notice, ending November 13, 2012. In addition, a notice of a December 6, 2012 public hearing before the San Leandro Board of Zoning Adjustments (BZA) was provided.

The December 6th hearing was continued to provide additional time to consider the comments provided during the comment period. A BZA meeting public hearing has been set for February 7, 2013 to consider the MND and the project application. The BZA hearing will be fully noticed as required.

Response 5:
The Association's comments regarding the Fair Argument Standard are noted and accurately state CEQA's relevant statutory standard. CEQA and its interpretive case law and guidelines set forth several other principles relevant to the application of this standard. For purposes of CEQA, "substantial evidence includes fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact." (Pub. Resources Code, § 21080(e)(1).) "Substantial evidence is not argument, speculation, unsubstantiated opinion or narrative, evidence that is clearly inaccurate or erroneous, or evidence of social or economic impacts that do not contribute to, or are not caused by, physical impacts on the environment." (*Id.*, §21080(e)(2).)

In *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885, the Court of Appeal reviewed and reversed a trial court judgment ordering the preparation of an EIR for a 219-lot hillside subdivision project and held the City's approval of a MND for the project was correct and in compliance with CEQA. In rejecting arguments that the subdivision project would have significant aesthetic impacts requiring an EIR, the Court of Appeal distinguished the same cases that have been cited and relied on by the Association and its attorney in their comments here, and the Court of Appeal stated in its analysis (in part): "Under CEQA, the question is whether a project will affect the environment of persons in general, not whether a project will affect particular persons." [citations] Furthermore, "California landowners do not have a right of access to air, light and view over adjoining property." [citation]."

It went on to further explain the reasons it rejected the project opponents' arguments of significant adverse aesthetic impacts: "It is important to recognize that there is no evidence that the housing project will impact any public views, vistas or scenic highways. 'That a project affects only a few private views may be a factor in determining whether the impact is significant.' [citing *Ocean View Estates* case] The initial study states, "that there are no scenic views or vistas located in the project vicinity. There is no evidence in the record contradicting this determination. ...". The Court of Appeal went on to cite a case holding that construction of a house with aesthetic impacts on only a few neighbors did not raise concerns affecting "the environment of persons generally" (*id.* at 902-903, citing *Association for*

Protection etc. Values v. City of Ukiah (1991) 2 Cal.App.4th 720), and to *distinguish* the case before it from *both* the *Ocean View Estates* and *Quail Botanical Gardens Foundation* cases (the same cases cited by the Association here) on the basis that the case before it presented no "evidence of adverse impact on a public view, park or trail...." (*Id.* at 903.) Further, it noted the only concerns raised regarding aesthetic impacts were "vague and unsupported by a specific factual basis or any photographic evidence" and concluded: "These vague complaints do not rise to the level of substantial evidence supporting a fair argument that the housing project may have a significant adverse aesthetic impact." (*Id.*)

As indicated by the above authority, to show that the MND is not appropriate and required by CEQA here, the record must contain "substantial evidence supporting a fair argument that the project may have a significant adverse aesthetic [or other environmental] impact." For purposes of CEQA, "substantial evidence includes fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact." (Pub. Resources Code, section 21080(e)(1).) "Substantial evidence is not argument, speculation, unsubstantiated opinion or narrative, evidence that is clearly inaccurate or erroneous, or evidence of social or economic impacts that do not contribute to, or are not caused by, physical impacts on the environment." (*Id.,* section 21080(e)(2).)

For a fair argument to be supported by substantial evidence, it must be based upon an accurate factual understanding of the proposed project. After review of the Association's and Mr. Taylor's assertions, the City has concluded that the numerous errors, inaccuracies, incorrect references regarding the project description, the project site, its surroundings and biology and the numerous inaccurate conclusions that are not supported by fact, invalidate that a fair argument has been made regarding the project having a significant environmental impact on biological, or any other, CEQA resources.

Response 6:
No substantial evidence has been provided that would support a conclusion that *any* scenic vistas or public views are "compromised" or "destroyed." While CEQA does consider impacts to public vistas, there is no similar provision for impacts to solely private views. The referenced views are private views only, and are not pristine as they are comprised of fully developed, heavy industrial buildings, and uses, which include a sewage treatment plant, PG&E electrical transmission towers and sub station, other utility structures including a cell phone antennae, a junk yard, extended cranes, and numerous industrial buildings. Furthermore, the Association's comment that the MND should not be allowed to rely on the presence of existing power lines and what is already onsite, is directly contrary to CEQA. CEQA Guidelines section 15064(b), for example, states that "... an ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting. ..."

The photo simulations provided by the applicant in the MND confirms it is not possible to stand at the southwest corner of Heron Bay and view both the bay waters and the Halus property simultaneously. The Halus property is located to the southeast of the southwest corner of Heron Bay and would be behind a person looking to the bay waters from that vantage point. The MND includes many photographs that simulate the proposed location of

the turbine from the Bay Trail. See MND photos 4-9 of 11 showing that trail users would be facing away from the Bay to see the proposed turbine, and generally looking across and towards existing industrial uses. The area adjacent to Halus on its north side is the San Lorenzo Creek canal, which is maintained by the County flood control district. The area adjacent to Halus is enclosed by locked gates at either end, is not authorized for public use, and is not part of the Bay Trail. The nearest segment of the Bay Trail is at the locked gate near the southwest corner of the Heron Bay site, and as shown in MND photos 9-10 of 11, affords no view of both the bay waters and the project. Public views comprising any scenic vista in the area would commence at the Bay Trail, just beyond the enclosed canal area looking west towards the marsh and baylands. The project site would not be within the scenic vista from this public vantage point. The MND photos and additional photos appended to these responses confirm the industrial nature of the views facing the subject property. Two of the photos were taken from the southwest corner of Heron Bay showing the Halus property and surrounding industrial property. The proposed turbine location is not in a scenic vista as supported by substantial evidence in the MND and record and there is clearly no potential for significant impact to the environment with respect to scenic vistas. The Association letter and the Taylor report provide no substantial evidence to show the turbine is in a scenic vista or significantly impacts public views.

Response 7:
The first part of the statement in Line 16 of Page 9 of the Association letter is accurate ("the applicant did not take photos from private property that was inaccessible to it or the general public"). The remainder of the statement asserts, without providing any photographic evidence to support the assertion, that 25 homes would have private views significantly adversely impacted by the proposed project. No evidence is provided to demonstrate an impact and no evidence is provided that would allow the City to conclude that any alleged "impacts" affecting this number of private views would constitute impacts that "affect the environment of persons in general" so as to potentially constitute significant adverse environmental impacts under CEQA.

The MND demonstrates the proposed turbine would be central to the Halus property, and therefore, given the significant distances between the turbine and the Heron Bay residences (the closest residence is well over 500 feet away from the proposed turbine location) it would not be predominantly visible from the entire row of approximately 25 Heron Bay homes on the southern border of the Heron Bay development. Further, any private views of the turbine from approximately half of this row of homes would be obscured, either totally or nearly so, by an intervening industrial building, the San Leandro Distribution Center building (2505-2515 Grant Avenue) which is approximately 600 feet long and 30 feet high, as well as backyard fences and numerous trees of significant height.

The MND also provided photo simulations, including sample photos from a publicly accessible trail only a few feet away from a Heron Bay fence on the southwest corner, that substantiates the de minimus character of the private view to the proposed turbine from that area.

Response 8:
These statements suggest and lead the reader to believe that that the proposed turbine would be located *within* approximately 300 acres of protected marsh and creek. This is incorrect. The proposed small wind turbine will be built on land that is zoned for heavy industrial uses and in no way will impact the bay and the marsh. The turbine would be built on private property owned by the Applicant, and which has been occupied by industrial uses for 40 years. The proposed turbine location is not in a scenic vista. The Association letter and Taylor report have provided no evidence to show the turbine is in a scenic vista or significantly impacts public views.

Response 9:
Contrary to the comment, twenty-five (25) homes would not have direct and unimpeded views of the proposed turbine. As the proposed turbine would be located at the center of the Halus property, it would not be visible from the entire row of approximately 25 Heron Bay homes on the southern boundary of the Heron Bay development. Most of the 25 homes along the southern border of Heron Bay would have significantly obstructed views of the Halus property and the turbine, as the adjacent San Leandro Distribution Center building at 2505-2515 Grant Avenue is approximately 600 feet long and 30 feet high and would block most or all of the view for many of these houses. Additionally, as shown in the photos in the MND and these responses, existing private trees, landscaping and fencing at the rear of the homes and County trees and landscaping along San Lorenzo Creek would significantly block the view from the majority of the homes.

Response 10:
The proposed wind turbine includes blades that are approximately 20 feet long and 2 feet wide (area about 50 square feet). A comparison of the proposed turbine to a Cessna 500 aircraft spinning atop a tower on a horizontal axis is inaccurate in the context of realistic and substantive analysis of visual and environmental impacts. A Cessna 500 aircraft has the following approximate characteristics: wing area of 300 square feet; wingspan of 50 feet; total length of 45 feet; height of 15 feet; and a fuselage large enough to seat 8 people. The Association's assertion is provided without any photographic or other evidence, or reference to proportions, mass, surface area and shape. Reliance upon this characterization creates a significant misunderstanding of the nature and dimensions of the proposed project and a misleading and inaccurate portrayal of visual impact. Neither the assertions nor the conclusions are supported by facts.

Response 11:
Mr. Taylor's and the Association's letters incorrectly characterize the location and distance from homes, distance from the Bay Trail, and the number of homes with views of the proposed turbine. The Google Earth aerial photo included in the MND confirms that the Halus property does not abut any of the Association homes and is separated from the homes by the Alameda County Flood Control land including parts of the San Lorenzo Creek. Further, the proposed project site is located near the center of the Halus property, more than 500 feet from the nearest Heron Bay residence. There are approximately 8 residences located roughly 500-600 feet from the proposed turbine. Approximately 10 residences are

located 600-700 feet from the proposed turbine and approximately 50 residences are 700-1,000 feet away from the proposed turbine. The remaining 500+ homes are approximately 1/4 mile or more from the proposed turbine. This incorrect description of distance and the affected homes overstates the number of affected views, the magnitude of visual effect and renders conclusions that are not supported by fact. As shown on the map submitted with the MND the proposed wind turbine location is greater than 350 feet from the Bay Trail.

Response 12:
The Association claims that the turbine would be "in the middle of such protected areas" is incorrect. The proposed turbine would be constructed on land that is zoned for and has been occupied by heavy industrial uses for decades. Any claim that the proposed project would be within a protected area is untrue and unsupported by fact.

Response 13:
While there may or may not be other similarly located wind turbines, the Association has provided no evidence to suggest that there have been proposals that have been denied or rejected near or adjacent to the Bay Trail. The project will not and cannot be "precedent setting" given that pursuant to the City of San Leandro's Zoning Code, any similar application would require discretionary review by the BZA in the form of a Variance application. The findings required for approval of a Variance ensure that each project would be considered on its merits and each application would be the subject of a public hearing and review process.

Response 14:
While a project's "purpose" is not the focus of the CEQA process, for purposes of clarification, it should be noted, that Halus' clients are located throughout the United States and Europe. Few customers, if any, visit the subject property. The primary purpose of the proposed turbine is to allow onsite research and development and onsite testing of new wind turbine components.

Response 15:
The MND included a comprehensive shadow analysis prepared by ESA, a highly qualified environmental consulting firm, which concluded that the proposed project would have no significant shadow or shadow flickering impacts. ESA used the shadow evaluation standards as used in the City of San Francisco (as the City of San Leandro has no similar standards for shadow evaluations). ESA evaluated the worst-case shadow condition that would be created by the proposed turbine which is one hour after sunrise and one hour before sunset on any day of the year, including winter solstice on December 21st (the day of the year with the longest shadows cast). ESA concluded that the turbine would cast no shadows on any of the Heron Bay properties or any other publicly accessible properties. The analysis reflects a very minor amount of shadowing with a very short duration and during an insignificant time period (the winter solstice, December 21st) on an area not designated as either Bay Trail or open space, but is a maintenance access road area for the San Lorenzo Creek. This area, which extends from the southwestern corner of the Heron Bay homes to the southeastern corner of the Heron Bay homes on both sides of the creek, is closed to public access as flood control land. In further evidence that this is not publicly accessible open space, there are a

number of "no-trespassing signs" posted by Alameda County at both ends of the maintenance area citing a $500 fine for trespassers. See attached Appendix 2, Photographs dated January 13, 2013 "Alameda County Flood Control/No Trespassing."

The MND and these responses comprise substantial evidence that no significant shadowing effects will occur from the project. There is nothing in Mr. Taylor's résumé showing any expertise in shadowing effects or analysis, therefore, his conclusions are not expert opinion supported by facts and are not substantial evidence of a fair argument with respect to shadowing.

Response 16:
The MND included many specifically labeled photographs provided by the applicant that were taken from multiple vantage points on the public trails and adjacent to the Heron Bay backyards on the Southwest corner of that property. The applicant accurately simulated the height of the proposed turbine by initially photographing a crane extended to the turbine height. The photos were carefully and precisely augmented with a simulation of the turbine. This detailed effort confirmed that the scale was accurate. Finally, the proposed project is not within a "*scenic vista*" but is located in a fully developed industrial area. The Association and Mr. Taylor have provided no evidence nor any fair argument that the proposed project would have a significant environmental impact with respect to shadowing or visual resources.

Response 17:
A comment letter submitted by Mr. Benny Lee is incorporated and adopted by the Association. The Association in "incorporating and adopting" Mr. Lee's opinions used those opinions to support the conclusions drawn in the Association letter. Mr. Lee's role as president of the Heron Bay Homeowners Association is the sole qualification cited for the Association's reliance upon the points raised in his letter. No résumé or citation of experience were submitted to support his qualifications; no evidence established his opinions are intended as expert. Mr. Lee's opinions, and his qualifications to assert those opinions are relevant and important considerations for the City's judgment in concluding whether he is sufficiently qualified to render expert opinions on various issues, and consequently whether his opinions should be credited as "substantial evidence." The City is entitled to judge the credibility of the witnesses and evidence presented to it determining whether such evidence is reasonable, credible, and of solid value so as to constitute the requisite "substantial evidence." The City of San Leandro must determine whether Mr. Lee's assertions constitute "expert opinion supported by fact."

The following are responses to the points raised by Mr. Lee in his letter (and incorporated and adopted into the Association letter):

> ***17-1:*** CEQA is not an economic protection statute. Landowners surrounding a proposed project do not state a valid CEQA concern when they express fears that the proposed project could adversely affect their property values. (*Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885, 903, citing *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 157 Cal.App.4th 1184, 1205 [CEQA is "not a fair competition statutory scheme" and "[t]herefore, the

economic and social effects of proposed projects are outside CEQA's purview."].) Further, "A social or economic change by itself shall not be considered a significant effect on the environment." (14 Cal. Code Regs. ["CEQA Guidelines"], section 15382.) Finally, Mr. Lee's comments regarding Halus' economic status relative to any other business or homeowner are not relevant to the discussion of environmental impacts.

The Association makes similar comments to Mr. Lee's on property values (pp. 14-15), to which the above also applies. There is no evidence to support the Association's further comments on urban decay from assertedly unsightly projects.

17-2: Mr. Lee's comments regarding his family's experience with migraines do not rise to the level of substantial evidence supporting a fair argument that the proposed project may have a significant adverse environmental impact or affect persons in general. Mr. Lee's inference that there could be a relationship between the proposed project and the triggering of health effects of persons in general is speculation that is not supported by fact.

17-3: Comments noted. Mr. Lee's observations, opinions and statements regarding concerns that the proposed project may invite other wind turbines is speculative and unrelated to the environmental effect of the proposed project and contains false assertions. While there may or may not be other similarly located wind turbines, no evidence has been provided to suggest that there have been proposals that have been denied or rejected near or adjacent to the San Francisco Bay, or that there would be an increase in future proposals as a direct result of the proposed project. The project will not and cannot be "precedent setting" given that pursuant to the City of San Leandro's Zoning Code, any similar application would require discretionary review in the form of a Variance application. The findings required for approval of a Variance ensure that each project would be considered on its merits and each application would be the subject of a public hearing and review process. Personal opinions regarding the appearance of wind turbines are not a relevant consideration in the City's consideration of environmental effects of the proposed project. Speculation regarding the potential for wind turbines in other locations is not supported by facts. Further his opinion is unsupported by any photographic or other evidence including photographic evidence from relevant public views accessible to and documented by the applicant.

The statement "*There are no metropolitan areas with Wind Turbines propagated with one or many throughout the United States"* is false. San Francisco has several wind turbine installations. The San Francisco Department of Building Inspections (DBI) is currently accepting applications for small wind turbine permits. The City of San Francisco defines small wind turbines as having a rated capacity of 50 kilowatts or less. Permits for wind turbines have been prioritized by DBI as written in the revision of AB-004 which establishes guidelines for exceptions to the equal treatment of permit applicants and that permit applications for work consisting solely of wind power generation systems be given priority assignment for plan review and issuance. Another example of an urban turbine in the US is a large wind turbine (Vestas 225kW) about 350

feet away from the Cleveland Browns Stadium (seating capacity over 73,000) and about 200 feet away from the Great Lakes Science Center in Cleveland, Ohio.

17-4: See Response 17-1. No substantial evidence was provided to support Mr. Lee's claim regarding the potential impact of noise that would result from the proposed turbine.

17-5: The comment that the proposed wind turbine is "directly adjacent to homes and a natural estuary" is not correct. See Response 11 regarding the project description. A full discussion of the noise specifications and operational characteristics of the proposed turbine is included in the applicant's submittal.

17-6: No evidence was provided by Mr. Lee to support the asserted conclusions regarding the potential for risks associated with the construction and operation of a small wind turbine. The proposed turbine will be subject to all applicable building code requirements, and the City's review and approval of a building permit, and any adopted conditions of approval, which will govern its ongoing maintenance and operations and ongoing code enforcement by the City of San Leandro to ensure that the turbine operates safely and complies with City requirements. Reference to the potential success or failure of any business is speculation that isn't supported by evidence provided by the commenter. A single small wind turbine installation is unlikely to transform the parcel to which it is attached to a degree that would encumber the property with undue liability in case of bankruptcy or abandonment.

17-7: See Response 14. Also, the relative merits of cost savings and/or alternative energy saving options are not relevant to a discussion of the environmental impacts of the proposed project.

The City carefully considered Mr. Lee's comments and has determined that they do not constitute substantial evidence of a fair argument on any of the asserted impacts.

Response 18:

The ESA report, upon which the City relied in preparing the Mitigated Negative Declaration, includes references to specific studies and methods upon which this conclusion was reached. The Association and Mr. Taylor provided no credible evidence that would contradict the findings in the ESA report. Furthermore, as noted previously, there is no evidence that Mr. Taylor is an expert on biological resources, including avian species or their habitats.

Response 19:

The particulars of in-flight mating patterns of any avian species are irrelevant to the analysis of potential collisions between birds and turbines. The ESA report correctly focuses on the potential for collision of all special status species that were identified as having potential to nest, forage, or otherwise move through the vicinity of the marsh. Mitigation measures developed with the guidance of the California Department of Fish and Wildlife (CDFW) formerly the California Department of Fish and Game, were incorporated into the project to further reduce the impacts of the low potential for collisions. The Northern Harrier is not a Federal or State Threatened and/or Endangered Species, but a State Species of Special

Concern. The Department submitted no comments on the MND and no expert biological evidence has been submitted to support the Association's assertions.

Response 20:
The ESA report acknowledges the unavailability of direct comparisons to small wind turbines adjacent to the Bay, but provides information from other turbines and published results from elsewhere as the basis for the assessment of this project.

The Association has provided no evidence for their claim nor have they asserted any expert qualifications in the area of biological resources. The photos of various birds provided in the Taylor Report are illustrations and definitions that are readily available from online or other sources and provide no evidence to their existence in the vicinity of the project, nor do they demonstrate any potential significant impact that would contradict the findings of the ESA report. While it is considered an important habitat area for birds and other wildlife, and is managed by the City for the purpose of conservation and recreational use, the San Leandro Shoreline Marshlands are not a bird sanctuary. The U.S. Fish and Wildlife Service administers seven National Wildlife Refuges in the San Francisco Bay National Wildlife Refuge Complex. The roughly 30,000-acre Don Edwards San Francisco Bay National Wildlife Refuge in the South Bay is the closest of these National Wildlife Refuges to the East Bay. More information on the San Francisco Bay National Wildlife Refuge Complex can be found on the U.S. Fish and Wildlife Service website..

Under the Bird Checklists of the United States and San Francisco Bay and San Pablo Bay National Wildlife Refuges web pages of the US Department of the Interior/US Geological Survey website it states *"The San Francisco Bay is the largest estuary on the west coast of the United States. Its 1600 square miles of wetlands and open water are home to about 800,000 water birds at any given time and to millions during peak migration."* The marsh area near Heron Bay comprises a small increment (less than 1 square mile) of these approximately 1600 square miles. The Association does not provide any evidence that there could be anywhere close to '*nearly one million birds*' in the small marsh area near the Halus property. Additionally, the marsh area location is adjacent to a highly developed industrial and residential area, and not within the San Francisco Bay National Wildlife Refuge system. The Association presented no evidence that the 300 acres (actual number is 406 acres) of the San Leandro Shoreline Marshlands constitutes an area that "would be affected by the presence of the turbine". Therefore the conclusions urged by the Association are not support by fact.

More information can be found on the US Dept. of the Interior website:
http://www.npwrc.usgs.gov/resource/birds/chekbird/r1/sfbay.htm

Response 21:
The City initially circulated a Mitigated Negative Declaration and Initial Study in May 2012. The California Department of Fish and Wildlife (CDFW) responded with a letter dated June 29, 2012 wherein they commented on the proposed project and recommended adoption of certain avoidance and minimization measures. Subsequent to that date, a CDFW staff biologist Danielle Roach conducted an onsite review at the Halus property and stated in a subsequent email dated January 11, 2013 when asked if she received the revised MND *"I did receive the Recirculated MND at the Regional office sometime in October. I reviewed the document and saw that you included the measures we had spoken about in person and in phone calls, and since you will be involved in an adaptive management plan with CDFW (we have a new name now) throughout the life of this project, I did not feel that additional comments were necessary."*

All of CDFW's recommended mitigations were included in the revised and recirculated MND, which is the only MND currently under consideration. CDFW stated its satisfaction with the MND and submitted no comments or additional recommendations.

Response 22:
The updated Taylor report (page 7 & 8) makes assertions regarding potential impacts related to hazards and hazardous materials including a comment regarding the "extremely large" size of the radar signature for wind turbine blades. Mr. Taylor's résumé includes no references to training, expertise or qualifications regarding radar or airport/airplane operations, and no other evidence to qualify him as an expert on this subject. Furthermore, the City notes that consistent with Mitigation Measure 3 in the MND, the United States Federal Aviation Administration (FAA), the agency authorized to review wind turbine applications, has issued a "Determination of No Hazard to Air Navigation" on June 21, 2012 for the project, which is on file in the project materials and available for review at the City planning department during normal business hours. Moreover, in that determination, Air Traffic Control stated that the project would not have a significant adverse effect on their operations. Mr. Taylor's assertions are not supported by the facts. Further, Mr. Taylor incorrectly claims that the location of the proposed wind turbine is less than 500 feet from the nearest Heron Bay residence. All Heron Bay residences are in excess of 500 feet from the proposed turbine location.

The FAA imposed no conditions on the project in their determination. However, the FAA will require a Notice of Actual Construction or Alteration be completed and returned to their office should the project be abandoned or within 5 days after the construction reaches its greatest height as a routine matter. The FAA required no marking or lighting for the turbine given its proposed location and relatively low height.

An example of a wind turbine in similar proximity to an airport is a turbine that Halus supplied to the Cuyahoga County Fairgrounds, located only 3.7 miles from the Cleveland Hopkins International Airport in Cleveland, Ohio. Additionally, that turbine is much larger than the proposed turbine and is a 500kW unit on a 60-meter (197 feet) tower. The total

height of the Cuyahoga County Fairgrounds wind turbine is 2.5 times taller than the proposed project at over 265 feet versus 100 feet for the proposed wind turbine.

Another example (still from the Halus client list) is a wind turbine supplied by Halus Power Systems to Pearl Road Auto in Cleveland, which is 6.9 miles from the Cleveland Hopkins International Airport in Cleveland, Ohio. This 175 foot tall turbine is also much taller than the proposed turbine. The Halus Power Systems property is 7.82 miles from the Oakland International Airport. The existence or absence of a public benefit is not determinative of a significant impact under CEQA.

Response 23:
The proposed project is consistent with all applicable noise standards and requirements of the City of San Leandro. No evidence was provided to support the Association's claims regarding the potential impact of noise that would result from the proposed turbine, and nothing in Mr. Taylor's résumé shows any expertise in acoustics. San Leandro land use policies address noise impacts and restrict noise levels at property boundaries. San Leandro General Plan Chapter 6 contains a Noise section on pages 6-16 to 6-27 and 6-43 to 6-45. Table 6-1 on page 6-23 has the Noise Compatibility Standards for San Leandro Land Uses and addresses noise impacts and restricts Exterior Noise Exposure for Industrial and Manufacturing land within 500 feet of a residentially zoned area to 65 dBA. As noted in the MND, potential noise levels are expected to be well below this threshold. The project noise specifications provide information that was intended to be conservative by providing noise level data related to a much larger turbine (Vestas 225kW model) than the one proposed (Vestas 50kW). The smaller turbine will generate even lower sound levels. The evidence in the record and reasonable inferences from it show that the proposed turbine will not exceed 55dBA at the Halus property boundary line nearest the Heron Bay Homes, or any part of the property boundary line, and therefore its noise effects are well within the City's noise standard policies. The record supports the MND conclusions on the potential noise impacts; no substantial evidence has been submitted showing a fair argument on this subject.

Responses to Taylor Report

Mr. Paul Taylor of Paul Taylor Consulting submitted an extensive letter dated November 9, 2012 (referred to above as the Taylor Report and attached hereto as part of Appendix 1) in response to the Mitigated Negative Declaration. In addition to Responses 1 through Response 23, the following responses address the comments provided in the Taylor Report that have not already been addressed.

Response 24:
Mr. Taylor's description overstates the actual size and dimensions of the proposed turbine tower, effectively doubling them. The turbine tower dimensions are approximately 6 foot at the base and 3 feet at the top. His description is not supported by fact. The proposed small wind turbine is approximately 20 feet shorter than the nearby existing PG&E power lines and is narrower in profile. The PG&E power line towers are approximately 16 feet at the base.

Response 25:
See Response 1. Based upon the review of the application, the MND, the comments and these responses and the other documentation in the record, the City has concluded that a Mitigated Negative Declaration is appropriate as there is no substantial evidence in light of the whole record that the project, as revised, may have a significant effect on the environment.

The comment grievously misstates the nature and role of MNDs under CEQA, describing them as a short cut designed to avoid an EIR. Mitigation Negative Declarations are a well-established, long-standing process under CEQA. The City's MND complies with all applicable substantive and procedural requirements for MNDs as set forth in CEQA and the CEQA Guidelines. Information about the potential impacts of the project was disclosed through the MND and circulated for public review and comment. In this case, the City went beyond CEQA requirements, and prepared responses to comments on the MND. The environmental analysis and information on the project will be considered at a public hearing, in full compliance with CEQA and the City zoning ordinance.

Response 26:
There are no authorized public trails along the southern boundary of the Heron Bay properties. The Association of Bay Area Governments website displays the official Bay Trail map of the East Bay (attached hereto as Appendix 3, Excerpt from San Francisco Bay Trail East Bay Map), and shows the Grant Avenue parking lot access to the Bay Trail. This parking lot is also shown in several of the photo simulations submitted with the application and included in the MND. Photo 1 is taken from the Grant Avenue parking lot access to the Bay Trail. Photo 2 is taken walking north from the parking lot along the Bay Trail and the existing junk yard property and PG&E power lines are visible in the photo to the east. Photo 3 is taken as the Bay Trail turns roughly 90 degrees to the west towards and along the PG&E substation and towards the Bay. The Bay Trail does not continue eastbound along the San Lorenzo Flood Canal between the Heron Bay and Halus properties. There are no current or future planned Bay Trail extensions on either side of the San Lorenzo Creek at any point between the Heron Bay property and the Halus Power Systems property, and no authorized public use of this county flood control area. The Bay Trail is a planned recreational corridor that, when complete, will encircle San Francisco and San Pablo Bays with a continuous 500-mile network of bicycling and hiking trails. More information and Trail maps can be found at www.baytrail.org. No part of the Bay Trail adjoins the Halus property; the property is easterly of the trail away from the marshes and bay waters.

Response 27:
The existence or absence of wind turbine siting criteria is not a concern under CEQA.

Response 28:
Comment noted. No evidence has been provided by Mr. Taylor to indicate that the proposed project would result in any habitat degradation nor has Mr. Taylor established any expertise on the subject. See Response 1.

Response 29:
The Association has provided no evidence to support a conclusion that these impacts would result in contradiction of ESA's findings. The ESA report considers the effects of the location and operation of the proposed turbine as a central focus of the analysis, including the height, power rating, and rotor sweep area. It specifically considered the potential effects of the turbine on birds with different flight characteristics, and evaluated the risk of nest or home range abandonment in the context of other pre-existing sources of disturbance in the vicinity, such as transmission line towers, recreational trail use, and off-leash dogs.

Response 30:
As stated in Response 27, the existence or absence of wind turbine siting criteria is not a concern under CEQA. However, the 500 feet setback requirement proposed by Mr. Taylor will be met under the proposed project, as the turbine would be located a minimum of 500 feet from any residence.

Response 31:
The application submittal materials identify a number of significant public benefits that would result from the proposed project. Those public benefits include local green/high tech jobs, research and development investment that creates local revenues, and compliance with state and local mandated policies which promote green / wind energy projects to reduce greenhouse gasses, reduce dependence on foreign energy sources and reduce the overall consumption of fossil fuels. In any case, public benefits, or lack thereof is not determinative of a significant impact under CEQA.

B. Individual Comment Letters
The persons listed below submitted individual comment letters. The individual letters have been annotated to direct the reader to the appropriate responses above.

1. John and family
2. Qui Chau
3. Rose Ng
4. Wenqiang Ye and family
5. Mrs. Wong
6. Jenny Chen
7. Stephanie L'Archuleta
8. Ms. Min Mei Huang, Mr. Jiming Duan, Ms. Jennifer Duan
9. Hong Dalisay
10. Rod Harryman
11. Frederick and Kimmerly Simon
12. Roland Phillips
13. Misha Wyatt
14. Carlos P. Ocampo
15. Mary Lavodnas
16. Tony Ferreira
17. Enkargian Arslan
18. Katherine Lan
19. Mitch Huitema
20. Howard Kerr

Section II: Conclusion

This Response to Comments document fully illustrates that, despite the number of comments provided by the public as part of the review of the Mitigated Negative Declaration, the project is one that is fully compliant with all requirements of the City, the FAA and the State Department of Fish and Wildlife. The proposed use is permitted and complies with all applicable zoning standards, with the exception of its height which is the subject of the variance request. The project will not conflict with any scenic vista, nor will it have any significant impacts to public views. Contrary to the many erroneous statements by the Heron Bay Association and their consultant, Paul Taylor, the proposed project is located easterly of the shoreline so that the proposed turbine would be ***behind*** any person taking in the view of the Bay Further, as stated above, the project site is an industrial property zoned by the City's to allow the most intensive industrial land uses.

The City of San Leandro in its preparation of a MND has conclusively determined that the proposed project, with the incorporation of the mitigation measures agreed to by the applicant, clearly will not have a significant effect on the environment and that no substantial evidence in the light of the whole record has been presented to the City that the proposed project may have a significant effect on the environment.

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Attorneys for
HERON BAY HOMEOWNERS ASSOCIATION

Electronic version received yesterday, November 13, 2012
EP

CITY OF SAN LEANDRO

COMMUNITY DEVELOPMENT DEPARTMENT

PLANNING DIVISION

IN RE:

THE CITY OF SAN LEANDRO'S PROPOSED INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR HALUS POWER SYSTEMS WIND TURBINE AT 2539 GRANT AVENUE, SAN LEANDRO, CALIFORNIA 94579

AMENDED PUBLIC COMMENTS OF HERON BAY HOMEOWNERS ASSOCIATION AND INDIVIDUAL OWNERS/MEMBERS OF HERON BAY HOMEOWNERS ASSOCIATION IN OPPOSITION OF THE CITY OF SAN LEANDRO'S INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR HALUS POWER SYSTEMS WIND TURBINE LOCATED AT 2539 GRANT AVENUE, WITHIN THE CITY OF SAN LEANDRO.

BZA Hearing Date: Dec. 6, 2012

The following comments and legal argument is being submitted on behalf of the Heron Bay Homeowners Association and individual owners/members of the Association in opposition to the City of San Leandro's published Intent to Approve a Mitigated Negative Declaration for a Halus Power Systems Proposed Wind Turbine to be located at 2539 Grant Avenue, San Leandro,

California. For all future reference in this document, the Heron Bay Homeowners Association and individual owners/members of the Association will be referred to as "the Association," the City of San Leandro will be referred to as "the City" and Halus Power Systems will be referred to as "Halus" unless otherwise stated. The Heron Bay Homeowners Association previously filed on July 31, 2012, a document entitled "Public Comments of Heron Bay Homeowners Association and Individual Owners/Members of Heron Bay Homeowners Association in Opposition of the City of San Leandro's Intent to Adopt a Mitigated Negative Declaration for Halus Power Systems Wind Turbine Located at 2539 Grant Avenue within the City of San Leandro." Attached to that submittal and made a part thereof by reference was an expert report and opinion by Mr. Paul Taylor of Paul Taylor Consulting. Mr. Taylor is a renowned environmental scientist and CEQA specialist. That document was previously referred to as "the Taylor report."

Subsequent to the filing of the earlier public comments of the Association, the City continued the then scheduled public BZA hearing several times without stating a reason for the continuances. Said continuances were apparently for the purpose of allowing Halus to file an amended or supplemental filing supporting their argument for approval of the MND proposed by the City. Halus has since filed amended documents and the public hearing by the Board is now scheduled for December 6, 2012. Unfortunately, Halus and the City did not see fit to use the several months granted them by virtue of the unexplained continuances to prepare and file an Environmental Impact Report (EIR) as demanded by California statutes and the Heron Bay Association, but rather used their time to attempt to address the shortcomings in the original City findings and Halus submittals as pointed out by the Taylor report. The amended filings and the City's stated intention to approve the MND are still woefully deficient and fail to satisfy the legal standards demanded by the California Environmental Quality Act and cited case law. The simple fact of the matter is that nothing short of a full EIR will suffice and the residents of Heron Bay and the people of the City of San Leandro deserve no less that full compliance.

The Association has again asked Mr. Paul Taylor of Paul Taylor Consulting to review and

comment on all of the filings by Halus and the City's response to same. A copy of his report is dated November 9, 2012 and is entitled "Updated Halus Wind Turbine Negative Declaration Analysis Review." A true copy of that report is marked as Exhibit A to these comments and made a part hereof by reference as if fully set forth herein. Heron Bay Homeowners Association submits their Amended Comments and the Amended Paul Taylor report, their original Comments filed on July 31, 2012 and the original Paul Taylor report attached thereto and such oral comments as may be presented at the hearing on December 6, 2012 in support of their opposition to the City's intention to accept a MND. To make it perfectly clear, the Association absolutely objects to any approval of the MND and demands that the BZA and the City of San Leandro order Halus to prepare and submit a full EIR in compliance with California statute and case law.

I. Preliminary statement.

The Association is comprised of 629 homes (451 single family homes and 178 shared court homes) located entirely in the City of San Leandro. The Association's homes are the northern neighbors to the industrial complex and storage yard maintained by the Petitioner Halus Power Systems. The proposed wind turbine is proposed to be located at the northern boundary of the Halus Power Systems property and the southern boundary of Association homes. Prior to this period of public comment, the City of San Leandro notified 4-6 homes located closest to the proposed project of the City's intent to allow a mitigated negative declaration. This notice met the minimum requirements of State law but certainly did not meet nor satisfy the needs and interests of the Association and its many members and owners. A public hearing of interested Association members called by the Board of Directors of Heron Bay was held in June 2012. The Board of Directors of the Association attended that open forum meeting along with representatives of the City of San Leandro Department of Development Services, a representative of the City Council and the owner of Halus Power Systems. Subsequent to this meeting, the City notified the Association that the time to file public comments in objection to the intent to adopt a Mitigated Negative Declaration had been extended to July 31, 2012. The

Association, and several interested homeowners, filed their opposition comments to the proposed City action in a timely fashion, notwithstanding their objection to the City's denial of their request for a 120-day continuance. Subsequent to July 31st, the City continued the Board hearing several times without stating any reason for that action. Apparently said continuances were at the bequest of Halus in order to allow them to file amended documents responsive to the criticism contained in the Heron Bay HOA opposition. Subsequent to the amended filings by Halus, the City has continued with their intent to allow the MND and has reset the public hearing before the BZA for December 6, 2012. The Association, having once again been denied a request for an additional 30-days to file their opposition comments, notwithstanding that Halus was given more than four months to file additional documentation, files these comments in opposition to the proposed MND. To be perfectly clear, the Association and its owner/members continue to strongly object to the proposed adopted of a mitigated negative declaration and will take this matter to the City Council and the appropriate Courts should this MND be approved. The Association demands that an EIR be required for this project.

II. Procedural Standards of Review.

In its earlier comments, the Association stated the procedural standards for review. However, since Halus has failed to file an EIR and the City has failed to demand an EIR, we restate the very clear legal requirement for the EIR at length herein for the convenience of the Board and the City. The purpose of the Association's comments is to insure that the City does not allow this ill-conceived project to proceed forward on the basis of a Mitigated Negative Declaration. A brief history of the CEQA requirements as it relates to this project are identified in the amended Taylor report at page 1-3 and those statements are incorporated herein. Section 21064.5 of the California Public Resources Code (the California Environmental Quality Act) sets the standards for the use of a Mitigated Negative Declaration. That section states: " 'Mitigated negative declaration' means a negative declaration prepared for a project when the initial study has identified potentially significant effects of the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative

declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment."

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The significant language in this section is the following language "... would avoid the effects or mitigate the effects to a point where **clearly no significant effect** on the environment would occur..." (emphasis added), and "there is **no substantial evidence** in light of the whole record before the public agency..." (emphasis added). Based on the language of this operative statute and the uncontroverted case law interpreting it, the comments of the Association and the scientific evidence presented by the Taylor report, it is clear that the Mitigated Negative Declaration should not be adopted by the City of San Leandro.

The landmark case of Ocean View Estates Homeowners Association, Inc. v. Montecito Water District (2004) 116 Cal.App.4th 396, 10 Cal.Rptr.3d 451 directly dictates the path that the City should follow in the Halus application. In Ocean View a homeowners association filed a petition for a writ of mandate to compel a water district to prepare an environmental impact report for a project to cover a reservoir with an aluminum roof. The district found that there was a potential significance to the environment from flooding but the district found no significant aesthetic impact. The district did not order an EIR based on their "checklist" and findings but rather allowed the project to go forward with a Mitigated Negative Declaration (hereinafter referred to as "a MND" unless otherwise stated). After the district and the trial court denied the HOA petition, the Court of Appeal reversed and ordered the district to order a full EIR.

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The court stated that an EIR provides detailed information about the likely effect a proposed project may have on the environment, lists ways in which significant effects might be minimized and indicates alternatives to the project (Public Resources Code, section 21061). An EIR is required whenever there is a "fair argument" that significant impacts may occur." So the standard to be imposed by the City, as defined by the courts, is whether or not a **fair argument** has been presented that would indicate that significant impacts might occur. It is not necessary

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that interested parties demanding an EIR prove conclusively, beyond a reasonable doubt or even by a preponderance of the evidence that significant impacts may occur. It is only necessary that the interested party make a fair argument that there could be significant impacts. It is then the function of the EIR to determine if whether or not there are significant environmental impacts. (See also Quail Botanical Gardens Foundation, Inc. v. City of Encinitas (1994) 29 Cal.App.4th 1597, 1602, 35 Cal.Rptr.2d 470). The comments and facts as stated by the Association and in the original and in the amended Taylor report clearly constitute a fair argument and the City must order the EIR in order to determine the full impact of the environmental impact. The Ocean View case is particularly significant because it argues the danger of granting a MND in cases where a fair argument has been presented. The court stated: **"Because a negative declaration ends environmental review, the fair argument test provides a low threshold for requiring an EIR."** The City may not conclude that the low threshold has not been attained in the present case. Ocean View also stood for the proposition that evidence may be presented that would suggest that a project might have a **significant negative aesthetic impact**. One of the questions then would be would the project have a substantial adverse affect on a scenic vista. A review of Figure 1 attached to the updated Taylor report, Exhibit A, clearly indicates that the presence of the wind turbine would seriously compromise, if not destroy, the pristine scenic views of the protected east marsh and the San Lorenzo creek. One can stand on the corner of the Southwest corner of Heron Bay, in the closest location to the proposed turbine, and easily view the bay waters and it takes no great imagination to see that the turbine will constitute an eyesore. One that damages the near perfect scenic view of the marsh, the creek and the bay. These considerations alone would dictate the preparation of an EIR. It may be argued by the applicant that opinions of homeowners do not constitute scientific evidence. The Ocean View case eliminated this argument by stating, " Opinions that the cover will not be aesthetically pleasing is not the special purview of experts. Personal observations on these nontechnical issues can constitute substantial evidence."

The case of Bakersfield Citizens for Local Control v. City of Bakersfield (Panama 99

Properties) (2004) 124 Cal.App.4th 1184 also confirmed the substantial evidence standard. It stated that " substantial evidence is defined as enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." In other words using the fair argument standard, an EIR should be ordered even if the ultimate conclusion is that there are not significant environmental impacts if substantial evidence is presented that would dictate that an EIR be required. The Bakersfield case also discussed and approved the concept of urban decay in considering whether or not to require an EIR and it also allowed individuals to present evidence obtained from their own personal knowledge.

The case of The Pocket Protectors v. City of Sacramento (Regis Homes of Northern Cal., Inc.) (2004) 124 Cal.App.4th 903 involved a project submitted on a MND. In this case the court discussed the principles and purpose of CEQA. The court stated: "The foremost principle under CEQA is that the Legislature intended the act to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language... We have repeatedly recognized that the EIR is the heart of CEQA." The court also affirmed that public participation is an essential part of the CEQA process. The court reaffirmed "With certain limited exceptions, a public agency must prepare an EIR whenever substantial evidence supports a fair argument that a proposed project may have a significant effect on the environment... Significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment." The Pocket Protector case also affirmed that a "The fair argument standard is a 'low threshold' test for requiring the preparation of an EIR." In the Halus matter, clearly the original and amended Taylor report and the comments and observations of the Association meet any low threshold requirement for requiring an EIR. This court also confirmed "relevant personal observations of area residents on nontechnical subjects may qualify as substantial evidence for a fair argument. So might expert opinion if supported by facts, even if not based on specific observations as to the site under review... Where such expert opinions clash, an EIR should be done." Under the authority of this case, even if the applicant

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produces evidence of no environmental impact, which Halus has not successfully done, the report of Paul Taylor alone should demand an EIR, even if the expert opinions clash. In this regard the court said: "It is the function of the EIR, not a negative declaration, to resolve conflicting claims, based on substantial evidence, as to the environmental effects of a project." This is another case that confirmed the rule that non-technical, area resident's opinions should be considered on aesthetic issues. The court stated: "As on other CEQA topics, the opinions of area residents, if based on direct observation, may be relevant as to aesthetic impact and may constitute substantial evidence in support of a fair argument; no special expertise is required on this topic." Therefore on the topic of aesthetics, the opinions of the Association and local residents must be considered in additional to the opinions expressed in the original and updated Taylor reports.

The case of Architectural Heritage Assn. v. County of Monterey (2004) 122 Cal.App.4th 1095 was a challenge to the adoption of a MND by the County who wanted to tear down the old Monterey courthouse. The court stood for the proposition that CEQA embodies the state's policy that the long-term protection of the environment shall be the guiding criterion in all public decisions. **The court cited the California Supreme Court in recognizing that the Court has repeatedly recognized that the EIR is the heart of the CEQA.** Accomplishment of the high objectives of that act requires the preparation of an EIR whenever it can be fairly argued on the basis of substantial evidence that the project may have significant environmental impact. The Supreme Court stressed the importance of preparing an EIR in cases in which the determination of a project's environmental effect turns upon the resolution of controversial issues of fact and forms the subject of intense public concern. It is hard to imagine more intense public concern than the City's expressed intention to approve a MND has caused.

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Finally, the case of Sierra Club v. California Dept. of Forestry & Fire Protection (2007) 150 Cal.App.4th 370, 59 Cal.Rptr.3d 9 establishes the fact that great weight is to be given to expert testimony in evaluating the fair argument standard to be used. Under the guidelines of this case, therefore, great weight must be given to the opinions of Paul Taylor, one of the

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recognized experts in the field of environmental protection. In support of Paul Taylor's expertise, the Association marks as Exhibit B to these comments the curriculum vitae of Mr. Taylor, and makes it a part hereof by reference as if set forth at length herein. A review of Mr. Taylor's CV highlights his educational and professional experience and his preeminence in the field of environmental protection.

III. Specific Issues of Environmental Concern.

The Association specifically adopts all of the comments and recommendations contained in the updated Taylor report, Exhibit A to this document. The following represent specific highlights of that report on which the Association would comment.

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A. Aesthetics. As the Taylor report discusses on page 3, the City finds less than significant impact on scenic vistas because of the existing adjacent industrial uses and zoning. Also because the turbine is similar or less height than existing PG&E high tension wires. Apparently the City is influenced by the additional filings of Halus including 11 photo-shopped views into the project site. Unfortunately, the subject photos simulations are all taken from public trail and bay views. None of them are taken from the home sites of the approximately 25 homes that would be directly affected by the proposed wind turbine. As stated in the updated Taylor report, the size, scale, format and perspective of the photo simulations are inadequate to afford any fair or independent analysis of the project impacts to scenic vistas or existing visual character or quality. This analysis completely ignores the obvious scenic visual impact of the turbine on the homes of Heron Bay that are directly across from the turbine, the impact on the protected area of the east marsh and the San Lorenzo creek and its relationship to San Francisco bay. In analyzing the impact on vistas, one cannot picture themselves in the actual projected site, admittedly industrial, and ignore the areas on the immediate and adjacent vicinity. As stated as many as 25 homes in the Association would have a direct and unimpeded view of the turbine from their back yards and rear windows. The approximately 300 acres of marsh and creek have been protected and cherished for a long time. To place the turbine in the proposed location would have it be the centerpiece and the eyesore of the entire area surrounding the east marsh. It

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would be the first thing anyone's eye would travel to as there are no other turbines in the area or, for that matter, surrounding any city or county touching the San Francisco bay. The impact of this 100-foot turbine in the middle of the beautiful, protected areas of the bay and marsh cannot be underemphasized. To ignore that consideration demonstrates the flawed concept of granting the MND. It is unfair to compare the turbine to the existing PG&E power lines as the power lines predated the development of the Association and the protected marsh areas. High power wires are common throughout the bay area and offer no shock or surprise to any resident. One would question, however, if power lines were planned to be installed at this time if they would be approved. It is highly doubtful. But Halus should not be allowed to rely on what is already on site; rather the merits of their proposal must be evaluated on its own environmental impact.

As the updated Taylor report points out there are no similarities in visual aesthetic impact in the PG&E tower profiles, aerial mechanization, moving member distractions or scenic vista intrusion. The proposed turbine has a 2000 square foot sweep area. As Taylor states, this would have the same effect as a Cessna Citation 500 spinning like a pinwheel at the top of a 100 foot tower less than 500 feet from homes in the Association and directly adjacent to the protected marsh areas. The public trails and parks form an integral part of the unique Bay Trial, East Bay recreation system which has provided hiking, jogging, bicycling, skating opportunities and the observation of more than 100 species of migrating birds since 1989. To conclude that the presence of a 100 square foot turbine essentially in the middle of such protected areas would be tragic at best. It is interesting to note that no 100-foot horizontal axis, tubular towers or wind turbines have been previously allowed within any scenic vistas of the Bay Trail. To allow this 100-foot aerial advertising tower would be to start a precedent that will not be easily reversed.

The City must consider Taylor's conclusion that the turbine may create a potentially significant impact to occupied, off-site structures due to daytime shadow casting effects. It is well established that towers of this height and size may create "shadow flickering" that may substantially affect the use and enjoyment of the owners of the adjacent homes. Certainly under the cases cited, the City must at least order an EIR that would investigate the potential of

environmental impact of this variety. The City must conduct a wind project shadow impact assessment as part of an EIR. The City must demand an independent Visual Impact Analysis using computer simulations on current color photos showing the proposed turbine in its location at scale from various points of view among the adjoining Heron Bay homes and the Bay Trails.

It is important to note that other jurisdictions have adopted ordinances recognizing the effects of shadowing on the environment. The City of San Francisco has adopted an ordinance prohibiting new structures over 40 feet in height from casting shadows over public open space. Certainly the City of San Leandro should not adopt a de-facto policy that would be less restrictive than that of San Francisco, a city famous for protecting its scenic vistas. The Association urges the City to adopt a " wind turbine siting criteria" rather than approve this particular turbine without sufficient study, thereby setting a dangerous and permanent precedent.

The Association is aware that Benny Lee, the president of the Heron Bay Homeowners Association, has independently sent written comments listing six separate concerns that he has with the proposed project. The Association hereby incorporates and adopts each and every point raised by Mr. Lee in his comments. On this particular subject, the Association specifically adopts Mr. Lee's points number 3 and 4. As Mr. Lee points out, allowing this installation will single out the community as allowing the first turbine on the bay shoreline. It can only lead to a slippery slope of ugliness and uncontrolled and unwarranted development on some of the most cherished areas of the bay lands. The project will clearly add environmental insult and injury to Heron Bay homeowners, their property values and family enjoyment. The City should and must require an EIR to fully consider all of these potentially damaging areas.

B. Biological Resources. The Association adopts the findings of Paul Taylor, Exhibit A, pages 5-6 in reference to biological resources. A project may impact biological resources through the loss or destruction of individual bird species or through the degradation of sensitive habitats. Anyone who has ever walked the public trails or visited the protected area in question has to be aware of the extent and variety of migrating birds and other native birds in the areas of the marshes, in the direct proximity of the proposed project. The City finds that an

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Environmental Sciences Associates (ESA) memorandum concludes that the risk of bird fatalities from a single wind turbine is not statistically significant. The Association would note that the loss of a single bird habitat due to an unnecessary project that serves no useful purpose other than advertising for the applicant is too many. Taylor notes that the aerial twisting, spinning and noise from a wind turbine will disturb and alter avian flight patterns and nesting habits in proximity to the project. The ESA report makes no mention of the nearly one million birds that rest and nest in the 300 acres of marsh land that would be affected by the presence of the turbine. The ESA report does not mention the in-flight mating patterns of the California Least Tern, a federal and state endangered species. It does not mention the Northern Harrier's in flight exchange of prey with their mates, also a protected species. It does not address impact on the Western Burrowing Owl that flies in circular patterns and engages in in-flight courtship. The ESA report admits that it does not have enough evidence or research on migration or mating patterns to objectively address this issue. There is no explanation how they arrived at the artificially low figure of 1 bird killed every 6 ½ years but such an estimate would strain credibility. The City cannot compare any other area in California to the largest bird wildlife habitat in the East Bay. The bird mortality estimates do not apply to the presence of a wind turbine next to a bird sanctuary. Pictures of all of the above species, which may be dramatically affected by the proposed turbine, are again attached as group Exhibit C to these comments, made a part hereof by reference and incorporated herein. The photos constitute a small percentage of the bird species that may be affected by the proposed turbine.

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The City Mitigation Measures are not fully consistent with the June 29, 2012 California Department of Fish and Game's letter mitigations. It is inconceivable that the City would allow this project without a strict compliance with the clear directives of the Department of Fish and Game. It is further inconceivable that the City would allow this project to move forward without an EIR investigation of the effect of the project at least on these specific species. Remember the legal standard is a fair argument. The Association does not have to prove that these species will be involved, just that there is evidence that they could be affected. This fact alone should

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generate an order for an EIR.

C. Geology/Soils. The Association adopts the comments contained in the updated Taylor report, Exhibit A, pages 6-7, in this section as their own and offers no additional comments.

D. Hazards & Hazardous Materials. The Association adopts the comments contained in the updated Taylor report, Exhibit A, pages 7-8, in this section. As contained in the Taylor report, research has demonstrated that wind turbine blades have an extremely large radar signature that can disrupt aircraft navigational radar. As the Heron Bay project lies in close proximity to Oakland International Airport, this finding presents a clear and present danger to the residents and should be investigated and included as part of an EIR. As stated by Mr. Taylor, "the City must acknowledge and address potential added aircraft navigational radar impacts of the proposed Halus Wind Turbine Project where no public benefits are provided." There is little doubt that should an air catastrophe occur, and should disaster be traced back to interference from the proposed wind turbine, that the City would be liable for all resultant damages as the result of their refusal to demand a full EIR pursuant to state law. Can anyone from the City or from Halus name any other wind turbine currently in use or under construction in similar proximity to an active, international airport? We sincerely doubt that they could so demonstrate. There is also no argument to the point that this turbine will provide any public benefit. This project benefits exactly no one in the City of San Leandro other than Halus.

E. Noise. The Association adopts the comments contained in the updated Taylor report, Exhibit A, pages 9-10, in this section. The comments in the Taylor report relative to noise intrusion are technical and clearly qualify as fair argument under the standards of the cases cited in this brief. In summary Taylor states that horizontal axis wind turbines generate significant noise and vibration. There is no City acoustical analysis that would show noise or vibration impact levels inside the homes closest in proximity to the turbine. Furthermore there are no City studies that would evaluate the resultant noise impact on the trails or marsh areas. The Halus provided manufacturer's noise specifications dated November 1996, more than 16

years old, are neither current nor relevant to the Halus-modified wind turbine. The Association demands that as part of an EIR that a computer analysis be performed per Community Noise Equivalent Levels (CNEL) or County noise ordinance compliance standards. The study should provide project noise levels at adjacent residential and recreational receptors from a computer modeling of sound in decibels. Noise contours at 5 dBA levels should be plotted over a scaled site plan or aerial photo capturing the locations of the turbine noise source and proximate residential and recreational receptors. As stated by Mr. Taylor, a common limit, adopted by other jurisdictions, for significant wind turbine noise impacts to adjacent residential land use is an increase of 10 dBA above existing ambient residential noise levels. For the City to proceed with the MND in spite of the criteria and specifications set by other relevant jurisdictions pertaining to noise intrusion, without a scintilla of supporting scientific evidence, flies in the face of the California code.

F. Property Values and Economic Hardship. All studies of wind turbines as they relate to property values indicate that property values will decline for both permanent and temporary periods. Any individual looking to purchase a home in the Heron Bay area would be immediately impacted by the presence of a ten-story wind turbine in their back yards. Such a presence could only cause further stress and hardship on the residents of San Leandro, both in potential sales and in the refinancing of their homes. The City has the duty and obligation to protect the resident's property values as best they can. It would be unconscionable for the City to ignore potential property value impact on its residents in order to satisfy the advertising needs of one two year old business owner. An EIR must be ordered to include a property value evaluation. Declining property values can lead to the abandonment of homes, decline in upkeep, the presence of squatters and accompanying crime. This type of urban decay has a domino effect on all surrounding properties. The lowering of property values, and the concurrent abandonment of homes, as the result of an unsightly wind turbine, can certainly lead to urban blight and this phenomenon should be studied. The residents of Heron Bay, particularly those 25 homes facing the proposed Halus project, have already accepted that their property values may be affected by

17-1

the presence of the referred to electrical power lines and the adjacent industrial area. They have accepted those facts and have built that realization into their economic decisions to purchase their homes where located. However, it is abundantly clear that the presence of the 100-foot turbine will significantly, adversely affect those home values. A potential buyer could not help but notice the presence of a singular, large turbine within a few hundred feet of the subject homes. One might look across the channel and not notice the power lines, which are a common occurrence in the bay area, but no potential buyer could fail to notice and comment on the presence of the 100-foot turbine. No one could rationally state that the presence of such a mechanical eyesore would serve to increase the property values. The negative impact is clear to all.

17-1

G. Risk of Failure and Abandonment. As stated succinctly by Mr. Lee in his comments, the City has no specific policy and no experience in evaluating the seismic and wind load risks of a free standing ten story wind turbine in an area of bay fill. Failures could well include fires, explosions and rotating blades breaking loose from the podium structure and falling more than ten stories. Certainly, at the very minimum, an EIR should establish failsafe procedures that would be in effect for all of the above potential disasters. There also appears to be no plan in effect in the event that Halus would abandon the project and the site or file bankruptcy. This risk has certainly become more obvious is recent times as evidenced by the Solyndra disaster. In this event of bankruptcy or abandonment, the site would be burdened with a decaying and unmaintained wind turbine which would pose a direct danger to the residents and the surrounding areas. As a bankrupt corporation would have no incentive to remove or even maintain the turbine, the City should require a deposit or fund from Halus that could be used to remove the turbine in the event of abandonment.

17-6

IV. Conclusion.

The Association urges the City of San Leandro to abandon their intention to grant approval of this project and a code variance based on a Mitigated Negative Declaration. The entire premise of the project, i.e., that it is green, is misplaced. While it is admirable that the City

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strives to be more "green" and encourages green projects, the proposed wind turbine hardly satisfies that purpose. The amount of power allegedly generated by this one, used, old technology turbine serves only Halus. They would save less than $1,000 in power usage and yet may cause untold amount of damage to the environment and surrounding areas. The sad fact of the matter is that this project has very little to do with being green. The real purpose of the project is to provide advertising of the Halus product to any interested customers. We are quite sure that it would be advantageous to Halus to be able to take a customer into their back yard and show them a working wind turbine made from used, recycled parts rather than drive them to Suisun City or wherever else they have a similar product in operation. The proposed project is nothing more than aerial advertising. No power generated by this turbine will ever be sold to the electrical grid because the output would be insignificant. The only "green" consideration of this proposed turbine is that Halus is a company marketing a green product. This, in itself, does not make the proposed turbine green. Would the City then allow any other industrial business in the area to erect their own ten-story turbine? Doubtful. Would the City allow a ten-story moving parts billboard for advertisement of a green business? Doubtful. Any yet that is exactly what is being proposed. However, the residents of Heron Bay and the surrounding areas and the residents of greater San Leandro who use and respect the protected marsh and habitat areas should not suffer for the corporate benefit of one business. Any type of risk analysis would clearly demonstrate the folly of such a venture.

Heron Bay has clearly demonstrated a fair argument for an EIR in the above and in the comments of its owner/members. The City already allowed Halus an additional four months, after the opposition filed by Heron Bay and its residents, to file additional documents in support of their application. During that time they could have produced an EIR or at least agreed to prepare an EIR. Instead they manipulated the information previously presented with no new scientific evidence or sustainable support for the variance. For the City to ignore the fair arguments raised, not order an EIR and proceed with a MND will result in an almost sure reversal by the courts and will involve the City in prolonged and expensive litigation. The body

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of California law almost universally calls for action on the side of caution, that is, the insistence on an EIR in all questionable cases. Heron Bay has met the standard set by numerous cases and the City should and must reverse their intent to proceed on a Mitigated Negative Declaration. An EIR must be ordered before the Halus project may continue.

Dated: Nov. 13, 2012

LAW OFFICES OF A. ALAN BERGER

A. ALAN BERGER, Attorney for Heron Bay Homeowners Association

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Taylor Report

EXHIBIT A

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November 9, 2012 Update

Updated
Halus Wind Turbine Mitigated Negative Declaration Analysis Report

Introduction

Paul Taylor Consulting (PTC) environmental science and regulatory consulting has been engaged by the Heron Bay Homeowners Association (HOA) in San Leandro, California to analyze a revised October 11, 2012 *Mitigated Negative Declaration* (MND) prepared by the City of San Leandro Planning Department (City) as Project PLN2012-00006 pursuant to the California Environmental Quality Act (*Public Resources Code Section 21000 et seq.* and CEQA Guidelines *California Code of Regulations Section 15000 et seq.*). As CEQA Lead Agency, the City supports the revised MND findings with a CEQA *Initial Study Checklist* dated October 11, 2012, Halus and their ESA Consultant's May 10, 2012 *Technical Memorandum* concerning wind turbine impacts to birds, ESA's Sept. 20, 2012 *Technical Memorandum* evaluating wind turbine shadows, Halus' Nov. 28, 1996 Vestas Model V29 wind turbine noise specifications, March 12, 2012 Project site plans and Oct. 10, 2012 photo simulations, a June 21, 2012 Federal Aviation Administration "determination" letter, as well as various Federal, State, County and City environmental regulatory requirements, and City staff determinations.

2

PTC relies upon current, reputable scientific references and published environmental science research, recent and direct Project site reconnaissance and City CEQA Lead Agency policies, practices and work products. PTC's task is to analyze the technical accuracy, adequacy and specific scientific bases for findings and conclusions in the City's MND and related records for the Project. PTC will report CEQA/MND errors, omissions, inaccuracies, speculation and inconsistencies. PTC will recommend additional scientific investigations, issues resolutions and precedent wind turbine siting criteria. PTC will also amplify HOA and public recreational stakeholder concerns, and rebut City findings where appropriate.

Project Description

Halus Power Systems, a San Leandro supplier of re-manufactured wind turbines, has applied to the City of San Leandro for a Zoning Variance to exceed the 60 foot height limit on their industrial property allowing an 80-foot tall (100 feet to the full blade sweep height), single, 50 kilowatt horizontal axis wind turbine electric power generator to be located on their property at 2539 Grant Avenue in the I-G Zoning District.

Applicant Halus Power Systems states the purpose and justifications for the proposed Project wind turbine to be: 1) research and development purposes as part of the company's ongoing efforts to increase operational and energy efficiencies of the turbines it re-manufactures; and 2) energy generated by the turbine will offset the company's demand for non-renewable energy for their operations. (ESA *Technical Memo.* May 10, 2012) As proposed, the Project requires a discretionary action by the City, which requires environmental review and public disclosures under the California

Environmental Quality Act and Guidelines (CEQA).

The Project wind turbine operating specifications are indicated in **Table 1** below. The turbine would be erected atop a tubular tower, with a maximum blade sweep height of approximately 100 feet and a ground clearance under the blade of 51.5 feet. The turbine will achieve full power at wind speeds of 37.6 mph with a turbine rotational speed of approximately 44 rpm. The turbines operational cut-in wind speed is 7.4 mph, with a cut-off wind speed of 62 mph. An electronic wind vane mechanism allows the turbine to rotate on its horizontal axis to face maximum windward force directions.

Table 1
Halus Project Wind Turbine Specifications

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Wind Turbine Model: Vestas V17 90 kilowatt-rated, horizontal turbine axis on tubular tower
Electric Power Output: 50 kilowatt-rated with Halus modifications
Total Wind Turbine Weight: Approx. 4 tons
Total Operating Height: 100 ft.
Tubular Tower Height: 73.82 ft.
Tubular Tower Diameters: Base approx. 12 ft., top approx. 6 ft.
Reinforced Concrete Tower Foundation: Approx. 20 ft. x 20 ft. slab
Turbine Rotor Blades: 3
Turbine Rotor Hub Height: 76 ft.
Rotor Blade Sweep Diameter: 44 ft.
Blade Tip Ground Clearance: 51.5 ft.
Blade Swept Area: 2,000 square ft.

Sources: Halus Power Systems 2012, PTC July 2012, and ESA *Technical Memo.* May 10, 2012.

The final page of this report is **Figure 1** depicting the Halus Proposed Wind Turbine Location, and Project vicinity residential, industrial and public recreational land uses in aerial color photo perspective. The ESA-derived **Figure 1** annotation data for the Halus wind turbine vary slightly from entries in **Table 1** above.

1

Mitigated Negative Declaration Analysis

The CEQA statute provides that Mitigated Negative Declarations (MNDs) are used "when the Initial Study has identified potentially significant effects on the environment, but 1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and 2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (CEQA Section 21064.5)

An Initial Study formalizes the City Lead Agency preliminary analysis to determine whether an Environmental Impact Report or Negative Declaration must be prepared. Most commonly, the Initial Study is based upon a "Checklist" which illuminates the various environmental impacts which may result from the development project. The Checklist, however, is only part of the Initial Study. The Initial Study also must explain the reasons for supporting the Checklist findings and note or reference the source or content of the data relied upon in its preparation and determinations.

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Mitigated Negative Declarations are a project applicant's expediting short cut to avoid the time and

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six-figure ($) expense of preparing and processing a full CEQA Environmental Impact Report (EIR) – including Draft EIR and Final EIR with Response to Comments disclosures. The abbreviated MND processing route also avoids the controversies and delays that can result from the requisite EIR analysis of "alternatives to the proposed project" and "cumulative environmental impacts."

The following is an analysis of the technical accuracy, adequacy and specific scientific bases for findings and conclusions in the revised City's Initial Study Checklist and resultant MND where five "potentially significant impact" factors are addressed. These Project impact factors are: Aesthetics, Biological Resources, Geology/Soils, Hazards & Hazardous Materials and Noise. Analysis of the five impact factors that follow is presented in the same order and name in which they appear in the City's Initial Study Checklist dated Oct. 11, 2012. Where appropriate, PTC will provide a point-by-point rebuttal of City findings.

Aesthetics

Aesthetics, views, shading and nighttime illumination issues are related elements in the visual or scenic environment. Aesthetics generally refer to the identification of visual resources and the quality of what can be seen, or overall visual perception of the environment. Views refer to visual access and obstruction, or whether it is possible to see a focal point or panoramic view from an area. Shading issues are concerned with effects of shadows cast by existing or proposed structures on adjacent land uses. Nighttime illumination addresses the effects of a proposed project's exterior lighting upon adjoining uses.

Potentially significant impacts addressed in City's Initial Study Checklist followed by PTC Rebuttal:

a. Would the Project have a substantial adverse effect on a scenic vista – **City finds** *Less than Significant Impact* due to existing adjacent industrial uses and zoning, Project wind turbine similar or less than height of existing PG&E high-tension utility towers. Halus provides a "Photo Simulation" depicting 11 views into the Project site before and after wind turbine construction as evidence of no significant Project impacts to existing scenic vistas.

3, 6, 7, 9, 11

Rebuttal – The Checklist should find the Project a *potentially significant impact* to both private and public Aesthetics -- degrading scenic vistas and the existing visual character where there is no mitigation. Figure 1 herein depicts the Project location adjacent to a large, fully-occupied residential subdivision known as Heron Bay. As many as 25 Heron Bay homes would have direct rear views into the Halus Project property and the proposed 100-ft. high wind turbine. Halus' selective photo simulations of 11 locations all are taken from public Bay Trail views, without consideration for the direct rear views from Heron Bay residents into the Project site. Moreover, the size, scale, format and perspectives of the photo simulations are inadequate to afford any fair or independent analysis of Project impacts to scenic vistas or existing visual character or quality.

17-1

Heron Bay homeowners accept that existing adjacent electric power utility and drainage facilities are necessary for the greater community good. These homeowners also accepted that there are existing, southeasterly-adjacent, low-rise general industrial-zoned land uses. However, all of these facilities and uses negatively affect their home investment values and impair their marketability, neighborhood visual character and lifestyle enjoyment. The new, intrusive, unanticipated adjacent 10-story high Halus wind turbine will add further environmental insult and injury to the Heron Bay private property owners.

10,11,22

Existing PG&E high-tension power line towers are approximately 16 feet higher than the operating height of the proposed Halus Project wind turbine. However, there are no similarities in visual aesthetic impact in their structural tower profiles, aerial mechanization, moving member distractions or scenic vista intrusion. The PG&E towers have static, maximum one-foot profiled, lattice structural steel construction as opposed to the single, modular wind turbine tower with visual profiles varying from a base of approximately 12 foot width, to top 6 foot width, to a ten-story high whirling and twisting turbine blade with a sweep diameter of 44 feet -- covering a 2,000 square foot area. This 2,000 square foot area is the visual impact equivalent of seeing a Cessna Citation 500 corporate jet spinning like a pinwheel at the top of 100 foot tower less than 500 feet from homes in the Heron Bay neighborhood and less than 350 feet from the Bay Trail and San Lorenzo Creek waterfowl habitat.

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In addition, the Project wind turbine will have *potentially significant impact* to public scenic vista Aesthetics for which there is no mitigation. Co-extensive with the Heron Bay homes southeastern and southwestern boundaries are public trails and parks that are an integral part of the unique Bay Trail, East Bay recreation system. Begun in 1989, the Bay Trail provides easy accessible recreational opportunities for outdoor enthusiasts, including hikers, joggers, bicyclists and skaters. It also offers a setting for wildlife viewing and environmental education, and it increases public respect and appreciation for the entire San Francisco Bay ecosystem. The Bay Trail provides important transportation benefits such as commuting alternatives for cyclists and connections to numerous public transportation facilities. The Bay Trail offers access to commercial, industrial and residential neighborhoods; points of historic, natural and cultural interest; recreational areas like beaches, marinas, fishing piers, boat launches, and over 130 parks and wildlife preserves totaling 57,000 acres of open space. The Bay Trail's policies specifically seek to protect sensitive natural habitats such as the estuarine marsh supporting waterfowl in San Lorenzo Creek that separates Heron Bay homes from the Halus Project site with parallel trails on each creek bank. (*Association of Bay Area Governments*, Website July 2012).

13, 17-3

The proposed Halus wind turbine Project would be unprecedented in the public Bay Trail system as no 100-ft. horizontal axis, tubular tower, wind turbines have been permitted or constructed in or within scenic vistas of the Bay Trail. The City would be setting perilous land use precedent in approving the Halus Project zoning variance.

Additional Investigation

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In order to fully analyze and disclose evidence for City decision makers, the public and Heron Bay homeowners the following additional studies are necessary to satisfy CEQA requirements and limit City liabilities:

Conduct an independent Visual Impact Analysis using computer simulations on current color photos showing the proposed Halus wind turbine in its location at scale from various points of view among the proximate Heron Bay homes and Bay Trails adjacent to the Project site. Presentation exhibits should be no smaller than 11 inches x 17 inches in landscape format.

b. Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway – **City finds** *No*

Impact due to existing adjacent industrial uses and zoning, the Project wind turbine is similar or less than the height of existing PG&E high-tension utility towers. There would not be a substantial adverse effect on scenic resources. **Finding noted.**

c. Would the Project substantially degrade the existing visual character or quality of the site and its surroundings – **City finds** *Less than Significant Impact* due to wind turbine located in an area that is already subject to industrial uses. The existing visual character is of industrial uses. Open space to the northwest is already compromised with the PG&E high-tension utility towers. The proposed wind turbine would have a similar impact. Halus provides a "Photo Simulation" depicting 11 views into the Project site before and after wind turbine construction as evidence of no significant Project impacts to existing scenic vistas.

3,6,7,9,10,11,13
16,17-1,17-3,22,26

Rebuttal – Refer to Section a. above.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area – **City finds** *No Impact* due to wind turbine would not create a new source of light or glare. Halus provides ESA's Sept. 20, 2012 *Technical Memorandum* evaluating wind turbine shadows.

Rebuttal – While the Proposed Halus Project does not alter illumination or glare in views of the area, the Checklist should find the Project a *potentially significant impact* to public "open space" in the form of Bay Trails northwest from the Project site according to the ESA Sept. 20, 2012 *Technical Memorandum* evaluating wind turbine shadows. ESA's shadow analysis Figure 2 therein indicates that the existing Bay Trail open space segment between the Project site and Heron Bay homes would receive Halus wind turbine shadowing before, during and after 8:30 a.m. on December 21. The City and community could benefit from "wind turbine siting criteria" precedent of its neighboring jurisdictions. Accordingly, a City of San Francisco ordinance prohibiting new structures over 40 ft. in height from casting shadows over public open space should be applied to the Halus Project in a *potentially significant impact* finding.

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Additional Investigation
In order to fully analyze and disclose evidence for City decision makers, the public and Heron Bay homeowners the following additional studies are necessary to satisfy CEQA requirements and limit City liabilities:
City should consider adopting "wind turbine siting criteria" precedent of its neighboring jurisdictions.

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Biological Resources
A project may impact biological resources through the loss or destruction of individuals of a sensitive species or through degradation of sensitive habitat. Habitat degradation may occur through grading or excavation, increases in water or air pollutants, increased noise, light or vibration, interruption of fresh or salt water supplies, reduction in food supplies or foraging areas or interference with established wildlife movement patterns on or between habitat areas. Projects that create long-term or episodic impacts to natural areas, such as by generating toxic fumes or fugitive dust, could also result in degradation or destruction of a natural habitat. New development, construction, roadways and agricultural use all have the potential to lower or remove

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natural resource values of natural open space systems.

Potentially significant impacts addressed in City's Initial Study Checklist followed by PTC Rebuttal:

a. Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate sensitive or by special status species in local or regional plans, policies or regulations or by California Dept. of Fish and Game or U.S. Fish and Wildlife Service – **City finds** *Potentially Significant Impact Unless Mitigation Incorporated* due to determinations in an Environmental Science Associates (ESA) Technical Memorandum dated May 10, 2012 that the calculated risk of bird fatalities from a single wind turbine operation were not statistically significant. The City has also required Halus to comply with eight mitigation measures specified in a June 29, 2012 California Department of Fish and Game letter commenting on the Halus Project.

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Rebuttal – It should be noted that the aerial twisting, spinning and noise from the Halus wind turbine will disturb and alter avian flight patterns and nesting habits in proximity to the Project. The City "Mitigation Measures" for potential impacts to biological resources are not fully consistent with the June 29, 2012 California Department of Fish and Game letter mitigations.

3,6,7,9,11

b. **City finding** *Less than Significant Impact.*

Rebuttal – Refer Section a. above.

3,6,7,9,11

c. **City finding** *No Impact.*

Rebuttal – Refer Section a. above.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native nursery sites – **City finds** *Less than Significant Impact* due to wind turbine site has no resident or migratory fish among industrial land uses.

3,6,7,9,11

Rebuttal – Refer Section a. above.

Geology/Soils

Geologic processes that result in geologic and soil hazards include: surface rupture, ground shaking, ground failure, tsunamis, seiches, landslides, mudflows, and subsidence of the land. Because the region is generally considered to be geologically active, most projects will be exposed to some risk from geologic hazards, such as earthquakes. Thus, significant geologic impacts exceed the typical risk of hazard for the region.

Potentially significant impacts addressed in City's Initial Study Checklist followed by PTC Rebuttal:

a. **City finding** *Potentially Significant Impact Unless Mitigation Incorporated.* **Finding noted.**

b. **City finding** *No Impact.* **Finding noted.**

c. **City finding** *No Impact.* **Finding noted.**

d. **City finding** *No Impact.* **Finding noted.**

e. **City finding** *No Impact* adopting Mitigation Measure #1: The City of San Leandro has incorporated the 2009 International Building Code into its municipal building code (Title 7, Chapter 7-5). The Project Applicant would be required to comply with all applicable State and City regulations to address potential geologic hazards associated with the proposed project, including ground shaking and liquefaction. Geotechnical and seismic design criteria must conform to engineering recommendations in accordance with the seismic requirements of the 2009 California Building Code (Title 24) and any amendments adopted in the San Leandro Municipal Code. Additionally, because the project site is in a liquefaction Seismic Hazard Zone, the Project Applicant will be required to comply with the guidelines. **Finding noted.**

Hazards & Hazardous Materials

Hazardous materials generally are chemicals, which have the capability of causing harm during an accidental release or mishap, and are characterized as being toxic, corrosive, flammable, reactive, an irritant or strong sensitizer. The term "hazardous substances" encompasses every chemical regulated by both the U.S. Dept. of Transportation's (DOT) "hazardous materials" regulations and the U.S. Environmental Protection Agency's (EPA) "hazardous waste" regulations, including emergency response. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. Activities and operations that use or manage hazardous or potentially hazardous or explosive substances could create a hazardous situation if an accidental explosion or release of these substances occurred. Individual circumstances, including the type of substance, quantity used or managed, and the nature of the activities and operations, affect the probable frequency and severity of consequences from a hazardous situation. Federal, state, and local laws regulate the use and management of hazardous or potentially hazardous or explosive substances.

Potentially significant impacts addressed in City's Initial Study Checklist followed by PTC Rebuttal:

a. **City finding** *Less than Significant Impact* as to creating a significant hazard to the public.

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Rebuttal – The City should find *Potentially Significant Unless Mitigation Incorporated* due to the known probability of wind turbine structural blade failures and fragmentation – so-called "rotor failure." The risk of wind turbine blade break-ups and projectile fragment hazards is known to be as high as one in one hundred per year. Thus, planning jurisdictions have established land use setbacks to separate people and property from the hazards of rotor failure. (*California Energy Commission*, Nov. 2006)

The Heron Bay homes are less than 500 ft. from the proposed Halus wind turbine, and thus are exposed to the rotor failure risk from the Halus wind turbine. A 500-ft. setback, or separation, of the Halus wind turbine from the adjacent Heron Bay homes must be a minimum mitigating revision in the Project to comply with Mitigated Negative Declarations provisions, i.e. "... 1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for

public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and 2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (CEQA Section 21064.5)

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Additional Investigation
City should consider adopting "wind turbine siting criteria" precedent of its neighboring jurisdictions. Alameda County has a wind turbine setback requirement of three times the proposed structure height, or 500 ft., whichever is greater from the structure's property line.

b. **City finding** *Less than Significant Impact.* **Finding noted.**

c. **City finding** *Less than Significant Impact.* **Finding noted.**

d. **City finding** *No Impact.* **Finding noted.**

e. **City finding** *Less than Significant Impact* adopting Mitigation Measure #2: Halus Power Systems shall secure approval of Alameda County Airport Land Use Commission and the Federal Aviation Administration (FAA) prior to building permit approval of the wind turbine. The FAA issued a June 21, 2012 "Determination of No Hazard to Air Navigation" letter concerning the Halus Project with conditions.

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Rebuttal – FAA determined "The proposed wind turbine would be in the line of sight for Oakland ASR-9 (radar terminal system) used by the Northern California Terminal Rader Approach Control (NCT), Oakland (OAK) and Hayward (HWD) Air Traffic Control Towers. The wind turbine would cause unwanted primary returns (clutter) and primary target drops in the area of the turbine. ..."

f. **City finding** *No Impact.* **Finding noted.**

g. **City finding** *Less than Significant Impact.* **Finding noted.**

h. **City finding** *No Impact.* **Finding noted.**

2.22

Additional Investigation
Concerning the above-referenced FAA and Alameda County Airport Commission permits to approve the Halus wind turbine construction and operation, research has shown that wind turbine blades have an extremely large radar signature which can disrupt aircraft navigational radar. The City must acknowledge and address potential added aircraft navigational radar impacts of the proposed Halus Wind Turbine Project where no public benefits are provided.

Noise
Environmental noise is measured in decibels (dB). To better approximate the range of sensitivity of the human ear to sounds of different frequencies, the A-weighted decibel scale (dBA) was devised. Because the human ear is less sensitive to low frequency sounds, the A-scale deemphasizes these frequencies by incorporating frequency weighting of the sound signal. When the

A-scale is used, the decibel levels are represented by dBA. On this scale, the range of human hearing extends from about 3 dBA to about 140 dBA. A 10-dBA increase is judged by most people as a doubling of the sound level. To account for the fluctuation in noise levels over time, noise impacts are commonly evaluated using time-averaged noise levels. The Community Noise Equivalent Level (CNEL) represents an energy average of the A-weighted noise levels over a 24-hour period with 5 dBA and 10 dBA increases added for nighttime noise between the hours of 7:00 p.m. and 10:00 p.m. and 10:00 p.m. to 7:00 a.m., respectively. The increases were selected to account for reduced ambient noise levels during these time periods and increased human sensitivity to noise during the quieter periods of the day.

Potentially significant impacts addressed in City's Initial Study Checklist followed by PTC Rebuttal:

a. Would the Project expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinances or applicable standards of other agencies – **City finds** *Less than Significant Impacts* referencing "manufacturer's noise specifications" consistency with General Plan's "normally acceptable" residential noise level of 55 dBA.

Rebuttal – The Halus-provided "manufacturer's noise specifications" dated November 28, 1996 for a Vestas Model V29, 225 kilowatt wind turbine is neither current nor relevant to the proposed Halus-modified Vestas Model V17, 90 kilowatt wind turbine.
Horizontal axis wind turbines such as Halus proposes generate significant noise and vibration. The City provides no acoustical analysis to show noise or vibration impact levels at or inside the Heron Bay private homes adjacent to the Halus Project site. No comparative noise standards are provided to disaggregate inside from outdoor residential noise impact levels, nuisance noise compliances at the public use Bay Trails and related park areas, or existing local ambient residential noise levels. PTC understands that Heron Bay homes were built with added acoustical attenuation windows and wall insulation in recognition of their proximity to Oakland International Airport three miles north and the Hayward Executive Airport two miles south from Heron Bay homes. The City MND and Initial Study reference wind turbine noise levels, but do not show substantial evidence of the actual levels off site. Numerical noise standards compliance at residential and recreational noise receptors must be demonstrated.

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Additional Investigation
In order to fully analyze and disclose evidence for City decision makers, the public and Heron Bay homeowner the following additional studies are necessary to satisfy CEQA requirements and limit City liabilities:
Conduct computer analysis per Community Noise Equivalent Level (CNEL) or County noise ordinance compliance standards. Provide Halus Project noise levels at adjacent residential and recreational receptors from computer modeling of sound in decibels (dBA). Noise contours at 5 dBA intervals should be plotted over a scaled site plan or aerial photo capturing the locations of the Halus wind turbine noise source and proximate residential and recreational noise receptors.
The City and community could benefit from adopting "wind turbine siting criteria" precedent of other jurisdictions. A common limit for significant wind turbine noise impacts to adjacent residential land uses is an increase of 10 dBA above existing ambient residential noise levels.

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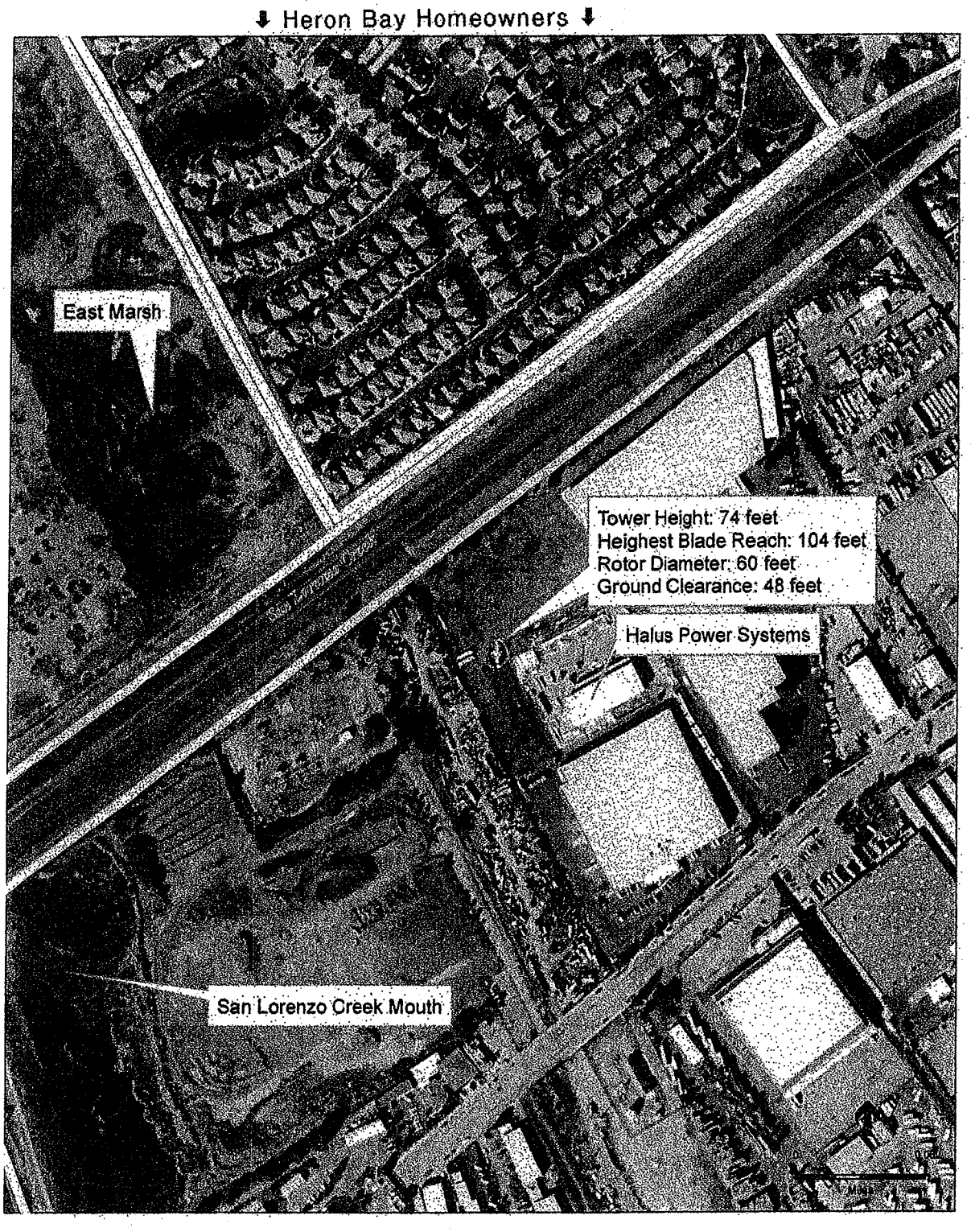
PTC 07-12 File

Paul Taylor, B.S., M.S.
Principal Environmental Scientist

The following and final page of this Report is **Figure 1** depicting the Halus Proposed Wind Turbine Location, and Project vicinity residential, industrial and public recreational land uses in scaled aerial color photo perspective.



SOURCE:Microsoft Virtual Earth

Halus Power Systems

Figure 1
Proposed Turbine Location

Public Trails and Parks

Paul Taylor's Résumé

EXHIBIT B

ForensisGroup
Technical, Engineering, Construction, Medical & Scientific Experts

3452 East Foothill Blvd., Suite 1160, Pasadena, CA 91107-3160
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800/555-5422 (Toll Free)
e-mail: experts@ForensisGroup.com
http://www.ForensisGroup.com

Paul Taylor, B.S., M.S., R.E.A., Principal
RESUME

SUMMARY

Corporate environmental science and regulatory consultant to real estate, commercial, industrial and public clients, and law firms. Expertise and proven success in the following areas:

- **Executive Leadership and Diligence in Professional Business Planning and Practice;**
- **Principal Company Management in Communications, Technology and Production;**
- **Public Policy, Government and Corporate Regulatory Affairs Compliance and Issues Resolution;**
- **Strategic Research, Analysis and Planning, and Liability and Litigation Avoidance;**
- **Multidisciplinary Team Director and Public Policy Editorial.**

A reputation for technical competence, professional integrity, aggressive advocacy and skillful, effective communications in all media.

EXPERIENCE

Present Principal, PAUL TAYLOR CONSULTING, environmental science and regulatory consultants to real estate, commercial, industrial and public clientele, with specialty in EIRs, EISs, wetland and wildlife permitting and mitigation plans, siting analyses, litigation support and expert testimony. Practice experience throughout Southern and Central California.

2004-2005 Principal Planner, PCR Services Corp., Santa Monica and Irvine.
Mr. Taylor was planning and CEQA manager for urban infill and large raw land developments in the fast-paced and complex Southern California market, with particular emphasis on environmental impact reports, mitigation strategies and entitlements processing. Projects located in Los Angeles, Riverside, San Bernardino and Kern Counties. Project Team leadership, consultants management and communications, and regulatory permitting are his strong points.

1991-2004 Founder and Managing Principal, TAYLOR & COMPANY, Los Angeles.
Mr. Taylor's executive experience, academic training, business and professional practice have emphasized a multidisciplinary approach in management and issues resolution. He has over 20 years experience, and provides principal project management with primary responsibilities in regulatory compliance strategy development, project permit programs and expediting, environmental impact report (CEQA EIR) and statement (NEPA EIS)

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preparation and processing, environmental assessments and audits, land use analyses, water and wildlife resource mitigation plans and agreements, wetland and mining permits, recycling/solid waste management, litigation support, and expert testimony. As Principal-in-charge, Mr. Taylor personally represented each client in administrative and judicial

proceedings.

1988-1991 Director of Regulatory Affairs, Meredith/Boli & Associates, Inc.; Los Angeles, Santa Cruz, and Chicago.
Responsible for managing and directing feasibility studies, environmental research, and engineering investigations for industrial, commercial, residential, and waste management projects. Provided regulatory analysis, management and technical support on a variety of projects including site assessments, EISs, EIRs, endangered species habitat conservation plans (Section 10), wetlands permits (Section 404), waste recycling methodologies, regulatory compliance advisement, overall project permitting, forensic ecology, hearing presentations, and litigation support.

2

1985-1988 Manager of Environmental Services, Engineering Service Corp., Los Angeles, Santa Clarita and Palm Desert.
Responsible for managing and directing multi-disciplinary studies in preparation of EIRs for industrial, residential, and commercial developments. Provided regulatory compliance strategies and expedited agency approval for multi-use, raw land developments in Southern California.

1977-1984 Senior Project Manager, Nelson & Co., Inc. Engineers and Architects, New Orleans.
Responsible for environmental engineering studies for foreign and domestic, industrial and public projects. Responsible for industrial site selection studies in coastal and river systems. Manager of permit acquisition programs, and environmental issues resolution for major industrial facilities in sensitive environments in the US, Africa, South America, and the Pacific Rim.

1975-1977 Environmental Scientist, Burk and Associates, Inc., New Orleans.
Responsible for environmental impact assessments of industrial, commercial and recreational projects involving water pollution, sewerage facilities, noise pollution and aesthetic impacts.

1973-1975 Research Assistant, Tulane University Medical School, New Orleans.
Responsible for designing and conducting medical research laboratory experiments in endocrinology and microbiology. Researchers at this laboratory received the *Nobel Prize in Medicine* in 1977.

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EDUCATION/TRAINING

M.S. Environmental Sciences, Tulane University, New Orleans, Louisiana;
B.S. Biology/Chemistry, Livingston University, Alabama;
Marine and Coastal Sciences Curricula, University of Alabama, Gulf Coast Research Laboratory;
Environmental Law Curriculum, Tulane University Law School;
Communications and Journalism Studies, Loyola University;
Hazardous Waste Management Workshop, University of Maryland;
California Environmental Quality Act Workshop, University of California at Irvine;
Environmental Policy Negotiations and Resolutions, Massachusetts Institute of Technology;
Los Angeles County Bar Assn. Member in Environmental Law Continuing Legal Education (inactive);
PC Windows, MS Word/Works, and Excel Proficient.

PROFESSIONAL CREDENTIALS

California Community College Lifetime Instructor's Credential in Ecology and Water Quality (1985)

PROFESSIONAL REGISTRATIONS

Registered Environmental Assessor in the State of California ,R.E.A. No. 00850 (inactive)

ORGANIZATIONS/AFFILIATIONS

Founder and Director of *Land Trust Imprimatur* environmental accreditation program
Past President of West Los Angeles Homeowners Association
Associate Member, Los Angeles County Bar Association (inactive)
Institutional Affiliate of The Ecotourism Society (inactive)
Member of the Screen Actors Guild (inactive)

PUBLICATIONS

Mr. Taylor has authored and contributed to hundreds of scientific and regulatory reports on a variety of environmental matters. Mr. Taylor has supported, and actively participated in, numerous administrative and judicial proceedings, including expert court testimony.

Mr. Taylor has authored dozens of public policy news and analysis articles, and has been published in *The Wall Street Journal, Los Angeles Times, The Los Angeles Daily News, The Los Angeles Business Journal, San Francisco Chronicle, Investors Business Daily* and *The Washington Times*.

Mr. Taylor has also been published at noted public policy news websites such as "Media Matters" and "Common Conservative."

Mr. Taylor has been an on-air Guest Commentator and an environmental issues advisor with nationally

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syndicated radio talk shows.

PRESENTATIONS

Mr. Taylor has been a Guest Lecturer for the University of California at Los Angeles Environmental Management curriculum.

2 Mr. Taylor conducts a *Speaker Program* on environmental policy for trade groups, business associations, law firms and corporate gatherings.

Pictures of Birds

EXHIBIT C

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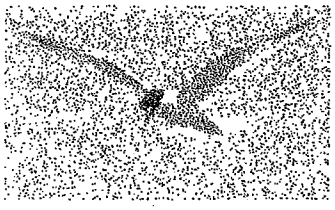
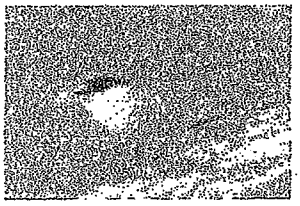
California Least Tern

A Federally & State Endangered Species Living on our San Leandro Shoreline

2,19,20





California Least Terns have been listed as endangered since 1970.

California Least Terns nest on beaches, mudflats, and sand dunes. Adults have short, forked tails and short yellowish legs. They have a distinctive triangular black cap across the eyes to the beak, and a white forehead and underparts. Their backs and tops of their wings are pale gray. The outer edges of their wings are black. Their bills are golden with a black tip.

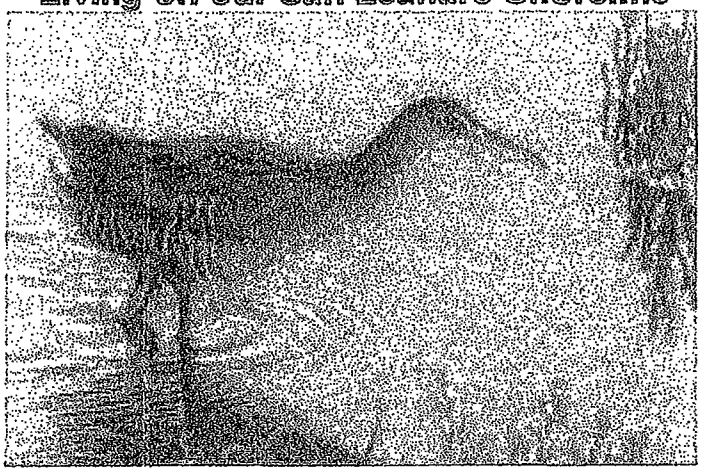
Primary foraging sites for these opportunistic feeders are shallow estuaries, bays, and lagoons. They hover until they spot prey and then plunge into the water to grab a fish without fully submerging.

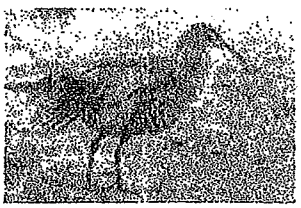
Courtship is an elaborate ritual that takes place near an exposed tidal flat or beach. In a ritual called the "fish-flight display," a male flies around with a small fish in his beak, often pursued by a female looking for a fishing mate. The chases are spirited and vocal as the birds weave high in the sky and make paired aerial glides, descending swiftly in close unison.

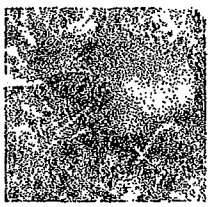
California Clapper Rail

A Federally Endangered Species Living on our San Leandro Shoreline

2.20







The California Clapper Rail is close to the brink of extinction.

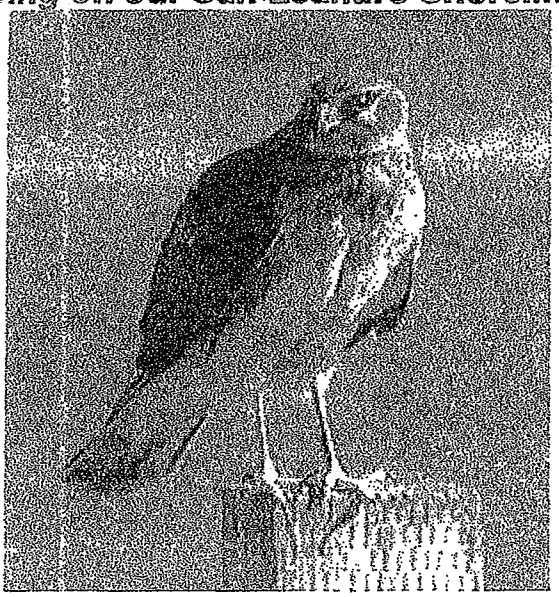
The California Clapper Rail is a squat, short-necked, and long-legged bird with a modest streak. Appearing mostly brownish in color from afar, when seen up-close it becomes apparent that the bird has an intricate beauty: a rust-colored breast, brown streaks along its olive wings, and black-and-white bars on its flanks not only make it a wonderful sight, but also help the species hide in the pickleweed and cordgrass that typify its preferred habitats.

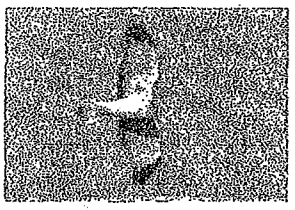
Once common in coastal salt marshes in northern and central California, the California Clapper Rail has declined precipitously in both range and number. Only 15% of the San Francisco Bay's original marshland remains today, and much of it is highly fragmented and altered. Since 1970, the California Clapper Rail has seen population increases but also in some years heartbreaking, somewhat unexplained declines.

Northern Harrier

A Federally Endangered Species Living on our San Leandro Shoreline

2,19,20





Northern Harrier populations diminished with wetland destruction.

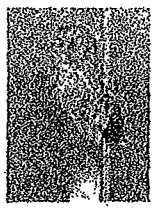
The slender-bodied Northern Harrier has a long tail and wings, yellow legs, owl-like facial discs, a conspicuous white rump patch, and yellow eyes. Adult males have blue-gray and white underparts. The females are more brown and tan. The Northern Harrier is medium-sized, with females typically larger than males.

Northern Harriers hunt for small mammals while flying over open habitats. The species is often called the "marsh hawk" because it inhabits open marshlands. It got the name "harrier" due to its habit of raiding or harrying its prey. A female, after receiving prey in flight from the male, will not return directly to the nest but will make several false landings to confuse predators.

Western Burrowing Owl

A Species of Special Concern
Living on our San Leandro Shoreline

2.19.20



In 2003, due to large declines of Western Burrowing Owls, California conservationists petitioned to list them as Endangered Species. Though unsuccessful, conservationists continue work on behalf of these owls.

The Western Burrowing Owl is small, long-legged, and yellow eyed, without ear tufts. It is white around the eyes and under the cheeks. Its body is mostly brown with white spots. These owls build their nests underground and are active both day and night (diurnal).

Their flight pattern involves rapid ascents (~30 m), hovering for 5-10 seconds, then rapid descents (~15 m). Males also fly in circular patterns. These owls' elaborate courtship involves cooing, bowing, and short flights.

People harm Western Burrowing Owls, destroying the ecosystem around them via wind turbine collisions, burning, and heavy equipment crushing.

Subject: FW: Proposed Halus Wind Turbine Tower
Date: Monday, July 30, 2012 11:39:41 AM PT
From: EPenaranda@sanleandro.org
To: Louis Rigaud, quinn@quorum-inc.com

From: Penaranda, Elmer
Sent: Monday, July 30, 2012 11:39 AM
To: 'benny.lee'
Subject: RE: Proposed Halus Wind Turbine Tower

Benny –

The City is in receipt of your email. It will be provided to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Sincerely,
Elmer Penaranda
Planning Services Division
City of San Leandro

From: benny.lee
Sent: Sunday, July 29, 2012 9:16 AM
To: Penaranda, Elmer
Cc: wind@pas-inc.com
Subject: Proposed Halus Wind Turbine Tower

Dear San Leandro Community Development Department:

Please do not grant the variance for the Halus Wind Turbine Tower because of the following reasons:

1. Financial hardships for homeowners from declining property values while Halus is consistently profitable year after year in worst economy of last 70 years.

17-1 The economic conditions of the past few years have tremendously devaluated property values and all studies of Wind Turbines on the impact on property values show decline for both prolonged and temporary periods. Any decline on property values even if temporary can potentially end 'in progress' equity, refinancing and loan modification for homeowners. Those not 'in progress' and looking to get equity, refinancing and loan modification may lose this opportunity when values decling. For some, this hardship can lead to financial devastation and possibly bankruptcy with loss of home. All information and publications on Halus has shown that the company has performed exceptionally well year over year in one of the worst economies of the last 70 years having grown 170% since 2009; many other companies have closed shop while Halus continues to prosper. Not providing the variance will not provide hardships to Halus business and consequently has no impact to homeowner property values

2. Real health issues severely taking away quality of life.

17-2 My wife and son have been genetically predisposed with the most severe effects from migraines. In the

most severe incidents blackout with a collapse occurs and less severe incidents resulting in nausea, vomitting, and intolerable pain. If medication is not applied timely prior to the migraine, the medication will not work. The medication is a prescription barbiturate cocktail which also leaves them non-functioning due to the intense narcotic effects. Science has not determine what triggers migraines; however, it is well documented that cyclic sounds, distortional lighting, and combinations of the two (much like that from Wind Turbines) also trigger migraines - my wife and son will attest to this. For this reason alone, I believe that no Wind Turbine Tower should ever be installed near residential communities or areas commonly used by diverse groups of people; the health risk to quality of life for those with severe migraines is a hardship no one should be imposed with.

17-2

3. Adversely impacting bay shoreline natural aesthetic view with first of kind installation by bay shoreline which may set precedence inviting others to do the same and thereby removing it's natural beauty.

17-3, 1,6,7, 8,9,10, 11,12, 13,14

I work in South San Francisco's Oyster Point Business Park and have a clear view of the beautiful East Bay Shoreline where I live. I see no Wind Turbines at all. Putting a Wind Turbine will not only single out our community as the first installation of a Wind Turbine on the bay shoreline, but it may invite others to do the same. This will distort the beauty of our shoreline much like the ugliness of driving by the Altamont Pass. I recall from more than 30 years ago on the Altamont Pass seeing one Wind Turbine, then six, then dozens, then hundreds, and now thousands; this would damage the beauty of the bay shorelines forever should we begin with one. There are no metropolitan areas with Wind Turbines propagated with one or many throughout the United States; the reason is simple - they are aesthetically unpleasing which is why they are installed in unpopulated or rural areas. Even if just this one Wind Turbine is installed and policy restricts other installations, is the San Leandro Community Development Department or the Board of Zoning and Adjustments looking to be only discriminate to homeowners who reside in and around Heron Bay? And what about those who use the bay trail along with those who enjoy the view of the bay shorelines from across the Bay or those who view from the San Leandro Hills; are they to have their view distorted by the Halus Wind Turbine Tower as a new landmark? For the reason of preserving one of San Leandro's best treasures, the bay trail shoreline nature preserve, the variance should be rejected and policies against Wind Turbines should be considered.

4. Imposes a new unnatural view to homeowners which would have altered their original purchase decision. This is not the same as existing electrical towers nor is it the same as a cell phone tower. This is a tower with a large spinning turbine with giant fan blades covering an area from 48 feet to 104 feet in height.

1,6,7,8, 9,10,11, 12,13,14 17-1,17-4, 17-5, 23

I visited Heron Bay 14 years ago when searching for a new home with my family and marvelled at the beauty of the bay trail shoreline. While I had reservations on the power lines on the possible health impacts to my wife and child, the distance for the house we selected was sufficient enough to not trigger their migraines. I saw no Wind Turbine Tower nor would I have predicted that such an object would be considered. The same goes for the homeowners with a direct line view to Halus' property; they didn't choose to buy into a community with a Wind Turbine so they should not be given this added burden. A Wind Turbine Tower is not like an electrical tower or a cell phone tower as it has moving parts where the blade tips can travel at speeds up to 95 mph (calculated for 60' rotor at 44 rpm per ESA document), produce cyclic sounds and causes wind vacuum distortional sounds.

5. No defined wind turbine policies in City of San Leandro with public input since this wind turbine is directly adjacent to homes and a natural estuary.

The City of San Leandro and the Community Development Department has no specific policy and no experience with the risks for Wind Turbine Towers. My research has found that the risk does exist where catastrophic failure can occur regardless of built-in safeguards. Catastrophic failure includes fires, explosions, and large fan blades breaking with large debris flying over a half mile. Questions for this policy should impose upon a business having mandatory 24x7 monitoring and fail-safe execution of safety control protocols in the event of a catastrophic failure which includes but not limited to explosion. Also, mandatory financial capital reserve impound on the business/entity for removal of wind turbine in the event it becomes unused, Halus ends its business at the location, no maintenance occurs on the Wind Turbine, or Halus fails to meet mandatory safety and environmental compliance audits; we don't want the shoreline to be blighted by dead Wind Turbines.

17-6

While this is not an endorsement to support the Wind Turbine, clearly, the City of San Leandro and the Community Development Department has not considered these policies and compliance for Wind Turbines which should be a bare minimum requirements to comply with public safety and environmental justice demands.

6. Halus' underlying purpose and intent.

Halus owner Mr. Louis Rigaud stated in the Heron Bay HOA meeting on June 20, 2012 that he does not want to pay his PG&E bills and he wants to use the onsite installation of the refurbished Wind Turbine tower to market his business.

17-7, 6, 7, 8, 9, 10, 11, 12, 13, 14

With respect to paying his PG&E billes, these wind turbines are outdated and are no longer supported which provides Halus an edge in purchasing these devices inexpensively; however, they are indeed refurbishing outdated technology which is no longer supported. While my intent is not to disparage Mr. Rigaud, his choice for the installation of an outdated Wind Turbine Tower is so that he saves money at the expense of the community and environment without fully realizing this. His savings from PG&E would be roughly over $1,000 a month but at the expense of homeowners and the environment to the tune of possibly tens of millions of dollars in property devaluation and adverse health effects. A much more feasible approach yet costlier would be to install solar panels, also green technology, on his roof; a green technology expert hired by the Heron Bay HOA calculated that 20% coverage of his roof surface area by solar panels would achieve the same power as the proposed Win d Turbine. A Heron Bay HOA board members met with Mr. Rigaud where he discussed his business which includes Solar Panel installations; however, his predominant business is Wind Turbines. Had Halus' petition was for Solar Panels which would still be green technology, the concerns would likely be less significant since no moving parts are used and the Solar Panels would be installed on his roof not visible to residents nor trail users.

Regarding using the installation of the Wind Turbine Tower to market his business, the San Francisco Business Times published and article on October 25, 2010 where Mr. Rigaud quoted that he had no sales staff and had run just one advertisement in his Halus' seven year history yet his business has customers in 25 states coast-to-coast. He had no onsite installation of a Wind Turbine Tower in those seven years and it appears that it had no adverse impact to his business whatsoever. Truly marketing his business would be to run advertisements, leverage customer testimonials, and develop his sales process.

We should ask for this first in kind installation of a Wind Turbine Tower on the bay shoreline, who are the audience and what is the message being presented? The message would definitely be perceived by those who can see it as Wind Turbine Towers throughout the bay shoreline absent of environmental impact. The bay shoreline is home to the largest bird estuary in the San Francisco Bay Area which covers over three dozen federally protected and endangered species. If we as a community are to act

environmentally responsible to prevent disruption of our precious bay ecosystem, we should for this reason reject the variance and move towards a policy on Wind Turbines in the city of San Leandro.

Summation:

17-7 Halus intent of saving over $1,000 per month is no justification to impose financial hardships on homeowners. Studies on new Wind Turbines by homes within a mile circle have suggested property value drops of 10% to 30% which for Heron Bay alone would be anywhere between $50,000 to $150,000 per home or $30 million to $150 million for the community.

17-2 For those who have severe migraines such as my wife and son, the installation of a Wind Turbine will introduce migraine triggers which will take away more from their quality of life. This is not a less than significant impact being imposed upon those afflicted with migraines.

6 The fact is that we're not adding another electrical tower to the bay shorelines so why would it be okay to add something so different as a tower with a turbine engine with large spinning blades and tips that move as fast as 95 mph. It will be visible from the bay trail, around the community, within areas of San Leandro, and from the Hayward/Castro Valley/San Leandro/Oakland Hills. Across the bay, no one can see the electrical towers due to its frame profile but a wind turbine will be clearly visible.

17-6 The City of San Leandro has no policy and no experience with Wind Turbines to treat it as just another tower. While the risk may be remote for catastrophic failure, the risk does exists particularly since there's no mandated maintenance compliance requirements, no 24x7 constant risk monitoring and no absolute fail-safe controls particularly since the proposed Wind Turbine is next to a large community.

20, 13, 14 While Halus' business is serving a noble niche in the green energy market, the installation of a Wind Turbine Tower so close to thousands of homes and next to the bay shoreline environmental preserve is irresponsible. Such an installation would signify to others that preservation of our bay shoreline environment is not needed. The Altamont Pass started with one Wind Turbine in the late 1970's and now about 5,000 exist. It's now home to many wind farm graveyards because many of these companies have come and gone. Halus' business is in refurbishing outdated and unsupported Wind Turbines; in other words, these Wind Turbines are supported only by one company (Halus) and shares the same risk of becoming unsupported should that company cease to exist.

In summation, I urge for the variance for the Wind Turbine Tower to be rejected and a policy for the City of San Leandro with public input to be considered.

Regards,

Benny Lee

Subject: FW: Halus Wind Turbine Tower
Date: Monday, July 30, 2012 10:39:20 AM PT
From: EPenaranda@sanleandro.org
To: Louis Rigaud, quinn@quorum-inc.com

Elmer Penaranda
Senior Development Project Specialist
Office of Business Development
City of San Leandro

From: Penaranda, Elmer
Sent: Monday, July 30, 2012 10:35 AM
To: 'ly5354'
Subject: RE: Halus Wind Turbine Tower

John and family –

The City is in receipt of your email. It will be provided to the Board of Zoning Adjustments (BZA).

Sincerely,
Elmer Penaranda
Planning Services Division
City of San Leandro

From: ly5354 [mailto:ly5354@yahoo.com]
Sent: Tuesday, July 24, 2012 6:09 PM
To: Livermore, Kathleen; Liao, Thomas; Penaranda, Elmer
Cc: wind@heronbayhoa.org
Subject: Halus Wind Turbine Tower

Hi all,

18, 19 Please help us protect the birds living in the wet land and our neighborhood, and stop Halus from installing the Wind Turbine tower.

We'd like the way it is now - no, no, no Wind Turbine.

Thank you!

John and family (6 people)
Heronbay home owners

Subject: RE: Halus Wind Turbine Tower
Date: Monday, July 30, 2012 10:38:54 AM PT
From: EPenaranda@sanleandro.org
To: quister4@yahoo.com

Qui Chau –

The City is in receipt of your email. It will be provided to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Best regards.
Elmer Penaranda
Planning Services Division
City of San Leandro

From: Qui Chau [mailto:quister4@yahoo.com]
Sent: Thursday, July 26, 2012 4:46 PM
To: Penaranda, Elmer
Cc: wind@heronbayhoa.org
Subject: Halus Wind Turbine Tower

Dear Mr. Elmer Penaranda:

1,2,3, 5,7, 9,10, 17-1

I am writing this letter to express my concern of the construction of the wind turbine at Halus Power Systems in San Leandro, CA. The wind turbine will be built so close to our community which is a high populated residential area. It will pose potential risk to our human life, pets, and wildlife due to noise and equipment error. Also, the structure of the turbine with its height, dimension, and appearance will definitely have a huge impact on our environment and home value.

As a member and official of our city official, please re-evaluate this project considering the magnitude of potential risks to our health and to our way of life.

Sincerely,

Qui Chau
2252 Gavia Ct
San Leandro, CA 94579

Subject: RE: Halus Wind Turbine Tower
Date: Monday, July 30, 2012 11:37:18 AM PT
From: EPenaranda@sanleandro.org
To: rose@itmindset.com

Rose Ng –

The City is in receipt of your email. It will be provided to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Best regards.
Elmer Penaranda
Planning Services Division
City of San Leandro

From: rose [mailto:rose@itmindset.com]
Sent: Saturday, July 28, 2012 11:57 PM
To: Penaranda, Elmer
Cc: wind@pas-inc.com
Subject: Halus Wind Turbine Tower

To Whom It May Concern:

I am opposed to this Halus Wind Turbine Tower Project regardless of any variance applied. My reasons are simple.

1. Personal Health Issues
2. Property Value Decline
3. Shoreline Aesthetic Change
4. Safety Risks

1. Personal Health Issues

17-2

I have recurring severe migraine headaches which can lead to severe debilitating nausea or unconsciousness. These migraines generally occur in random but are also triggered with exposure to consistent cycling sounds or visual disturbances. This migraine affliction is genetic as my son experiences the symptoms with the same outcomes. My migraine prescription contains a barbiturate cocktail which stops the pain but leaves me with the inability to function due to the narcotic side effects. I have no doubt that the cycling sounds or the motions from this proposed wind turbine will trigger migraines. While I've been told that there's no science behind health effects from Wind Turbines, consequently there is no science behind what triggers migraines. I can assure you that it is very real and it takes away from my life. I don't want this added hea lth risk which will take away more time from my life. It is not fair for this project to be imposed upon people with my health issues.

2. Property Value Decline

17-1

I've read many studies stating that property values for homes next to new turbines would drop significantly. Having worked over 20 years in the lending industry, I can state that drops in home equity value even temporary can surely end the homeowner's ability to get the loan. In this economy, this could drive some to financial ruin including loss of home or it could stop some from sending their kids to college. Whatever the outcome, changes in equity value will have a devastating financial impact to many homeowners. For this reason alone, the variance or the project should not be allowed at the

expense of homeowners.

3. Shoreline Aesthetic Change

My family chose Heron Bay because of the beautiful shoreline and environmental preserve. While some things may obscure the natural beauty, adding a Wind Turbine will change its look forever. It may invite many other Wind Turbines along the shoreline. If future policy restricts no more Wind Turbines, then the hardship of this one falls to Heron Bay alone; this would make an unjust burden on one community and forever damaging the beautiful shoreline and environmental preserve that all Heron Bay homeowners did not buy into. If this is such an important project, please have the city of San Leandro consider selling some of the Marina Shoreline property by the Marina for Halus to install a Wind Turbine there. I have no doubt that communities in San Leandro and prospective stakeholders around the bay area would protest. A change in the shoreli ne's natural aesthetics with one added Wind Turbine demands for full environmental impact report.

4. Safety Risks

I've watched videos where these wind turbines have gone out of control and some cases self-destructed. One thing was clear, their fail-safe controls failed, they were not constantly monitored 24x7, and they were no where near homes. In one instance, the wind turbine blades spun many times faster than it was supposed to when the safety controls failed and the turbine exploded sending the pieces of the turbine and blades flying more than one half mile. The fact that this wind turbine tower is proposed so close to homes should be a red flag with respect to the city's lack of policy on Wind Turbines. And what's next if the unexpected happens? I believe the city and Halus will be subject to severe lawsuits. What do we do with the mangled Wind Turbine? Is there a policy to remove the dead Wind Turbine?

In summary, considering health issues such as migraines, property value decline that can devastate a family's finances, and changing the bayside shoreline aesthetics, the variance for the tower height should not be permitted. Halus as a company is not suffering financial hardships as the business has been growing year over year without fail; however, allowing a variance or even permitting the erection of a Wind Turbine at the expense of homeowners and their properties is unjust. Halus' website notes that they also install solar panels which would be a more responsible action for his business if he does not wish to pay his PG&E bills as he boldly stated at the Heron Bay HOA meeting. Yes, it costs more, but there would be virtually no impact.

The city should consider a policy regarding installations of Wind Turbines and solicit public input.

Sincerely,

Rose Ng
San Leandro Resident
2238 Mariner Way
San Leandro, CA 94579

Subject: RE: Halus Wind turbine Tower
Date: Monday, July 30, 2012 10:42:27 AM PT
From: EPenaranda@sanleandro.org
To: jeff_w_ye@yahoo.com

Wenqiang Ye –

The City is in receipt of your email. It will be provided to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Regards.
Elmer Penaranda
Planning Services Division
City of San Leandro

From: jeff ye [mailto:jeff_w_ye@yahoo.com]
Sent: Thursday, July 26, 2012 5:24 PM
To: Penaranda, Elmer
Cc: wind@pas-inc.com
Subject: Halus Wind turbine Tower

Wenqiang Ye

2301 Diamond Bar Ct,

San Leandro, CA 94579

To Whom It May Concern:

Dir Sir/Ma'am:

I am the home owner of the address above and I am writing to you to express my whole family's concerns about the proposed Halus Wind turbine Project in my neighborhood.

1, 17-1, 17-5, 23, 18

We have lived in this comminute peacefully for more than ten years. Like everyone else, we enjoyed the quality lives, quiet and healthy environment, and many others. We believe that to keep the community this way is very important. Recently, the city of San Leandro tried to put the wind turbines in our community not only to damage our environment, but to put wild birds' lives and some people's lives in danger. We have never seen any wind turbine installed in such high density of communities anywhere in America. As you may know, the wind turbines decrease nearby home values. The noise from the wind turbine is known to cause discomfort and annoyance to almost everyone. If something happened to the wind turbines as such fire, blades falling off, and many other possible malfunction, it can put all the people nearby and all house nearby in terrible danger. As a resident of this beautiful city, we have the responsibilities to maintain the environment and to prevent any harmful actions from any company. We strongly ask you to join us and to take actions to stop this senseless project from happening. Please let the Mayor Cassidy of San Leandro, the San Leandro city council Members, the San Leandro Board of Zoning Officials, etc know that this project is not good for our city, not good

for our environment, and not good for all the wild animals including many in danger birds. Thank you!

Sincerely Yours,

Wenqiang Ye and family

San Leandro Resident

Subject: FW: Halus Wind Turbine Tower
Date: Monday, July 30, 2012 10:48:03 AM PT
From: EPenaranda@sanleandro.org
To: Louis Rigaud, quinn@quorum-inc.com

From: Penaranda, Elmer
Sent: Monday, July 30, 2012 10:48 AM
To: 'Shirley Wong'
Subject: RE: Halus Wind Turbine Tower

Mrs. Wong –

The City is in receipt of your email. It will be provided to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Regards,
Elmer Penaranda
Planning Services Division
City of San Leandro

From: Shirley Wong [mailto:penielu2@yahoo.com]
Sent: Friday, July 27, 2012 2:37 PM
To: Penaranda, Elmer
Cc: wind@pas-inc.com
Subject: Halus Wind Turbine Tower

Dear Ms. Elmer Penaranda,

6.19, 3.17-1, 17-2.13

We decided to move to Heron Bay because of the scenic view. As we like to ride our bikes on the trail, we do not want to see a wind turbine. Also we think that the turbine will endanger the birds that live on the shoreline.

We also think it is too close to our residential area. It will decrease our home values, produce noise, and cause discomfort. There are too many unknown factors that may harm the environment, property, and human health.

In addition, this may open the door for more wind turbines that will not be good for the beauty of the bay and the bay trail.

Please stop this project.

Sincerely,
Mrs. Wong
San Leandro Resident & Bay Trail User

Subject: RE: We are against the Halus Project!
Date: Monday, July 30, 2012 10:57:37 AM PT
From: EPenaranda@sanleandro.org
To: Baysidemed2003@aol.com

Jenny Chen –

The City is in receipt of your email. It will be provided to the Beard of Zoning Adjustments (BZA). Thank you for your comments.

Sincerely.
Elmer Penaranda
Planning Services Division
City of San Leandro

From: Baysidemed2003@aol.com [mailto:Baysidemed2003@aol.com]
Sent: Friday, July 27, 2012 4:28 PM
To: Cassidy, Stephen; Gregory, Michael; Reed, Ursula; Souza, Diana; Starosciak, Joyce; Cutter, Pauline; lee@shininglee.com; chouston3917@yahoo.com; rmendieta@att.net; janeannabelee@sbcglobal.net; toogr8fltm@sbcglobal.net; pg.daly@sbcglobal.net; anetpalma@comcast.net; Prola, Jim; ggas@goldengateaudubon.org; mwelther@goldengateaudubon.org; Livermore, Kathleen; Liao, Thomas; Penaranda, Elmer
Cc: sfbaynwrc@fws.gov; secretary@resources.ca.gov; director@dfg.ca.gov; wind@pas-inc.com
Subject: re: We are against the Halus Project!

To whom it may concern:

We moved to the Heron Bay community 3 years ago from east coast. After looking all over the Bay Area we chose to buy this house, mainly because of the beautiful trial and wildlife Habitat behind the community.

We are very disappointed that the city is going to approve a 110 feet tall wind turbine right at the nature Trial. What happened to the city construction regulation we have which is limit the height of such objective to 80 feet (or something close to that #)?

6,19 20

I use the trial everyday and can see the bay from my house. Last Sunday morning I sat at my back yard and counted how many people passed by my house: 27 between 8:30am to 10:30am. That means all of the people passed by my house will have to walk right by this wind turbine, potentially. I live at the end of the trial and believe if I counted from the beginning of trial the number is much higher. when was last time any of your city officers came to walk on this trial? how will you feel to see a moving object so close to you? this is not a industrial area, it is bad enough we have these electricity towers here, we have metal recycling company here making noise late at night, why do you want to add another piece ugly moving object here, even it is against city regulation? what city will gain by approving this project? have you even considered how our hundreds of residents feel? if there is one injury caused by this wind turbine, who is going to be responsible? Accident does happen!

8,12

Also this wind turbine is so close to this wildlife refuge area, do you know the impact to our birds population and species? why do we have to take the chance?

17-1

We paid premium price for our home because of the nature beauty. Overall market value has been dropped down 20% since we moved here. But we are still happy because where we are, market changed but our nature beauty has not, until this project came along. We are totally against any projects that will change this park and surrounding area. We will do whatever it takes to preserve this last prime nature land in our area!

Please help us to stop this project!

Best regards,

Jenny Chen

2386 Pacifica Ct
San Leandro, CA 94579
Tel: 510-878-2738

Subject: RE: Halus WInd Turbine
Date: Monday, July 30, 2012 11:27:21 AM PT
From: EPenaranda@sanleandro.org
To: estefanita@aol.com

Stephanie L'Archuleta –

The City is in receipt of your email. They will be provided to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Best regards.
Elmer Penaranda
Planning Services Division
City of San Leandro

From: Stephanie L'Archuleta [mailto:estefanita@aol.com]
Sent: Saturday, July 28, 2012 8:49 AM
To: Penaranda, Elmer
Cc: wind@pas-inc.com
Subject: Halus WInd Turbine

Dear Mr. Elmer Penaranda,

18,19,20 2,5,6 I am seriously concerned about potentially disastrous effects on our San Leandro and entire Bay Area Shoreline. The Halus Company seeks a zoning variance to build a 104 foot tall wind tower, with over 40 feet radius rotating blades, immediately adjacent to the largest (~300 acres) East Bay Shoreline Wildlife Habitat, where over 3 dozen federally and state endangered birds reside. The close proximity or this wind tower to these precious and fragile birds, is a direct threat to their survival.

17-3,6 This single wind tower, not only threatens San Leandro protected habitat, but is precedent setting. It will be the first wind tower on the Bay Area Shoreline. Once it is built, it is just a matter of time before many more wind towers are built all around the Bay, littering our pristine Bay Area Shoreline with white, towering wind mills, and destroying our magnificant wildlife ecosystems. Future builders would easily cite prior approval of the Halus Wind Tower, with its closeness to endangered species' protected havens, to justify the unbridled erection of more perilous wind blades. Our lovely Bay Area shoreline panorama will be at great risk of looking like the Altamont Pass. Please don't let this destruction begin in our beautiful Heron Bay wetlands.

3, I am not against wind energy. I am against poorly located wind towers that directly risk the lives of defenseless, imperiled, and voiceless aerial species. The Halus turbine will be built in a designated industrial zone, with about 300 acres of protected habitat to it's immediate west, and densely populated residential areas abutting to its north.

1, 20, 17-1, 17-3 The City of San Leandro has not required a full Environmental Impact Report (EIR). Instead, the City Council has accepted a cursory biological report (less than 20 pages long) to rationalize allowing the wind tower at the shoreline. I have read this report, which inadequately addresses the unique features of a wildlife habitat area where over a million birds rest and nest throughout the year. The City Council also ignored the wind tower's eyesore quality, negative impact on home values, and potential Bay Area wide precedents. In addition, human health and safety issues were not studied at all. Regarding human safety, in some countries, zoning laws require over 4000 feet wind tower setbacks from homes.

1, 17-3 Please don't let this project proceed without a full EIR. Given all that is at stake for the City of San Leandro and the entire Bay Area Shoreline, I hope you agree that it is both reasonable and unquestionably necessary to require full EIR completion regarding the proposed Halus Wind Turbine Project. A full EIR ensures that San Leandro can credibly establish the most well-informed and objective decision regarding a first of its kind wind turbine.

With sincere gratitude for your consideration,

Stephanie L'Archuleta
Concerned San Leandro Resident & Bay Trail User

Subject: RE: Halus Wind Turbine Tower
Date: Monday, July 30, 2012 11:30:11 AM PT
From: EPenaranda@sanleandro.org
To: mmhuang@hotmail.com

Ms. Min Mei Huang, Mr. Jiming Duan, and Ms. Jennifer Duan –

The City is in receipt of your email. It will be forwarded to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Best regards,
Elmer Penaranda
Planning Services Division
City of San Leandro

From: Min Mei Huang [mailto:mmhuang@hotmail.com]
Sent: Saturday, July 28, 2012 5:07 PM
To: Livermore, Kathleen; Liao, Thomas; Penaranda, Elmer
Cc: wind@heronbayhoa.org
Subject: Halus Wind Turbine Tower

7/28/2012

Subject: Halus Wind Turbine in San Leandro

Dear Kathleen Livermore, Tom Liao and Elmer Penaranda,

My concerns about the Halus Wind Turbine Project are:

My house is located next to the creek near the Grant Ave. San Lorenzo.

When I bought and moved into this house ten years ago, the biggest attraction to me was the natural life surrounding with wild life habitat.

20,18 The Halus Project is located immediately next to my house. This really upsets my family. It will not be compatible to the largest East Bay Protected Wildlife Habitat with over three dozen federally protected endangered bird species. I worry that the turbine will endanger the birds that live on the shoreline.

6,11 This wind turbine project is an eyesore to the San Leandro Bay Trail. As I walk down to the bay trail, I do not want to see a wind turbine, which may open the door for more wind turbines that will not be good for the beauty of the bay and the bay trail.

17-2, 17-1,22

It is too close to densely populated residential neighborhoods, has unknown health and safety effects, decreases nearby home values, and wind turbines have caught on fire which could be easily spread throughout the grasslands. Wind turbines have been associated with Wind Turbine Syndrome. We don't want San Leandro to be the test case for this potential health threat.

I am for green energy, but I stand with everyone against poorly located Wind Towers that needlessly risk the lives of defenseless and endangered bird species and may pose unknown risks to human health and safety.

Please stop this Wind Turbine project near our Heron Bay residential area.

Thank you very much for kind attention and favorable considerations.

Sincerely,

Ms. Min Mei Huang, (wife)

Mr. Jiming Duan, (husband)

Miss Jennifer Duan (daughter)

15682 Anchorage Drive, Heron Bay, San Leandro, CA 94579

Subject: RE: Halus Wind Turbine Tower
Date: Monday, July 30, 2012 11:35:07 AM PT
From: EPenaranda@sanleandro.org
To: larahv@hotmail.com

Hong Dalisay –

The City received your email. It will be forwarded to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Best regards.
Elmer Penaranda
Planning Services Division
City of San Leandro

From: Lara Dalisay [mailto:larahv@hotmail.com]
Sent: Saturday, July 28, 2012 10:55 PM
To: Livermore, Kathleen; Liao, Thomas; Penaranda, Elmer
Cc: wind@pas-inc.com
Subject: Halus Wind Turbine Tower

To Whom it May Concern,

Please do not allow the Halus Wind Turbine Project to move forward in the Heron Bay area or anywhere near our precious costal bay regions.

20 My husband and I moved to Heron Bay a year ago and have enjoyed the natural bird habitat and open wildlife preserve. By having the Halus wind turbine project to move forward would be a threat to the bird sanctuary for the birds as well as set precedence for other Wind Turbine companies to come and build in our area. Soon our area will look like Altamont Pass.

Also, I have heard that the Halus company takes old wind turbines and refurbishes them. I don't feel safe knowing that they might fail and break apart with parts flying in the area. I normally support green efforts but not at the risk of our wildlife birds and safety.

I ask that you not consider Halus Wind Turbine Project as a business we should have in our community and think of what is best for the neighborhood community and wildlife preserve.

Sincerely,
Hong Dalisay
2301 Pacific View Court
San Leandro, CA 94579

Subject: RE: Halus Wind-turbine Project
Date: Monday, July 30, 2012 11:44:06 AM PT
From: EPenaranda@sanleandro.org
To: Rodh5252@aol.com

Rod Harryman –

The City is in receipt of your email. It will be forwarded to the Board of Zoning Adjustments (BZA). Thank you for your comments. Your petition can be emailed or mailed to me at the City.

Sincerely,
Elmer Penaranda
Planning Services Division
City of San Leandro
835 East 14th Street
San Leandro , California 94577

From: Rodh5252@aol.com [mailto:Rodh5252@aol.com]
Sent: Sunday, July 29, 2012 10:35 PM
To: Cassidy, Stephen; Gregory, Michael; Reed, Ursula; Souza, Diana; Starosciak, Joyce; Cutter, Pauline; lee@shininglee.com; chouston3917@yahoo.com; rmendieta@att.net; janeannabelee@sbcglobal.net; toogr8fltm@sbcglobal.net; pg.daly@sbcglobal.net; anetpalma@comcast.net; Prola, Jim; ggas@goldengateaudubon.org; mwelther@goldengateaudubon.org; Livermore, Kathleen; Liao, Thomas; Penaranda, Elmer
Cc: sfbaynwrc@fws.gov; secretary@resources.ca.gov; director@dfg.ca.gov; wind@pas-inc.com
Subject: Re: Halus Wind-turbine Project

To whom it may concern:

We were (first of July) called by the Heron Bay Homeowners Association to discuss and review proposed plan by Halus Co. to build a 108 foot tower (windmill) within a few hundred feet of nature trails and the Protect Wildlife Habitat.

14,20 Presenting the project and introducing the President of Halus ware three staff members of San Leandro City. They presented Halus as a green company that was dong R&D for the wind turbines they sell. Not true! They are a low tech scrap dealer. They buy used turbines that were manufactutued by large corporations, such as GE, etc. These turbines are being replaced by newer and more efficient technologies. Halus buys these used turbines very cheap. Once refurbished they do have a useful life for customers that want to be energy self-sufficient at a reasonable cost. Their primary customers are farmers, ranchers, and residence that live in rural areas. Halus wants to build the windmill where proposed to use the energy for its company. That may be true, however, the real reason for building it where proposed is strictly for marketing purposes. Having it close to his facility and near a Protect Wildlife Habitat and residential area,

certainly gives the impression of wind-turbines being environmentally friendly. Great marketing!

I walk the trail every day. During my walks I got over 150 signatures from people I spoke to that signed the petition to be submitted to the city council requiring an environmental implant study for the project. None of the people that signed the pet ion were aware of the project. None were for it and some were outraged that the city would allow such a project. The majority of people were from all over San Leandro, many from Hayward and Oakland.

To my knowledge the city only contacted 4 homeowners that live within 350 feet of the project. This Protected Wildlife Habitat and its trails are used by hundreds of people, maybe thousands annually. The council should have run announcements in the local paper to alert those that use the trails; they could have provided the city with important feedback.

I'M not sure what the city of San Leandro was trying to accomplish but they almost succeeded granting a permit for something that should have never been considered. . I was one of approximately 40 homeowners that attended a meeting one day before the city was grant approval for Halus to proceed with the wind turbine project

Halus has presented themselves as a green company that is doing R&D to improve the technology of wind turbines. Further, they plan on using the energy generated from the windmill to supply their company with green efficient electricity. This is true. Halus is a low tech scrap dealer. They buy old tech wind turbines refurbish them and resale them to customers that want energy self sufficiency. These customers are located in rural America; farmers, rancher small business and homes in a country setting.

Halus, I'm sure, is successful as there is a need for wind turbines. However, he would be unable to provide the name one city or customer that has installed a 110 foot tower within a few hundred feet of a nature trails, Protected Wildlife Habitat or, a densely populated residential area such as Heron Bay.

For the city council or its staff to even consider such an approval for the Halus project is irresponsible.

Reasons for granting a permit to Halus:

1. Good for their business

Reasons for not granting permits:

29 1. To close to Protected Wildlife Habitat

29 2. Flyway for ducks and geese

17-1 3. Affect the property values

17-2 4. Unknown health effects on humans in close proxcimity.

29 5. Many endangered species could be negatively effected

6. Does not fit with the natural environment, eyesore

17-3 7. Opens the door for other ill conceived projects that would negatively impact the residence and the environment

Thank you in advance for your consideration of the above.

Rod Harryman
2386 Pacifica Ct
San Leandro, CA 94579
Tel: 510-878-2738
Cell: 443-254-4945

Subject: RE: Public Comment on Proposed Halus Wind Turbine Project
Date: Tuesday, July 31, 2012 10:29:51 AM PT
From: EPenaranda@sanleandro.org
To: fredandkim1996@att.net
CC: KLivermore@sanleandro.org, TLiao@sanleandro.org

Frederick and Kimmerly Simon -

The City has received your email. It will be provided to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Sincerely,
Elmer Penaranda
Planning Services Division
City of San Leandro

-----Original Message-----
From: fred simon [mailto:fredandkim1996@att.net]
Sent: Tuesday, July 31, 2012 9:10 AM
To: Penaranda, Elmer
Cc: Livermore, Kathleen; Liao, Thomas
Subject: Public Comment on Proposed Halus Wind Turbine Project

Dear Mr. Elmer Penaranda,

My wife and I are writing this response to be included in the official public comment on the Halus Wind Turbine proposed for construction in San Leandro. We are seriously concerned about the potential negative effects on the residents of San Leandro and their property, as well as the Bay Area Shoreline and Wildlife. We are also concerned about the inadequate environmental documentation and public review time given for a project of this magnitude; the first of its kind in the entire Bay Area shoreline and within such close proximity to Bay Area residential homes.

My wife and I are supportive of green energy to protect our families and planet from pollution; however, the specific green energy project must be fully evaluated for its potential negative impacts to people and the surrounding habitat prior to implementation.

1 We request the City of San Leandro require the Halus Company to complete a Full Environmental Impact Report to adequately address the potential negative effects on the residents of San Leandro and their property, as well as the Bay Area Shoreline and Wildlife. We oppose the proposed Hauls Wind Turbine Project as presented to the residents of San Leandro.

Regards,

Frederick and Kimmerly Simon
15670 Atlantus Ave.
San Leandro, CA 95479

Subject: RE: Grant St. Wind Turbine
Date: Tuesday, July 31, 2012 4:12:02 PM PT
From: EPenaranda@sanleandro.org
To: sirrolandphillips@gmail.com

Roland Phillips –

The City is in receipt of your email. It will be provided to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Regards.
Elmer Penaranda
Planning Sevices Division
City of San Leandro

From: Roland Phillips [mailto:sirrolandphillips@gmail.com]
Sent: Tuesday, July 31, 2012 10:51 AM
To: Penaranda, Elmer
Subject: Grant St. Wind Turbine

1,2,5 29

I do not believe the memorandum from ESA to Louis Riguad provides strong enough evidence that the construction of a wind turbine will **not** have a significant effect on the avian species of the area.

The summary section of that memorandum states that: "the turbine's location create a limited biological risk." Then, it goes on to state that: "Based upon the **comparison** of the proposed project with available data, it is estimated that the small turbine would result in 0.152 bird deaths per year."

1,2,5, 29,19, 25

The report never mentions what "available data" was used to arrive at this 0.152 figure. This indicates that the data from another location, not site specific, was used. I do not find it plausible that the 0.152 figure is a reliable estimate.

Essentially, the report does not provide convincing evidence that the turbine will not have a significant effect on avian life in the area. Particularly, in light of the fact that the summary also states: "Unfortunately, there is a shortage of information on bird and bat behavior, migratory bird routes, and ways in which topography, weather, time of day, and other factors affect bird and bat mortality."

I do not understand how there can be a shortage of information, and a three-figure-decimal-estimate possibly equate.

Subject: RE: Halus Wind Turbine Tower
Date: Tuesday, July 31, 2012 4:15:42 PM PT
From: EPenaranda@sanleandro.org
To: mwyatt79@yahoo.com
CC: KLivermore@sanleandro.org, TLiao@sanleandro.org

Misha Wyatt –

The City is in receipt of your email. It will be forwarded to the Board of Zoning Adjustments (BZA). Thank you for your comments.

Elmer Penaranda
Planning Services Division
City of San Leandro

From: M. Wyatt [mailto:mwyatt79@yahoo.com]
Sent: Tuesday, July 31, 2012 2:15 PM
To: Livermore, Kathleen; Liao, Thomas; Penaranda, Elmer
Subject: Halus Wind Turbine Tower

Dear Kathleen, Tom and Elmer,
As a thirteen year resident of Heron Bay and San Leandro, I'm writing you about my concern for the upcoming project entitled, "Halus Wind Turbine Tower." When I discovered this pending project, my immediate response was to do research. Do my dismay, there was little objective information about it, how it would impact my residential community, affect the natural preservation efforts or recreational activities in the area.

17-1, 25

This is somewhat disarming, because I support ecologically friendly activities on multiple levels. However, this project doesn't appear to have unbiased scientific and economic cost benefit analysis available. Therefore, I am requesting before any approval to proceed there is a proper environmental impact that includes a cost benefit analysis (business, residential and recreational), risk and liabilities, mitigation efforts, short and long term evaluations and any historical data on building such a structure within a residential and recreational area.

If you wish to contact for any reason relating to the "Halus Wind Turbine Tower", please call me at 415.735.7813 or via email.

Regards,

Misha Wyatt
Heron Bay Resident

CARLOS P. OCAMPO
2340 Riverside Ct.,
San Leandro, CA 94577

27 July 2012

Chair Catherine Viera Houston
Vice Chair Rene Mendeita
Jane Ann Abelee
Philip Daly
Janet Palma
Lee Thomas
Board of Zoning and Adjustments
835 E. 14th Street, San Leandro, CA 94577

Subject: **Halus Wind Turbine in San Leandro**

Dear **Chair Catherine Viera Houston**
Vice Chair Rene Mendeita
Jane Ann Abelee
Philip Daly
Janet Palma
Lee Thomas

I am writing to you because of the disadvantages of having a **Wind Turbine** in our neighborhood in San Leandro

I respectfully request your support for the City of San Leandro to require a full Environmental Impact Report (EIR) of the Proposed Halus Wind Turbine Project. Thus far, San Leandro City Council members have denied concerned San Leandran's requests to complete a full EIR.

My concerns about this project includes the following disadvantages:

1. **The strength of the wind is not constant and it varies from zero to storm force. Meaning that wind turbines do not produce the same amount of electricity all the time. There will be times when they produce "*no electricity*" at all.**

2. **Many people feel that the countryside should be left untouched, without these large structures being built. The landscape should left in its natural form for everyone to enjoy.**

23, 3. ***WIND TURBINES* ARE noisy. Each one can generate the same level of**

noise as a *"family car"* travelling at 70 MPH.

2

4. Many people see large wind turbines as unsightly structures and not pleasant or interesting to look at especially in a populated neighborhood like ours. They disfigure the countryside and are generally ugly.

5. When *"WIND TURBINES"* are being manufactured some pollution is produced. Therefore wind power does produce some pollution.

6. Large wind farms are needed to provide entire communities with enough electricity. For example, largest single turbine available today can only provide enough electricity for 475 homes, when running at full capacity. HOW MANY BE NEEDED TO A TOWN OF 100,000 PEOPLE??

Please let **Mayor Cassidy of San Leandro, the San Leandro City Council Members, the San Leandro Board of Zoning Officials, etc** know that you wholeheartedly support requiring a full EIR from the Halus Company regarding the Proposed Wind Turbine Tower in San Leandro before the July 31, 2012 comment period deadline.

Sincerely Yours,

San Leandro Resident
Resident, Bay Trail User, Concerned Bay Area Resident

Mary Lavodnas
39030 Levi Street
Newark, CA 94560

San Leandro City Officials,
835 East 14th Street
San Leandro, CA 94577

Re: The Proposed Halus Wind Turbine in San Leandro

Dear San Leandro City Officials,

17-3 I am strongly against the proposed Halus Wind Turbine. It will be the first wind mill on the Bay Area shores that will give birth to a multitude of wind turbines all around the Bay. I do not want to open the door to our natural Bay Area beauty turning into hideous wind farm blight. Once that happens, who would ever want to walk their dog in the second Altamont Pass?

3, 20 I walk my dog in the San Leandro Bay Trail right next to where this tower is planned to be. There are thousands upon thousands of graceful and precious birds flying there. I can't imagine that the birds would be safe with blades whirling around in their flight paths. I certainly don't want to be around the gruesome scene when one of those adorable birds collides with wind mill blades. In fact, if this wind mill is built, I can't imagine ever using the San Leandro Bay Trail again because of how ugly the tower will be and the potentially obscene bird mutilation I may witness.

17-6 Plus, I don't believe these wind towers are safe being so close to people and wildlife. If it catches on fire, no one can put out such high flames. So, the wind could easily carry embers to the marshland and homes nearby. There is only 1 road out of that neighborhood, so a fire would just be a total catastrophe.

I urge you to stop this wind tower from ever being built!

Sincerely,
Mary Lavodnas

Mary Lavodnas
Bay Trail Walker

Tony Ferreira
2232 Charter Way
San Leandro, CA 94579

Dear Mayor and City Council Members:

As I walk the bay trail, I do not want to see a wind turbine. Also, I think

20 that the turbine will endanger the birds that live on the shoreline.

17-3 Also, this may open the door for more wind turbines that will not be good for

the beauty of the bay and the bay trail.

Please stop this project.

Sincerely,

Tony Ferreira
San Leandro Resident & Bay Trail User

Enkhargai Arslan
2232 Charter Way
San Leandro, CA 94579

Subject: Halus Wind Turbine

Dear Mayor & San Leandro B.Z.A.:

3.17-1
17-2

I think it is too close to our residential area. Also, it will decrease our home values, have noise and discomfort. There are too many unknown factors that may harm human health, property, and environment.

It will just not look good on the shoreline with the lovely wildlife and wetlands that they belong to.

Sincerely,

Enkargai Arslan
San Leandro Resident & Bay Trail User

Dear City Officials:

My concern about this project are:

20 The Halus Project immediately next to the largest East Bay Protected Wildlife Habitat with over three dozen federally protected endangered bird species.

17-1, 18 It is eyesore to San Leandro Bay Trail. It is too close to densely populated residential neighborhood, have unknown health and safety effects, decreases nearby home values, wind turbines have caught fire, which is easily spread through the grasslands. Wind turbines have been associated with Wind Turbine Syndrome. We don't want San Leandro to be the test cases for this potential health threat.

2 I am for green and wind energy, but I stand with everyone against poorly located Wind Towers that needlessly risk the lives of defenseless and endangered bird species and may pose unknow risks to human health and safety.

Sincerely,

Katherine Lan
2307 Overlook Ct
San Leandro, CA 94579

From: Mitch Huitema [mitch@misfit.com]
Sent: Sunday, November 11, 2012 3:05 PM
To: Penaranda, Elmer
Subject: Halus Project Mitigation Measures

I am writing to say that I feel that the Planning Department has done an excellent job investigating the Halas Project.

It appears that the mitigation measures laid out cover all of the important bases. Thank you for completing a well researched investigation into the potential environmental impacts.

Wind turbines have proven to be a successful way to create power without the significant negative impacts associated with traditional power generation. It is in our best interests to move toward using green energy solutions such as wind turbines, and the mitigation measures listed do respond to and account for the only scientifically proven environmental impacts associated with wind turbines.

Thanks for taking the time to do a great job on this.

Mitch Huitema

HOWARD W. KERR

15388 NORTON STREET
San Leandro, CA 94579-2129

PHONE (510) 352-1000
FAX (510) 614-7240

Elmer Penaranda
San Leandro Community Development Dep't.
835 E. 14th Street
San Leandro, CA 94577

I am firmly in favor of the Halus proposal for installation of a wind turbine, and I fully recommend Zoning approval by the BZA.

As a 61 year homeowner and resident in nearby Washington Manor, and an original proponent of housing development at Heron Bay, I urgently recommend approval of the proposed Halus wind turbine on their own industrial site on Grant Avenue.

Common sense and available research indicate no adverse impact upon the "nearby" residents. This project is also vital to the facility to test and prove some of the technical controls manufactured on site.

This is a good project proposal and it is a great new asset to San Leandro's industrial base and job base.

Howard W. Kerr

Howard Kerr, Former SL Councilman and Vice Mayor
Boardmember and past President of Washington HOA
15388 Norton Street
San Leandro, CA 94579-2129

HALUS
POWER SYSTEMS

2539 Grant Ave
San Leandro, CA 94579
Tel: (510)278-2212 • Fax: (510)278-2211
www.halus.com

Halus Wind Turbine Project – Alameda County Flood Control-San Lorenzo Creek

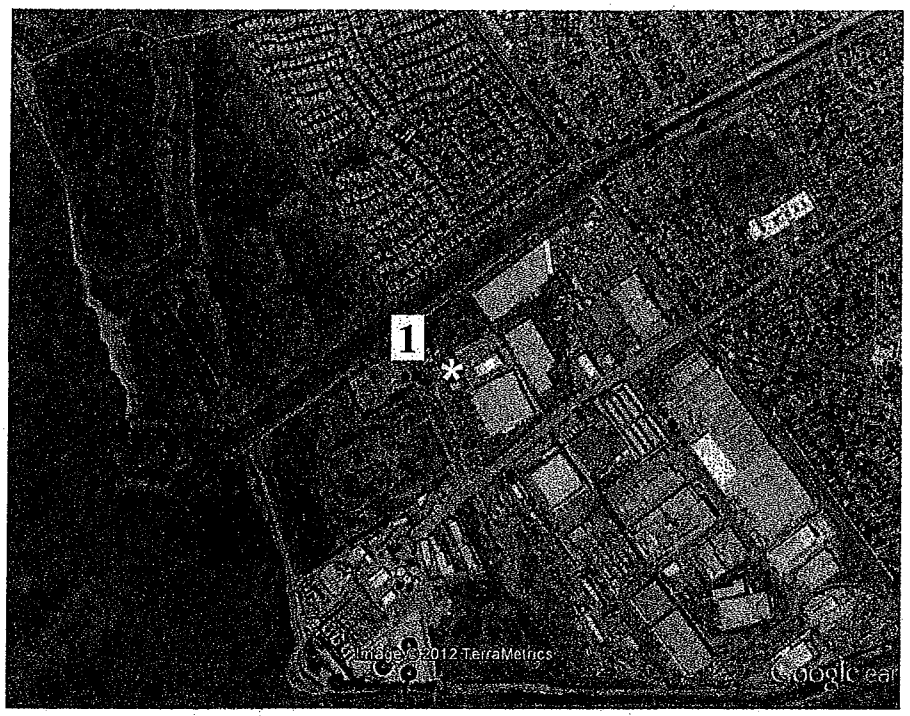


Photo Location 1 (asterisk marks turbine location)

Photo 1: Southwestern side of Heron Bay and no-trespassing notice on South side of Alameda County Flood Control/San Lorenzo Creek.

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Photo Location 2 (asterisk marks turbine location)

Photo 2: Southwestern corner of Heron Bay Property and no-trespassing notice. North side of Alameda County Flood Control/San Lorenzo Creek.

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Photo Location 3 (asterisk marks turbine location)

Photo 3: Southwestern end of Heron Bay Property and no-trespassing notice. Views significantly blocked by fencing and trees. North side of Alameda County Flood Control/San Lorenzo Creek.

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Photo Location 4 (asterisk marks turbine location)

Photo 4: Southeastern end of Heron Bay Property and no-trespassing notice. South side of Alameda County Flood Control/San Lorenzo Creek. Most views from row of 25 homes blocked by trees and fence.

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San Leandro, CA 94579
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www.halus.com

Photo Location 5 (asterisk marks turbine location)

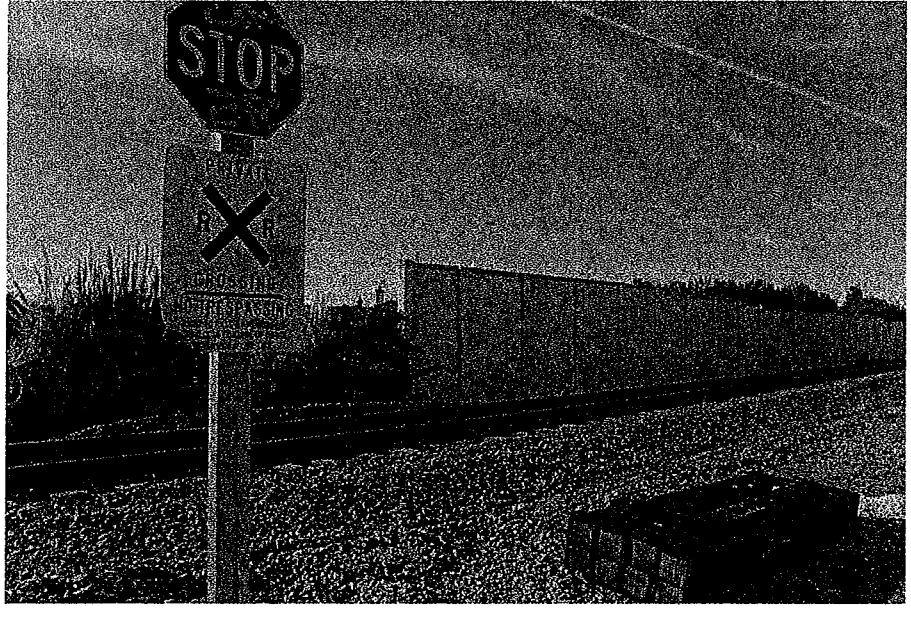

Photo 5: Southeastern corner of Heron Bay Property (west of rail road tracks) and no-trespassing notice. North side of Alameda County Flood Control/San Lorenzo Creek

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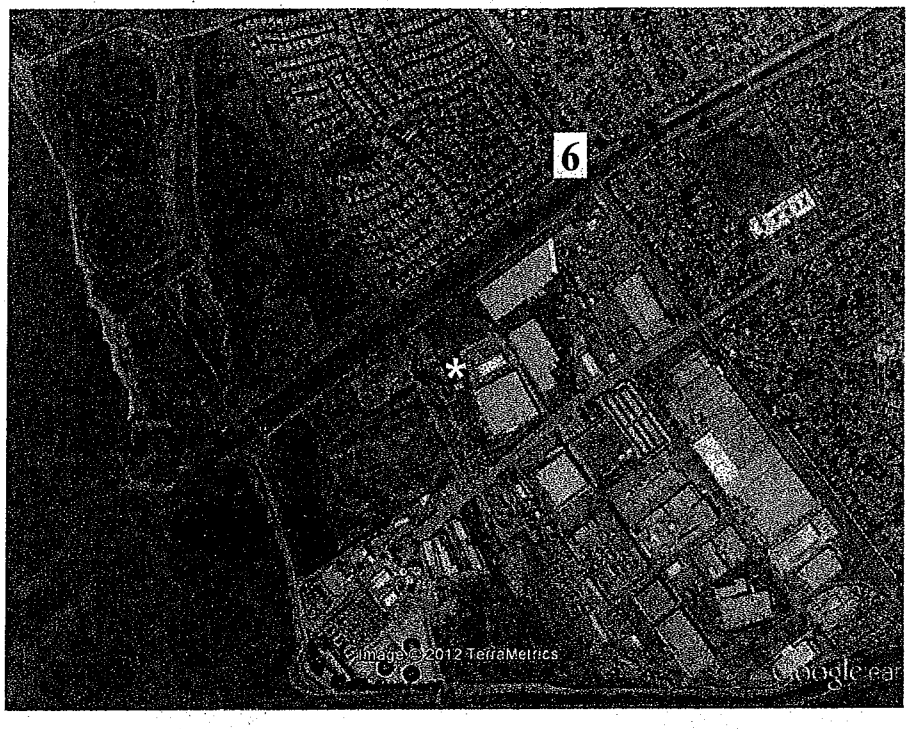


Photo Location 6 (asterisk marks turbine location)

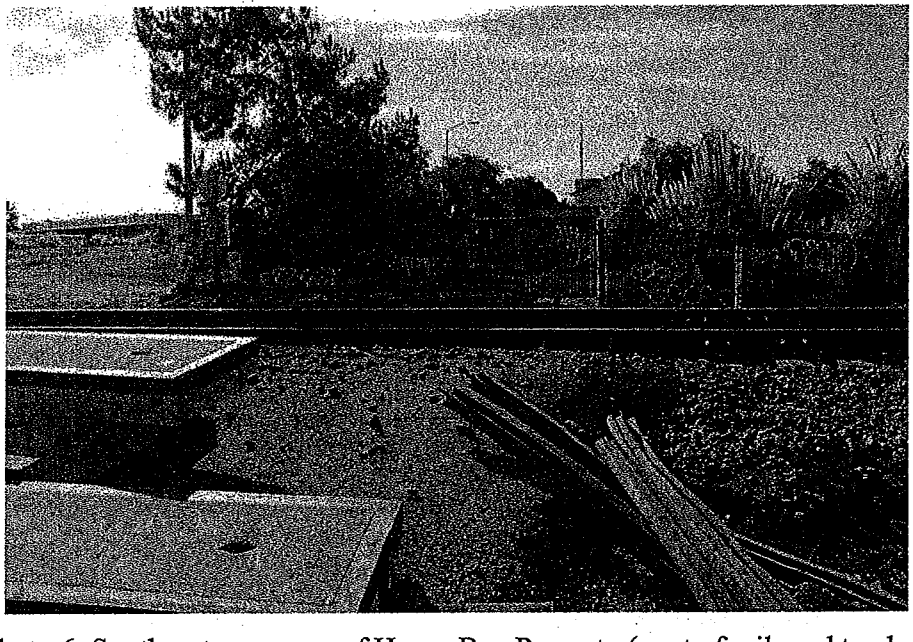
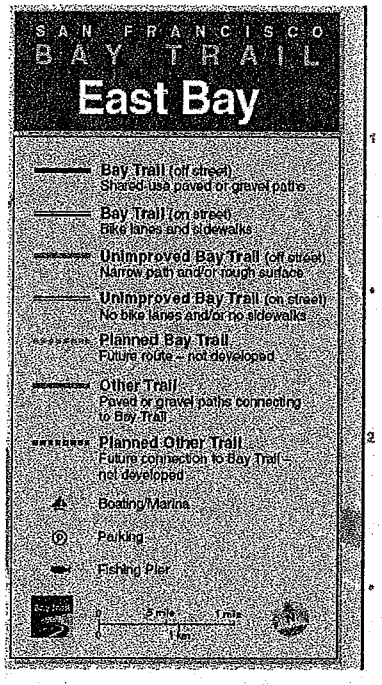
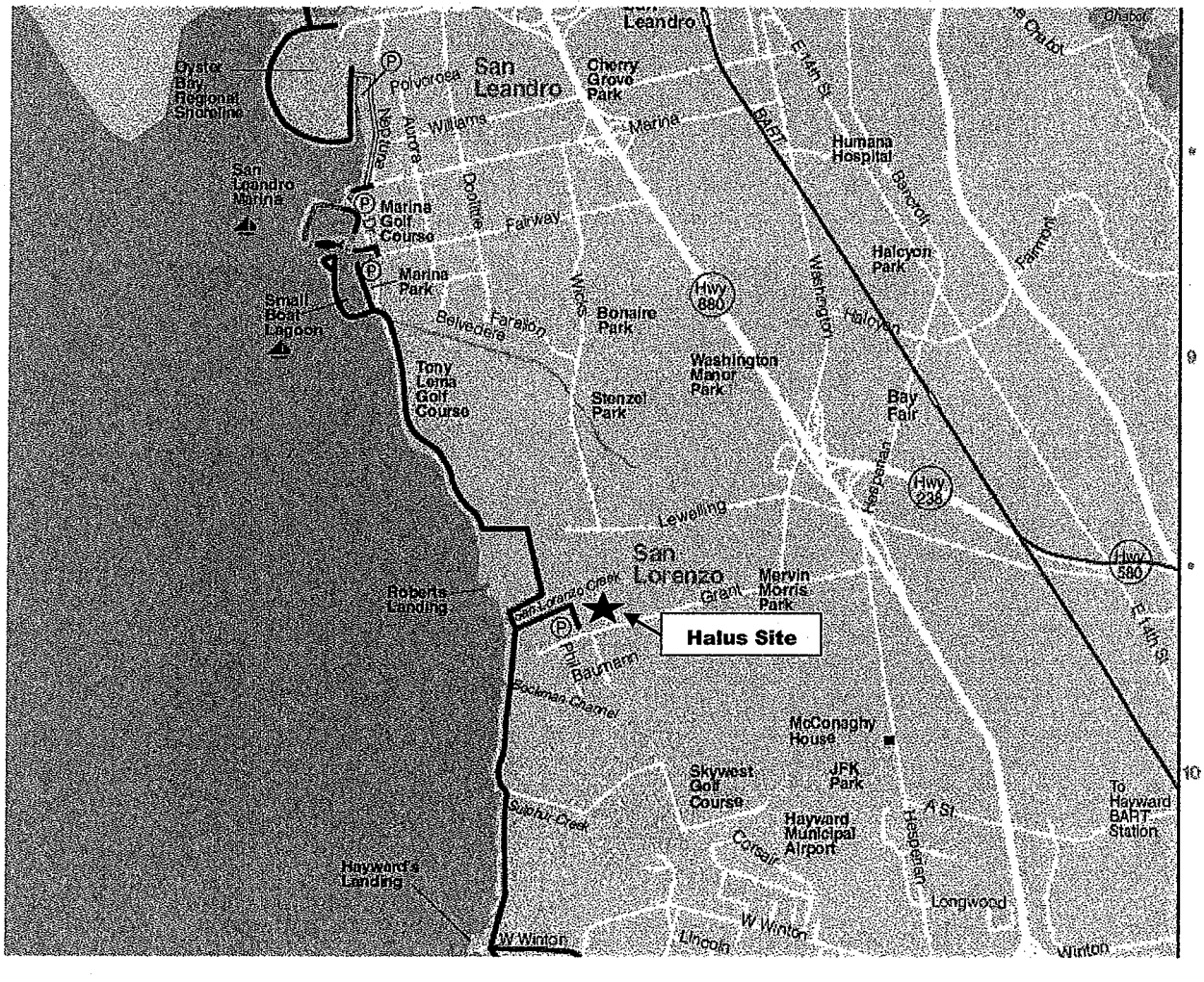


Photo 6: Southeastern corner of Heron Bay Property (west of rail road tracks).

North side of Alameda County Flood Control/San Lorenzo Creek



Response to Comments
Mitigated Negative Declaration
Halus Power Systems
Appendix 3



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CHARLES B. BENNETT (CHUCK)

Senior Managing Associate

Chuck has 41 years of experience in applied environmental studies and project management at ESA. At ESA since its beginning, Chuck serves as consultant and directs work in applied technical studies, impact analysis and environmental impact report/statement (EIR/EIS) preparation. He has directed and contributed to more than 300 CEQA/NEPA impact studies and 500 technical studies in air quality, wind effects of high-rise buildings, health and safety, noise, vibration, visual effects and electromagnetic hazard. He has directed studies of more than 50 major industrial and public works projects, such as Water Pollution Control Plants; sewage solids handling facilities; modifications to an earth fill dam; flood control works; quarries; refineries, pipelines and industrial developments. Chuck's recent CEQA and NEPA studies have focused on telecommunications projects, major hospital master plans and facilities, energy projects, including refineries with cogeneration facilities, electric transmission and distribution facilities, and on wind effects of high-rise buildings. He serves as Project Director, Project Manager, Lead Technical Investigator, and Senior Technical Consultant at ESA. His specialized wind and shadow experience includes:

Education

B.S., Mechanical Engineering, Stanford University

41 Years Experience

Publications

Published technical articles in the fields of acoustics, wind effects, particulate transport and control, quality control, probabilistic search methods, computer-graphics applications, mathematical analysis of probabilistic games, and radiation phenomena.

Wind Studies. Chuck has directed more than 250 wind-tunnel tests for high-rise buildings proposed in San Francisco, Oakland, Los Angeles, Sacramento and other California cities. For most, he analyzed and reported the effects of building-generated winds on people in nearby public spaces. He was a technical advisor to the San Francisco Department of City Planning during development of their ordinance to limit wind effects of high-rise buildings on sidewalks and public open spaces. Recently, he analyzed wind effects on pedestrians and spectators at Piers 27-29 for the new Cruise Ship terminal and the America's Cup 34 races. He also considered adverse effects of shore-side development on winds in board-sailing areas of San Francisco Bay.

He consults with building owners and architects on the design and implementation of measures to mitigate problem wind conditions in urban settings and advises planners and landscape architects in the development of landscaping suitable to the existing wind and shading conditions around proposed new or existing urban structures.

He also conducts wind-tunnel studies to measure the effectiveness of new or existing heating, boiler and fume hood exhaust systems in safely dispersing toxic air emissions in public spaces.

Solar Shading - Shadow Studies. Chuck directed several hundred solar shading studies related to open spaces and pedestrian use areas for high-rise offices and other building projects. These studies had different objectives; many were required by cities for the analysis of environmental impact, while others were to inform building owners or to assist the project architects in the design of the buildings and/or layout of amenities and landscape features. In addition to pedestrian comfort issues, such studies also can inform solar collector placement and identify potential shadow effects on homes or on historic structures and gardens. He served as technical resource and advisor to the San Francisco Department of City Planning and consulted on the City's ordinance that regulates the shadow effects of high-rise buildings on dedicated public open spaces. He worked with staff to develop appropriate methods to present shadow information to the City Planning Commission and to the public. He advised the Department on the sources of error in the shadow modeling process and recommended improvements to the calculation and reporting protocols.

EXHIBIT C

Staff Report

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City of San Leandro
Community Development Department
Planning Services Division
Staff Report

DATE: February 7, 2013

TO: Board of Zoning Adjustments

FROM: Elmer Penaranda, Planner

SUBJECT: **PLN2012-00006**; Variance to construct an 80-foot tall, single wind turbine where the blades will extend an additional 20 feet from the structure for a maximum height of 100 feet. Structures up to sixty (60) feet in height are permitted in the IG Zoning District and a variance to height is required for exceeding 60 feet. The proposed turbine would be an accessory use to the primary manufacturing/research and development use of the site; 2539 Grant Avenue; Alameda County Assessor's Parcel Numbers 80G-910-15; L. Rigaud, Halus Power Systems (applicant and property owner).

SUMMARY & RECOMMENDATION

The applicant proposes to construct an 80-foot tall, single wind turbine where the blades will extend an additional 20 feet from the structure for a maximum height of 100 feet. The turbine will operate at times when wind conditions are suitable and the blades will rotate at a maximum of 44 revolutions per minute (rpm). An avian study was performed and due to various existing and operational conditions, and types of species of birds and bats, the proposed single wind turbine poses a low potential risk to them. Noise levels for the proposed wind turbine are anticipated to not exceed 55 decibels Adjusted (dBA); the residences to the north are greater than 500 feet from the turbine and at this distance the turbine operation would have no audible tones or impulses. The proposed wind turbine will be located on a monopole in the interior of the site and in an area that is already developed with industrial buildings and uses. Discretionary review required for this proposal is a variance to the maximum permitted height and a mitigated Negative Declaration and a Mitigation Monitoring Plan. Although the proposed project requires a variance to height, the 100 foot tall turbine with large setbacks from residents and public open spaces would not have any impact on immediate adjacent properties, persons and avian species.

Staff recommends that the Board of Zoning Adjustments approve this project, PLN2012-00006, by acting on the attached Resolutions to:

1. Adopt the Mitigated Negative Declaration and the Mitigation Monitoring Program; and
2. Approve the Variance to exceed the 60 feet maximum allowable height, to a maximum of 100 feet, subject to the recommended findings and recommended conditions of approval.

APPLICANT'S SUPPORTING STATEMENT

See attached.

BACKGROUND AND SURROUNDING AREA

Halus Power Systems, a San Leandro "green technology" company, and supplier of remanufactured wind turbines, moved to its current site at 2539 Grant Avenue in 2010. The company also designs and manufactures wind turbine components including digital and mechanical control systems. In addition, the company engages in significant research and development to increase the energy efficiencies of wind technologies and equipment. This R&D is done independently and in partnership with other industry leaders and requires the testing of these new technologies on functioning turbines. Halus currently employs 10 people and has plans for significant growth in coming years.

To the north are San Lorenzo Creek, the southerly edge of the Heron Bay residential neighborhood, and State Lands Commission marshland (see attached Vicinity Map). To the east is an 11 acre industrial complex containing two buildings with various distribution and warehouse companies; the property is located in the City of San Leandro. The other properties to the east and south are outside the City boundary; they are considered unincorporated territory (Alameda County). To the east are industrial uses with some warehouse buildings but predominantly more outdoor storage yards. To the south are developed industrial properties for warehousing, manufacturing, food distribution, and an outdoor wooden pallet company. The properties to the west are developed with a warehouse building for manufacturing (adjacent to the flag lot's driveway), an Alameda County Flood Control site with outdoor storage (junk yard/salvage yard), a Pacific Gas and Electric (PG&E) substation, and the Oro Loma Sanitary District facilities (termination of Grant Avenue).

The subject site and the few parcels within the City's boundary, accessible from Grant Avenue, are in the IG Industrial General District, except the PG&E substation which is zoned PS Public and Semipublic District. The San Lorenzo Creek and the marsh areas are zoned OS Open Space District. Heron Bay homes are in the RS(PD) Residential Single-family, Planned Development Overplay District.

PROPOSAL

Site Plan

The project site is a flag-shaped lot on the north side of Grant Avenue east of the Oro Loma Sanitary District facility. It is served by a 50 foot wide and 420 foot long driveway via Grant Avenue. The site comprises approximately 4.7 acres (204,732 square feet) and is developed with a 13,382 square foot warehouse building. The proposed wind turbine will be located on a monopole in the interior of the site (219 feet from the curved rear property line; 129 feet from the westerly side property line). See attached Exhibit A – Site Plan and Exhibit B – Aerial Photograph Existing Site Conditions. Its placement would be adjacent to the northwesterly corner of the existing paving on the site. The remaining site area is used for off-street parking and the outdoor storage of turbine structures which are stored in sections and horizontally on their sides.

Elevation

The proposed single turbine structure would include an 80 foot tall pole, the turbine mounted on top of the pole, and three blades with a diameter of 20 feet each, thus making it 100 feet tall to the top rotation point. The base of the structure would be approximately six feet in diameter and taper to three feet in diameter at the top and attachment of the turbine. At the point of attachment the turbine is able to pivot towards the prevailing winds.

Operation

The turbine will operate at times when wind conditions are suitable and the blades will rotate at a maximum of 44 revolutions per minute (rpm). When there is no wind or weak prevailing winds the rotor blades will remain motionless (i.e., still, no moving parts). The turbine would operate under 55 decibels (when measured at the exterior boundaries of the property). The proposed turbine will generate a peak of approximately 50 kilowatt (kW) of electricity. The annual production is expected to be about 75,000 kilowatt hours (kWh).

The purposes of the proposal are:

1. Research, development and testing, which are the primary purpose to develop an improved product versus the products from the 1980s.
2. Generate power to operate the Halus business.
3. Promote wind as an alternative means of energy.

An example of the proposed installation is at Rio Viento Recreational Vehicle Park, Rio Vista, which is 50 minutes away from San Leandro. It has operated for approximately five years. It provides energy for the RV Park.

Initial Study and Mitigated Negative Declaration

The City prepared an Initial Study and a proposed Mitigated Negative Declaration (MND) on May 22, 2012 and provided notice pursuant to State law and the City's notification policies.

On June 20, 2012, applicant Halus Power Systems, along with City Planning staff and a member of the City Council, attended a regularly scheduled meeting of the Heron Bay Homeowners Association at the Marina Community Center. At that meeting, members of Heron Bay Homeowner's Association requested an additional 120 days to review the document. At the conclusion of that meeting, Halus agreed to an extension of the time period and offered to meet with any and all members of the Association to discuss the project in greater detail. The City extended the review period 40-days (until July 31, 2012) to provide additional time for the public to file written comments. While a number of phone and email discussions occurred, there were no subsequent meetings with Halus and officials from the Association.

Based upon feedback received at the June 20th meeting and written comments on the MND, Halus and City staff agreed to provide additional information and revise and recirculate the MND. The re-circulated MND was prepared October 11 and re-circulated for a 30-day review period ending November 13, 2012 (see attached Mitigated Negative Declaration with Initial Study Checklist Form [MND/IS] and attachments). In addition, a notice of a December 6, 2012 public hearing before the San Leandro Board of Zoning Adjustments (BZA) was provided.

In connection with the re-circulated MND, individual residents and the Association, through their attorney A. Alan Berger, provided a comment letter received and stamped by the City on November 13, 2013 and entitled: "Amended Public Comments of Heron Bay Homeowners Association and Individual Owner/Members of Heron Bay Homeowners Association in Opposition of the City of San Leandro's Intent to Adopt a Mitigated Negative Declaration for Halus Power Systems Wind Turbine Located at 2539 Grant Avenue, Within the City of San Leandro" ("Association letter"). This can be found attached to the end of the attached MND/IS.

The December 6, 2012 hearing was continued to provide additional time to consider the comments provided during the comment period. The BZA will conduct a public hearing to consider the MND and the project application on February 7, 2013.

The City of San Leandro has complied with all requirements under federal, state and local laws, including the California Environmental Quality Act. The public was afforded time required by law to review the MND and submit comments. All comments submitted have been reviewed and evaluated by the City, and are addressed in the attached Response to Comments. This can be found after the comment letters related to the MND.

STAFF ANALYSIS

Variance

Structures covering not more than 10 percent of the ground area covered by the structure may exceed the maximum height permitted height in the district in which the site is located by no more than 10 feet (Zoning Code Section 4-1658). In the IG District the maximum permitted height is 50 feet (Zoning Code Section 2-734 C.); thus the maximum permitted height is 60 feet tall. The proposed structure exceeds the 60 foot maximum height limit that the Zoning Code permits in the IG Industrial District. The maximum height for the proposed turbine is 100 feet, thus the variance is to exceed the maximum height limit by 40 feet.

Although the turbine structure exceeds the maximum height limit, the proposed turbine is situated in the center of a large parcel that gives it large setbacks to adjacent properties - over 500 feet from the nearest Heron Bay residences and over 750 feet from Grant Avenue.

Photo-Simulations

Photo-simulation studies were conducted from various points across the San Lorenzo Creek looking south to the Halus site by extending a crane to 80 feet high and placing a 20 foot long blade on top to simulate the 100 foot point to the top of the turbine's rotation. The purpose of the photo-simulations is to provide a perspective and understanding of the height of the proposed turbine and also that the turbine lacks bulk and mass such as a regular building. The photo-simulations also show that the turbine would be less in height than the existing PG&E high tension line towers that are approximately 120 feet tall to the west of the site. The turbine would not block or obstruct any views of the San Francisco Bay. The attached photo-simulations can be found included in the MND/IS as Attachment 6, dated October 8 2012. There are 11 photographs; nine of them show the simulated turbine. Photographs 7 and 9 do not include the turbine since it would not be visible from these vantage points.

Land Use

The proposed use itself would be considered a permitted use under the IG District. General Industry, and Research and Development are permitted in the IG District. The benefit of electric power for its own business makes the turbine accessory to the industrial business. The turbine is not for the purpose of generating power for sale off-site.

The proposed turbine would achieve a goal of the San Leandro Climate Action Plan Section 3.3 to increase residential, commercial and industrial renewable energy use. On-site renewable energy systems provide an important means to reducing emissions.

The proposed 50kW wind turbine is the appropriate size for small and midsize industrial users. It would generate 75,000 kilowatt hours (kWhs) in a year and this would generate a majority of energy for Halus's operations (note: 75,000 kWhs is the average use of 9-10 single-family homes.). Commercial/Industrial electric rate is $0.20/kWh. At this rate the turbine would generate electricity for Halus having a value of $15,000 per year.

Avian Report

A Technical Memorandum was prepared by Environmental Science Associates (ESA) to evaluate potential impacts to avian species resulting from construction of the wind turbine. The study concluded that bird species at highest risk in the area are populations of California clapper rails and California black rails. Any risk to these populations would be greatly reduced due to the distance from the habitat area and the rails' ground-dwelling behavior and relatively little time spent in flight. Bird fatalities are relatively infrequent events at wind farms and therefore a single wind turbine poses little risk. Higher bird fatalities occur at altitudes greater than 400 feet. Based on comparison of available data, it is estimated that the small turbine would result in 0.152 bird deaths per year. At that rate, it would take 6.5 years of continuous operation to result in the death of one bird (see the attached MND/IS with the Technical Memorandum for additional information).

Noise

The nearest residences are located more than 500 feet away and have been constructed to minimize noise from aircraft operations at the Oakland International Airport to the north. The project noise specifications provided was intended to be conservative by providing noise level data related to a much larger turbine (Vestas 225kW model) than the one proposed (Vestas 50kW). The smaller turbine will generate even lower sound levels. The evidence in the record and reasonable inferences from it show that the proposed turbine will not exceed 55dBA at the Halus property boundary line nearest the Heron Bay Homes, or any part of the property boundary line, and therefore its noise effects are well within the City's noise standard policies. This is within the acceptable range for industrial as well as residential uses.

City staff performed a site visit of the turbine in Rio Vista since it was the same model and height that is proposed. Staff observed that the sound up close to about 80 feet was not greater than the mechanical hum of a refrigerator in the home. As the distance was increased to 120 to 150 feet the sound from the turbine was not noticeable anymore. The resident manager and a resident of the RV Park stated that the turbine does not receive any complaints about its sound or operation.

Shadow Analysis

An Evaluation of Potential Shadows from the proposed wind turbine was prepared by ESA to analyze potential shadows on the homes and residents to the north and northwest of the site. The study determined that the proposed project would cast no shadows on the residences from one hour after sunrise to one hour before sunset throughout the year (see the attached MND/IS with the Technical Memorandum for additional information). In the winter solstice (when shadows are longest), shadow from the tower and the hub would reach toward the southwestern corner of the residential development in the morning, but only as far as the channel of San Lorenzo Creek. Even considering the shadow from the highest point for the rotor blades, that shadow would not reach the residences during that time interval.

Alameda County Airport Land Use - United States Federal Aviation Administration

Halus contacted the Alameda County Airport Land Use (ACLUC), and received referral to the United States Federal Aviation Administration (FAA). Cursory comments after initial contact with the two agencies is that there will not be any significant concerns from either the FAA or ACLUC being that the turbine will be less than 200 feet tall. The FAA on June 22, 2012 issued its determination that the proposed turbine is not a hazard to air navigation. The determination is attached to the Mitigated Negative Declaration.

Structural Support

Due to the Bay soils it is likely that the proposed turbine would require six, 35 feet deep piers. A hollow stem flight auger would be required to construct and install these piers. As it drills into the soil it prevents soil from sloughing into the bore; a tension rod is slipped into the bore and concrete poured into it. The structure is bolted to the piers. Prior to issuance of Building Permits a State Licensed engineer will be required to design the support for the turbine.

Additional Information – Relative Height's of Structures

The following is additional information about structures in San Leandro to put the height of the proposed turbine in perspective.

1. The PG&E towers west of the subject property are 120 feet tall.
2. The elevated BART tracks along San Leandro Boulevard are 35-40 feet tall.
3. The ridgeline to the TriNet Building at Davis Street and San Leandro Boulevard is 65 feet tall.
4. The top of the parapet on the tallest parts of the Wells Fargo Building at East 14th Street and Estudillo Avenue is over 65 feet tall.
5. The former Albertsons pylon sign, now Kaiser Permanente sign, along I-880 is 42 feet tall.
6. The Marina Square Shopping Center pylon sign is 65 feet tall.
7. The Marina Auto Mall pylon/readerboard sign is 90 feet tall

GENERAL PLAN CONFORMANCE

The proposed use conforms to the General Plan, which designates the property for General Industrial uses which are characterized by distribution facilities, research and development, and manufacturing operations which produce minimal off-site impacts. The following General Plan policies are applicable to the proposed project:

7.01 Industrial Assets - Build on the strengths of the City's existing industrial base, transportation infrastructure, and proximity to Oakland International Airport in the City's business development efforts.

7.02 Economic Diversity - Promote economic diversity and the growth of new and emerging industries. Target businesses that will provide higher-paying jobs for San Leandro residents.

7.03 Sustainable Manufacturing - Promote environmentally sustainable manufacturing practices by San Leandro businesses and focus business attraction efforts on clean, environmentally-friendly businesses.

7.06 Adaptive Reuse - Encourage private reinvestment in vacant or underutilized industrial and commercial real estate to adapt such property to changing economic needs, including the creation of flex/office space.

10.02 Off-Site Impacts - Consider the setting and context of each site when evaluating proposals for development in industrial areas. The potential for impacts on adjacent uses, including the potential for land use conflicts and increased parking demand and truck traffic, should be a key consideration.

In addition to conforming to the General Plan, the proposal also satisfies a goal the San Leandro Climate Action Plan.

Section 3.3 Goal: Increase residential, commercial and industrial renewable energy use "On-site renewable energy systems offer another important lever for reducing emissions…To encourage on-site renewable energy, one common strategy employed by other local governments is to offer expedited permitting procedures for renewable generation and green buildings."

Thus, there are a number of significant public benefits that would result from the proposed project. They include local green/high tech jobs, research and development investment that creates local revenues, and compliance with state and local mandated policies which promote green/wind energy projects to reduce greenhouse gasses, reduce dependence on foreign energy sources and reduce the overall consumption of fossil fuels.

ENVIRONMENTAL ANALYSIS

Pursuant to the California Environmental Quality Act, a Mitigated Negative Declaration has been prepared for this project (PLN2012-00006). A copy of the revised Mitigated Negative Declaration and Initial Study are attached. The initial 30-day review period from May 23, 2012 to June 21, 2012, was extended by the City 40 days to July 31, 2012. In response to comments a revised Mitigated Negative Declaration and Initial Study were recirculated for a 30-day review period from October 12, 2012 to November 13, 2012.

The recirculated IS/MND includes additional information that includes: responses to comments related to the IS/MND; photo simulations; shadow diagrams; sound information; a list of mitigation measures where the applicant and the City have worked closely with the California Department of Fish and Wildlife (CDFW) to address public concerns about avian life; and the Federal Aviation Administration's determination that the turbine would not be a hazard to air navigation. In addition, East Bay Regional Park District (EBRPD) submitted a letter stating that it had reviewed the recirculated MND and supplemental material and it had no comments on the project (see attached letter).

The analysis of the Avian Report and the Noise were covered earlier in this report and in the attached Initial Study Checklist to the Mitigated Negative Declaration. The other mitigation measure is that geotechnical and seismic design criteria must conform to engineering recommendations in accordance with the seismic requirements of the 2009 California Building Code (Title 24) and any amendments adopted in the San Leandro Municipal Code. In addition, because the project site is in a liquefaction Seismic Hazard Zone, the project applicant will be required to comply with the guidelines set forth by California Geological Survey Special Publication 117.

PUBLIC OUTREACH

A Notice of Availability and Intent to Adopt a Mitigated Negative Declaration received a 30-day noticing period due to the Initial Study and Mitigated Negative Declaration that was prepared. The normal methods of noticing for the public hearing regarding the Variance and the Mitigated Negative Declaration were conducted including a legal advertisement in the Daily Review Newspaper, the posting of placards near the subject property on nearby utility poles, the mailing notification to property owners and business owners within a 300-foot radius of the subject property within the City of San Leandro, all of the property owners in the Heron Bay subdivision, and the property owners within a 300-foot radius of the subject property outside the City and in unincorporated territory. In addition, CEQA documents for Halus have been posted and maintained in the City's website since early summer.

RECOMMENDATION

Staff recommends that the Board of Zoning Adjustments approve this project, PLN2012-00006, by acting on the attached Resolutions to:

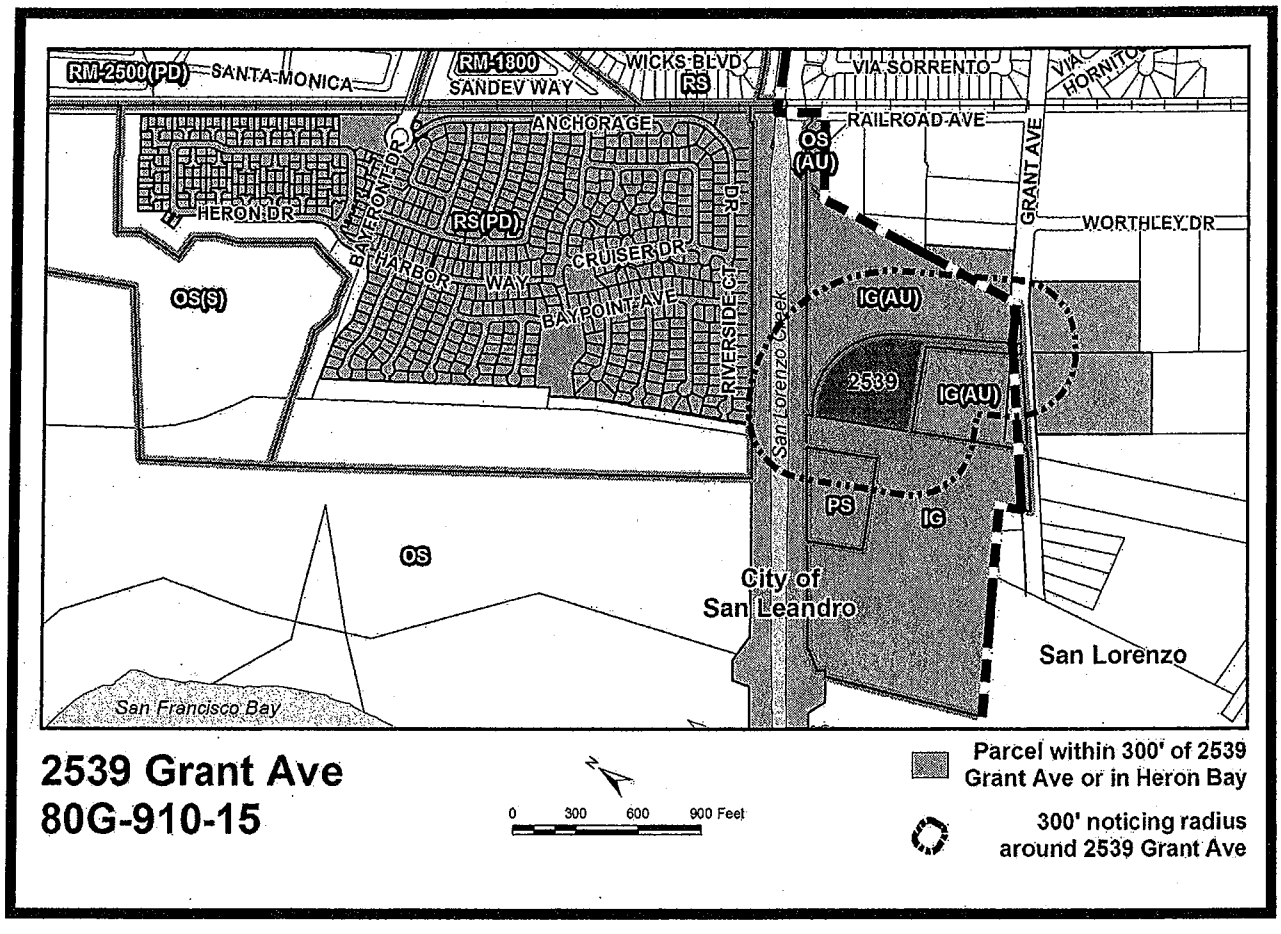
1. Adopt the Mitigated Negative Declaration and the Mitigation Monitoring Plan; and
2. Approve the Variance to exceed the 60 feet maximum allowable height, to a maximum of 100 feet, subject to the recommended findings and recommended conditions of approval.

ATTACHMENTS

Vicinity Map
Applicant's Supporting Statement
Recommended Findings of Fact
Recommended Conditions of Approval
Draft Mitigated Negative Declaration with Initial Study with technical attachments
Response to Comments
Annotated Comments to the Mitigated Negative Declaration
Draft Mitigation Monitoring Program
Additional Correspondence Received; EBRPD, January 31, 2013 and P. Tong, January 28, 2013
Exhibit A – Site Plan
Exhibit B – Aerial Photograph of Existing Site Conditions
Exhibit C – Elevations
Resolution Adopting Mitigated Negative Declaration and Mitigation Monitoring Program*
Resolution Approving Variance to Height Subject to Findings and Conditions of Approval*

*(Attachments that are cited in the Resolution are also Attachments to the Staff Report and will be included in the Final Resolution.).

City of San Leandro
BOARD OF ZONING ADJUSTMENTS
Staff Report
VICINITY MAP
Showing Existing Land Use and Zoning



Meeting Date:	February 7, 2013
File Number:	PLN2012-00006
Agenda Item No.:	7 b.
Applicant and Property Owner:	L. Rigaud, Halus Power Systems
Address:	2539 Grant Avenue
Assessor's Parcel #:	80G-910-15
Project Planner:	Elmer Penaranda

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APPLICANT'S STATEMENT

HALUS POWER SYSTEMS WIND TURBINE
February 28, 2012

Halus Power Systems is requesting approval of a Variance to allow an 80-foot tall, single wind turbine to be located in the interior of their property at 2539 Grant Avenue, San Leandro, CA.

ZONING AUTHORITY
Pursuant to Section 2-706.A.32 "Telecommunications Antennae and/or Alternative Tower Structures up to sixty (60) feet in height" are permitted in the I-G Zoning District. Therefore, a variance is required. The proposed tower would be an "accessory use" to the primary manufacturing/ R&D use in the building and on the site.

BACKGROUND
Halus Power Systems, a San Leandro "green technology" company, and North America's leading supplier of remanufactured wind turbines, moved to its current 5 acre San Leandro facility at 2539 Grant Avenue in 2010. The company also designs and manufactures wind turbine components including digital and mechanical control systems. In addition, the company also engages in significant research and development activities to increase the energy efficiencies of wind technologies and equipment. This R&D is done independently and in partnership with other industry leaders and requires the testing of these new technologies on functioning turbines.

Halus Power Systems currently employs 10 people and has plans for significant growth in coming years. It is precisely the type of company envisioned and supported by the City's General Plan, the State of California, Alameda County and East Bay Green Corridor Initiative policies. The following is brief list of some of those policies:

STATE, LOCAL AND REGIONAL POLICIES REGARDING WIND ENERGY

- California Government Code Section 65893.
  (a) The Legislature finds and declares all of the following:
  (1) Wind energy is an abundant, renewable, and nonpolluting energy resource.
  (2) Wind energy, when converted to electricity, reduces our dependence on nonrenewable energy resources, reduces air and water pollution that result from conventional sources burning fossil fuels, and reduces emissions of greenhouse gases.
  (3) Distributed generation small wind energy systems also enhance the reliability and quality of electricity delivered by the electrical grid, reduce peak power demands, increase in-state electricity generation, diversify the state's energy supply portfolio, and make the electricity supply market more competitive by promoting consumer choice.

(4) Small wind energy systems designed for onsite home, farm, and small commercial use are recognized by the Legislature and the State Energy Resources Conservation and Development Commission as an excellent technology to help achieve the goals of increased in-state electricity generation, reduced demand on the state electrical grid, increased consumer energy independence, and nonpolluting electricity generation.

- California Government Code Section 65897:
  It is the policy of the state to promote and encourage the use of distributed renewable energy systems and to limit obstacles to their use, and it is the intent of the Legislature that local agencies encourage the installation of distributed renewable energy systems by removing obstacles to, and minimizing costs of, permitting distributed renewable energy systems.

- California Public Resources Code Section 25300.
  (a) The Legislature finds and declares that clean and reliable energy is essential to the health of the California economy and of vital importance to the health and welfare of the citizens of the state and to the environment.

- California Public Resources Code Section 26001:
  The Legislature hereby finds and declares all of the following:
  (a) It is essential that the state, in cooperation with the federal government, use all practical and commercially feasible means to promote the prompt and efficient development of energy sources which are renewable or which more efficiently utilize and conserve scarce energy resources.
  (b) The promotion of energy sources which reduce the degradation of the environment and which protect the health, welfare, and safety of the people of this state is in the public interest and serves a public purpose.
  (c) It is essential that the state, in cooperation with the federal government, use all practical and commercially feasible means to promote the development and commercialization of advanced transportation technologies to conserve energy, reduce air pollution, promote economic development and jobs, and protect the health, welfare, and safety of the people of the state.

- California Public Resource Code Section 25695
  In enacting this chapter, the Legislature hereby finds and declares all of the following:
  (a) The development and commercialization of energy technologies and energy conservation is a vital element in meeting the state's energy needs.

EAST BAY GREEN CORRIDOR POLICIES

- Support local green businesses in a way that expands markets and/or removes barriers;
- Leads to Green Corridor economic development and high quality job creation;
- Connects to workforce training for a variety of wage and skill levels, providing career ladders for low income wage earners whenever possible;
- Improves the environment and quality of life by reducing greenhouse gas emissions and toxicity, improving water conservation, or conserving natural resources.

SAN LEANDRO GENERAL PLAN

- Section 7.03 Sustainable Manufacturing
  Promote environmentally sustainable manufacturing practices by San Leandro businesses and focus business attraction efforts on clean, environmentally friendly businesses.

SAN LEANDRO CLIMATE ACTION PLAN

- Section 3.3 Goal: Increase residential, commercial and industrial renewable energy use
  "On-site renewable energy systems offer another important lever for reducing emissions…To encourage on-site renewable energy, one common strategy employed by other local governments is to offer expedited permitting procedures for renewable generation and green buildings."

DETAILS OF THE PROPOSAL

To continue its leadership in the area of renewable energy and to grow in San Leandro, Halus Power Systems requires an on-site wind turbine. The turbine will allow the company to do on-site research and development to continue the development of more efficient technologies. The addition of the wind turbine will allow the company to grow in San Leandro and improve its competitive position in the wind energy field. The wind turbine will also reduce or eliminate the dependence upon fossil fuel-based sources for the energy demands of their factory and office building.

Turbine Structure Details

(Note: Exhibit A attached, includes typical design and structural details for the turbine. Precise engineering calculations will be designed by a registered structural engineer based upon a geotechnical analysis of existing soil characteristics. The design will comply with all building and seismic codes. Details will be submitted as part of the building permit application.)

Location: The proposed turbine would be located as shown on Exhibit B, with a minimum setback of 100' from the nearest property line or structure.

Dimensions:

Height: 80 feet in height to top of structure as shown in Exhibit A attached. Blades would extend 20 feet from the structure.

Diameter: The below grade concrete structural foundation will be approximately 20 feet in diameter. The foundation design loads will be designed by a registered structural engineer. The portion of the foundation that will be above ground and visible will be approximately 8 feet in diameter (to support the 6 foot diameter tower) and approximately 1 foot above finished grade.

Operations: The turbine will operate at times when wind conditions are suitable. The blades will rotate at a maximum of 44 revolutions per minute (rpm's) unlike smaller turbines with direct current (DC) power that can operate in excess of 300 rpm's. The slower blade rotation makes it operate quietly and with no impact to bird populations as the blades are clearly visible due to their slow speed. We have attached noise information for a similar (but slightly larger and louder model), which shows that the noise levels are below the standard industrial noise levels for the property at it's property lines.

Energy Generation: The proposed turbine will generate a peak of approximately 50 kW of electricity, which will significantly reduce Halus Power System's dependence on electricity created from fossil fuels. The annual production is expected to be about 75,000 kWh's, which is very close to current electrical consumption of the current operations. This is a specific goal of the San Leandro Climate Action Plan.

Noise: As noted above, the proposed turbine will operate quietly with fewer noise impacts than other allowable and ubiquitous noise-generating equipment in the I-G Zoning District. Noise levels for the proposed turbine will not exceed 55 dBA and will therefore be well below the ambient noise levels in the area and significantly lower than the noise levels illustrated on Table 6.1 and Figures 6.2 and 6.3 of the City's General Plan. In addition, the property is located near and significantly affected by the aviation noise of aircraft approaching the Oakland International Airport. [Please refer to Exhibit D for Noise Specifications]

Design /Aesthetics: The proposed wind turbine will be located on a "mono-pole" in the interior of the site. The mono-pole design reduces the profile and visibility of the structure, especially when compared to the "lattice-structure" design of the nearby electrical high tension wires.

(Another important benefit of the proposed mono-pole design is that it creates no opportunities for birds to perch and thereby reduces the risk to bird populations.)

Exhibit C includes a number of photo simulations showing the location of the proposed turbine tower from various vantage points. The applicant used a crane arm elevated to 80 feet in height. The end of the crane arm simulates the height of the top of the turbine tower. A 20-foot extension pole was placed at the end of the crane arm to simulate the length of the turbine blades. In the proposed location and given the many other tall structures including PG&E high tension lines and a recently approved cell phone antenna pole, the proposed wind turbine will create no adverse visual impacts. Further, for many, the view of a wind turbine is considered an attractive and interesting addition to an industrial areas and a reminder of the City's commitment to alternative energy sources.

Compliance with Building Codes: The proposed wind turbine will comply with all building codes including electrical, mechanical, structural, seismic and civil engineering requirements.

Compliance with applicable Federal Aviation Administration requirements: The proposed wind turbine will comply with all requirements of the Alameda County Airport Land Use Commission. An application has been submitted to the County for approval of the wind turbine. According to Cindy Horvath, Alameda County Planner, the proposed turbine is unlikely to be denied by the County or the FAA. The City's approval of the project will include a condition of approval requiring compliance with all conditions of approval of Alameda County and the FAA.

Environmental Review: The analysis of potential environmental impacts and the answers to the Environmental Checklist in Exhibit C, demonstrate that the proposed project will not have a significant effect on the environment.

ZONING

The property is located in the I-G zoning district, San Leandro's most intensive industrial zoning district.

SURROUNDING LAND USES

Properties in the vicinity include an adjacent recycling operation, warehousing and distribution facilities, the Ora Loma Sanitary District wastewater operations, a PG&E

electrical sub-station and large high-tension electrical lines. In addition, an 80-foot tall cellular telephone tower is located to the southwest. The Heron Bay residential community is located to the north across San Lorenzo Creek Storm water Drainage Channel. A row of tall trees along the property at the creek edge provides a substantial visual screen obstructing the view of the property from the homes.

ZONING APPLICATION REQUEST – HEIGHT VARIANCE

Pursuant to Zoning Code Section 2-706-32: "Telecommunications Antennae and/or Alternative Tower Structures up to sixty (60) feet in height" are permitted in the I-G Zoning District. This application is seeking a Variance to allow a tower structure of 80 feet. This tower would be an "accessory use" to the primary manufacturing/ R&D use in the building and on the site.

ANALYSIS/DISCUSSION

The variance for the proposed wind turbine is appropriate, necessary. It is an important step in meeting the City's Climate Action Plan. It is also important from a land use and economic development perspective. Halus Power Systems is an important example of "green" businesses that want to locate in San Leandro. The types of research and development that the wind turbine will promote, could result in significant growth in employment and tax revenue to the City. In order to approve the Variance, the Board of Zoning Adjustments must approve required findings. The findings for approval can be made in the affirmative as follows:

1. That because of special circumstances or conditions applicable to the subject property, including narrowness and shallowness or shape, exceptional topography, or the extraordinary or exceptional situations or conditions, strict application of the requirements of this Article would result in peculiar and exceptional difficulties to, or exceptional and/or undue hardships upon, the owner of the property;

The subject property is a "panhandle lot" with no visibility from Grant Avenue. Views from the north are obscured by the row of tall trees that have been planted along the southern property line. Access to the property is from a 576-foot long driveway. The location of the wind turbine would minimize any view from the street or nearby properties. A height of 80 feet, which is necessary for the turbine to function properly and efficiently, is easily accommodated on this particular site due to the property's shape and location.

2. That the relief may be granted without substantial detriment to the public good, without substantial impairment of affected natural resources, and without significant detriment or injury to property or improvements in the vicinity of the development site or to the public health, safety or general welfare; and

No detriment to the public good will occur as a result of this Variance. The proposed wind turbine will be located at the interior of the 5-acre site and the site

itself is virtually invisible from nearby properties. Further, it will be located a minimum of 100 feet from any property line or structure. Therefore no detriment, impairment or injury to property or the public health, safety or general welfare will result.

3. That granting the application is consistent with the purposes of this Code and will not constitute a grant of special privilege inconsistent with limitations on other properties in the vicinity and in the same zoning district.

The approval of this application is consistent with City, State and County policies related to the promotion of renewable energy sources and the City's General Plan and Zoning Code. It would not constitute a grant of special privilege since those policies would apply to all properties in the vicinity.

RECOMMENED
FINDINGS OF FACT

PLN2012-00006 - 2539 Grant Avenue
L. Rigaud, Halus Power Systems (applicant and property owner)

The Board of Zoning Adjustments hereby approves the Variance for the proposed 80-foot tall, single wind turbine where the blades will extend an additional 20 feet from the structure for a maximum height of 100 feet at 2539 Grant Avenue, Halus Power System, subject to the following findings:

Variance

1. **That because of special circumstances or conditions applicable to the subject property -- including narrowness and shallowness or shape, exceptional topography, or the extraordinary or exceptional situations or conditions -- strict application of the requirements of this article would result in peculiar and exceptional difficulties to, or exceptional and/or undue hardships upon, the owner of the property;**

   The unusual circumstances in this instance are the irregular flag shape of the lot, its sizeable land area, it is not immediately adjacent to occupied properties, and its clear and unobstructed location to the westerly San Francisco Bay winds, which make it a candidate for the proposed turbine. The flag lot moves the turbine away from street view. The large size of the lot provides adequate setbacks from adjacent properties and uses by situating it on the center of the large parcel. In addition to the large setbacks, the immediately adjacent properties are either flood control area or industrial properties which are not occupied or densely occupied by persons. The geographic location near the Bay, plus being clear and unobstructed, is ideal for the turbine to operate from the westerly on shore winds. The proposed height is optimal in operating a turbine; a lower height is not a viable option in operating the turbine. Therefore the unique and unusual circumstances make the site suitable for the new turbine to operate.

2. **That the relief may be granted without substantial detriment to the public good, without substantial impairment of affected natural resources; and without significant detriment or injury to property or improvements in the vicinity of the development site, or to the public health, safety or general welfare; and**

   The 40 foot variance to exceed the 60 foot allowable height limit would not have any detrimental impact on adjacent property or persons. It would not obstruct the availability of light or air to the adjacent properties and will pose no nuisance and no hazard to the general public. The turbine is in a fenced area within a larger fenced area in the middle of a site on private property that is not accessible to the public. Moreover, large setbacks are provided on all sides of the turbine (over 500 feet from residences to the north, approximately 750 feet from Grant Avenue, approximately 130 feet from the westerly side property line and approximately 280 feet from the easterly side property line) to prevent any obstruction of light and air to adjacent properties. In addition, the setbacks make the turbine inaudible from any of the adjacent properties. The immediate adjacent properties on all sides do not have a high concentration of persons occupying them. To the east is a junk yard/salvage yard. To the north is the San Lorenzo Creek. To the east and south are warehouse buildings.

Permitting the variance and constructing the turbine would have no affect on any natural resources. An avian study was conducted and the proposed operation of the turbine and existing biological and environmental conditions would have no significant affect on birds or bats.

3. **That granting the application is consistent with the purposes of this code and will not constitute a grant of special privilege inconsistent with limitations on other properties in the vicinity and in the same zoning district.**

The granting of this variance is consistent with the purpose of this code to provide and protect existing industrial sites and allow for continued operation of existing general industry, subject to performance standards and requirements to minimize potential environmental impacts. The variance would not constitute a granting of special privilege. This is a unique situation for a single 100 foot tall turbine which is located in the middle of a 4.7 acre site. It would have adequate setbacks of over 500 feet from residences to the north and 750 feet from the street to the south.

4. **The Board of Zoning Adjustments shall approve, conditionally approve, or disapprove applications for use permits, variances, or parking exceptions upon finding that the proposed use permit, variance, or parking exception is consistent with the General Plan, the general purposes of this Article, the specific purposes of the base or overlay zoning district in which a development site is located, and all applicable requirements of the Municipal Code.**

The proposed variance would permit a use that is consistent with the General Plan, which designates the property for General Industrial uses that are characterized by distribution facilities, research and development, and manufacturing operations which produce minimal off-site impacts. The following General Plan policies are applicable to the proposed project:

7.01 Industrial Assets - Build on the strengths of the City's existing industrial base, transportation infrastructure, and proximity to Oakland International Airport in the City's business development efforts.

7.02 Economic Diversity - Promote economic diversity and the growth of new and emerging industries. Target businesses that will provide higher-paying jobs for San Leandro residents.

7.03 Sustainable Manufacturing - Promote environmentally sustainable manufacturing practices by San Leandro businesses and focus business attraction efforts on clean, environmentally-friendly businesses.

7.06 Adaptive Reuse - Encourage private reinvestment in vacant or underutilized industrial and commercial real estate to adapt such property to changing economic needs, including the creation of flex/office space.

10.02 Off-Site Impacts - Consider the setting and context of each site when evaluating proposals for development in industrial areas. The potential for impacts on adjacent uses, including the potential for land use conflicts and increased parking demand and truck traffic, should be a key consideration.

In addition to being consistent with the General Plan, the proposal would also satisfy a goal in the San Leandro Climate Action Plan.

Section 3.3 Goal: Increase residential, commercial and industrial renewable energy use "On-site renewable energy systems offer another important lever for reducing emissions…To encourage on-site renewable energy, one common strategy employed by other local governments is to offer expedited permitting procedures for renewable generation and green buildings."

The proposed variance would be consistent with this Article 22 of the Zoning Code in that it is only being granted with respect to the height of the structure. Pursuant to the Article the variance does not extend to permit a use which is not permitted or specified in the Zoning Code. Moreover, the intention of the variance to gain additional height is to resolve a practical difficulty to effectively operate a turbine which would is a permitted use on the subject property. The additional height is necessary because effective prevailing winds to operate the turbine are at a height greater than the maximum permitted height in the industrial zoning district.

The proposed variance would be consistent with the specific purposes of the IG Industrial General District in providing and protecting an existing industrial site and allowing for its continued operation of existing general industry, and at the same time minimizes potential environmental impacts. The variance would allow a turbine to operate which is a permitted in the IG District as it was determined that its purpose is for research, development and testing for the business operating on the property. Pursuant to the California Environmental Quality Act, a Mitigated Negative Declaration (MND) has been prepared for this project. The City in its preparation of a MND has conclusively determined that the proposed project, with the incorporation of the mitigation measures agreed to by the applicant, clearly will not have a significant effect on the environment and that no substantial evidence in the light of the whole record has been presented to the City that the proposed project may have a significant effect on the environment.

The proposed variance would be consistent with the applicable requirements in the Municipal Code in that approving the variance would subject the project to all of the other City requirements such as Building Codes, Fire Codes, etc. that are not included in the Zoning Code for further ensuring health and safety, and public welfare in carrying out the construction and the operation of the turbine structure.

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CONDITIONS OF APPROVAL

PLN2012-00006 - 2539 Grant Avenue
L. Rigaud, Halus Power Systems (applicant and property owner)

I. COMPLIANCE WITH APPROVED PLANS

A. The project shall comply with Exhibits A through C, dated February 7, 2013, except as hereinafter modified. (Exhibits are on file at the City of San Leandro, Community Development Department, 835 East 14th Street, San Leandro, California, 94577).

Exhibit A – Site Plan
Exhibit B – Aerial Photograph of Existing Site Conditions
Exhibit C – Elevations

B. The applicant and/or property owner shall be responsible for assuring that any successor in interest who assumes responsibility for this zoning approval is informed of its terms and conditions.

C. Construction shall commence within one (1) year following Board of Zoning Adjustments approval of the Variance and shall be substantially completed one year after commencement of construction. For the purpose of compliance with this condition, commencement of construction shall be defined as the pouring or construction of a substantial portion of the building foundation structure. Pursuant to Zoning Code Section 5-2218, this approval shall lapse on **February 7, 2014** unless a) a building permit has been issued, coupled with diligent progress evidencing good faith intent to commence the intended use, or b) a written request for a one-year extension of the use permit is approved by the Zoning Enforcement Official.

II. PERMITTED USE

A. This approval is for a Variance to permit construction 80-foot tall, single wind turbine where the blades will extend an additional 20 feet from the structure for a maximum height of 100 feet, where the maximum allowable height is 60 feet in the industrial districts; 2539 Grant Avenue; Alameda County Assessor's Parcel Number 80G-910-15.

B. No application for amendment of the application or Conditions of Approval may be submitted or accepted for processing by the city unless (i) there is full compliance with all terms of the application and Conditions of Approval; or (ii) the Community Development Director can waive compliance with the terms of the application if they are minor in content.

C. Construction of the project shall remain in substantial compliance with the approved exhibits and plans. Any change to the project design, materials or colors shall be subject to the review and approval of the Community Development

Director who may administratively approve minor changes, or for more substantial changes, require review by the Board of Zoning Adjustments as a modification to the Variance.

D. Unless otherwise specified on the approved plans (Exhibits A - C) or in these Conditions of Approval, the development shall comply with the applicable zoning standards for the IG Industrial General District, such as but not limited to standards governing setbacks, building coverage, outdoor storage, and screening, with the exception of the variance granted to exceed the height limit.

III. MITIGATION OF ENVIRONMENTAL IMPACTS

A. All mitigation measures indicated in the Mitigated Negative Declaration shall be included and are hereby incorporated as Conditions of Approval. (They are listed below as letters B. through K.). Said mitigation measures are also listed in the Mitigation Monitoring Plan and the applicant shall comply with and implement all provisions of said Mitigation Monitoring Plan (MMP). Note: References to Department of Fish and Game (DFG) below has been changed to the California Department of Fish and Wildlife (CDFW).

B. ~~If construction must be scheduled to occur during the migratory bird and raptor nesting season (February 15 through August 15 for most birds), a~~ A qualified wildlife biologist, familiar with the species and habitats in the Project area, will be retained to conduct pre-construction surveys for raptors and nesting birds within 300 feet of construction activities. The surveys shall be conducted one week before initiation of construction. If no active nests are detected during surveys, activities may proceed. If active nests are detected then the applicant should consult with the Lead Agency and DFG on appropriate buffers. Mitigation Measure # 1a in the MMP. **(BZA amended this measure by motion at its February 7, 2013 meeting.).**

C. To reduce impacts to raptors, the applicant shall minimize small mammal habitat from occurring beneath the wind swept area of the turbine. Mitigation Measure #1b in the MMP.

D. To reduce impacts to avian species from electrocution, all electrical wires shall be placed underground or follow minimization methods established by Avian Power Line Interaction Committee. Mitigation Measure # 1c in the MMP.

E. If a state or federally listed species is killed during Project operations without the appropriate Incidental Take Permit (ITP) under the California Endangered Species Act (CESA) or the federal Endangered Species Act, the applicant shall halt all turbine operations immediately. The applicant must consult with the United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Game (DFG). Mitigation Measure # 1d in the MMP.

F. If a carcass is found that is federally threatened, endangered or protected by the Migratory Bird Treaty Act (MBTA), the information shall be reported by a qualified biologist to USFWS, Office of Law Enforcement, Renewable Energy

Officer at (650) 876-9078 within five days of its discovery. Mitigation Measure # 1e in the MMP.

G. If a carcass of a species listed pursuant to CESA or Fish and Game Code Section 3511 is discovered, DFG shall be immediately notified at (707) 944-5500. Mitigation Measure # 1f in the MMP.

H. If a species is injured as a result of Project operations, the applicant shall immediately take it to a DFG approved wildlife rehabilitation or veterinary facility, such as Sulphur Creek Nature Center, at (510) 881-6747; or Ohlone Humane Center, at (510) 797-9449. Permittee shall bear any costs associated with the care and treatment of such injured species. Mitigation Measure # 1g in the MMP.

I. A post-construction monitoring plan shall be approved by DFG and implemented within one month of initial turbine operation. Mitigation Measure # 1h in the MMP.

J. Turbine may not operate in heavy rain or dense fog. Mitigation Measure # 1i in the MMP. **(BZA added this measure by motion at its February 7, 2013 meeting for the purpose of protecting avian species.).**

K. The City of San Leandro has incorporated the 2009 International Building Code into its municipal building code (Title 7, Chapter 7-5). The project applicant would be required to comply with all applicable State and City regulations to address potential geologic hazards associated with the proposed project, including ground shaking and liquefaction. Geotechnical and seismic design criteria must conform to engineering recommendations in accordance with the seismic requirements of the 2009 California Building Code (Title 24) and any amendments adopted in the San Leandro Municipal Code. Additionally, because the project site is in a liquefaction Seismic Hazard Zone, the project applicant will be required to comply with the guidelines set forth by California Geological Survey Special Publication 117. Mitigation Measure #2 in the MMP.

L. Halus Power Systems shall secure approval of Alameda County Airport Land Use Commission and the Federal Aviation Administration prior to building permit approval of the wind turbine. Mitigation Measure #3 in the MMP.

IV. MAINTENANCE

A. The project site shall be well-maintained and shall be kept free of litter, debris, and weeds at all times; during construction, the site shall be well maintained and shall be kept free of litter, debris, and weeds.

B. Any graffiti shall be promptly removed from the property (i.e., turbine tower structure, building walls, signs, windows, paving, et cetera).

C. In the event that the use of the tower to operate a turbine is abandoned, the applicant shall obtain the necessary building permit to remove the tower and restore the site to its pre-installation condition.

V. CONSTRUCTION PROVISIONS

A. Construction activity on private property shall not commence prior to 7:00 a.m. and shall cease by 7:00 p.m. Monday through Friday, and construction activity shall not commence prior to 8:00 a.m. and shall cease by 7:00 p.m. on Sunday and Saturday. No such construction is permitted on Federal holidays. As provided in this City of San Leandro's Noise Ordinance (ORDINANCE NO. 2003 – 005), "construction" shall mean any site preparation, assembly, erection, substantial repair, alteration, demolition or similar action, for or on any private property, public or private right-of-way, streets, structures, utilities, facilities, or other similar property. Construction activities carried on in violation of this Article may be enforced as provided in Section 4-11-1130, and may also be enforced by issuance of a stop work order and/or revocation of any or all permits issued for such construction activity.

B. Construction activity shall not create dust, noise, or safety hazards for adjacent businesses and properties. Dirt and mud shall not be tracked onto Grant Avenue from the project site during construction.

C. Standard construction dust control procedures, such as wetting, daily road washing, and other maintenance functions to control emissions, shall be implemented at all times during outdoor construction. Dust generating activities such as grading, excavation, paving etc., shall be scheduled in the early morning or other hours when wind speeds are low. All construction activities entailing soil disturbance shall cease when winds exceed thirty (30) miles per hour as an hourly average.

D. The applicant shall prepare a construction truck route plan that would restrict trucks to arterial streets that have sufficient pavement section to bear the heavy truck traffic, thereby minimizing noise and traffic impacts to the community. The construction truck route plan shall be reviewed and approved by the City Engineer prior to issuance of the building permit.

E. Truck hauling activities shall be restricted to 8:00 a.m. to 5:00 p.m. There shall be no truck hauling activity on Saturdays, Sundays, and legal holidays.

F. Procedures with the highest noise potential shall be scheduled for daylight hours, when ambient noise levels are highest.

G. The applicant and/or contractor(s) shall be required to employ the quietest among alternative equipment or to muffle/control noise from available equipment.

H. All construction contracts shall include the following requirements: 1) Unpaved construction sites shall be sprinkled with water at least twice per day; and 2)

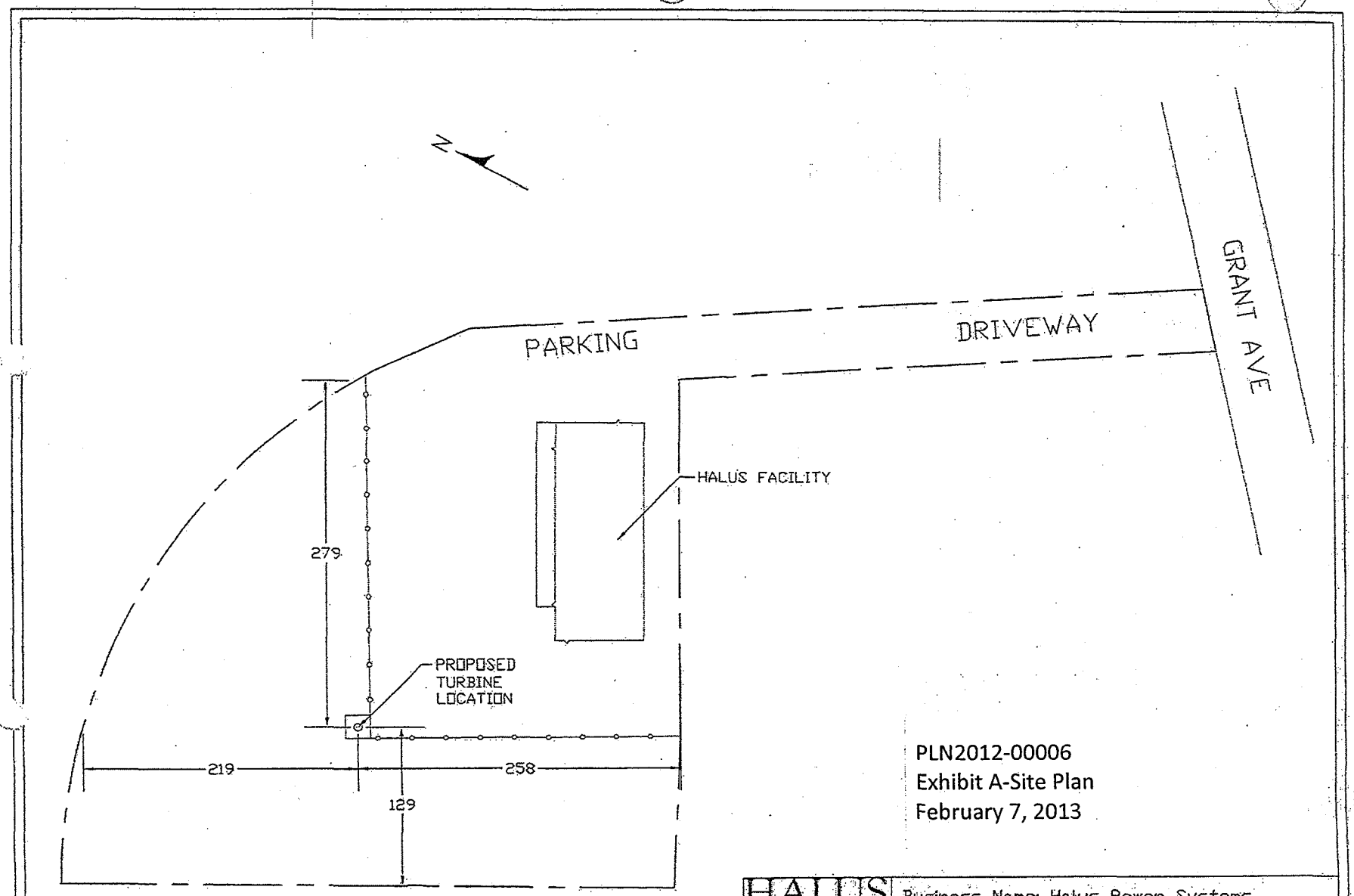
Trucks hauling construction materials shall be covered with tarpaulins or other effective covers.

VI. GENERAL CONDITIONS

A. Any sign copy on the structure shall be limited to the brand or model name in an accessory or an incidental application on said structure, sign details subject to the review and approval of the Community Development Director. The structure shall not be used for any other supplemental sign copy, such as the advertising of products, services, phone numbers, and website addresses.

B. East Bay Municipal Utility District (EBMUD) Right-of-Way, R/W 5275, is located on the northeast side of the subject property for a groundwater well and related pipeline and access. Any proposed construction activity within the right-of-way shall be coordinated with EBMUD, Water Service Planning.

C. The approvals granted by the City as a result of this application, as well as the Conditions of Approval, shall be recorded in the Office of the County Recorder of Alameda County.



SITE PLAN

SCALE (APPROX): 1" = 100'

NOTES:

1. DIMENSIONS IN FEET, UNLESS NOTED OTHERWISE.

PLN2012-00006
Exhibit A-Site Plan
February 7, 2013

HALUS POWER SYSTEMS

2539 Grant Ave
San Leandro, CA 94579
(510) 278-2212 Fax (510) 278-2211
www.halus.com

Business Name: Halus Power Systems

Facility Address:
2539 Grant Ave, San Leandro, CA 94579

SIZE	FSCM NO.	DWG. NO.	REV
A			-

SCALE: NONE | DATE: 3/1/12 | SHEET: 3 OF 4

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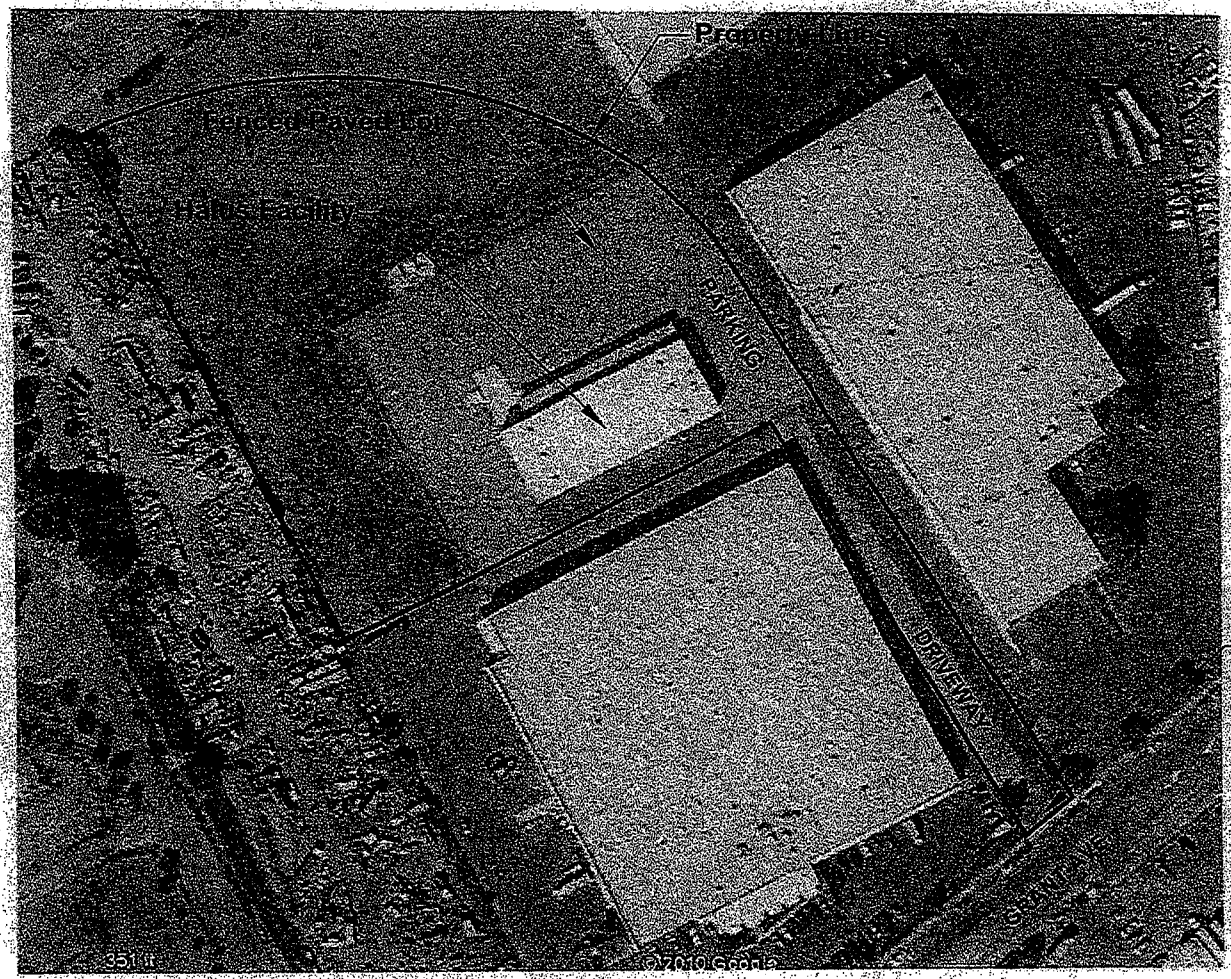
PLN2012-00006
Exhibit B-Aerial Photograph with
Existing Site Conditions
February 7, 2013



FACILITY MAP
SCALE (APPROX): 1" = 140'

HALUS POWER SYSTEMS
2539 Grant Ave
San Leandro, CA 94579
(510) 278-2212 fax (510) 278-2211
www.halus.com

Business Name: Halus Power Systems
Facility Address:
2539 Grant Ave, San Leandro, CA 94579

SIZE	FSCM NO.	DWG NO.	REV
A			-

SCALE: NONE | DATE: 3/1/12 | SHEET: 2 of 4

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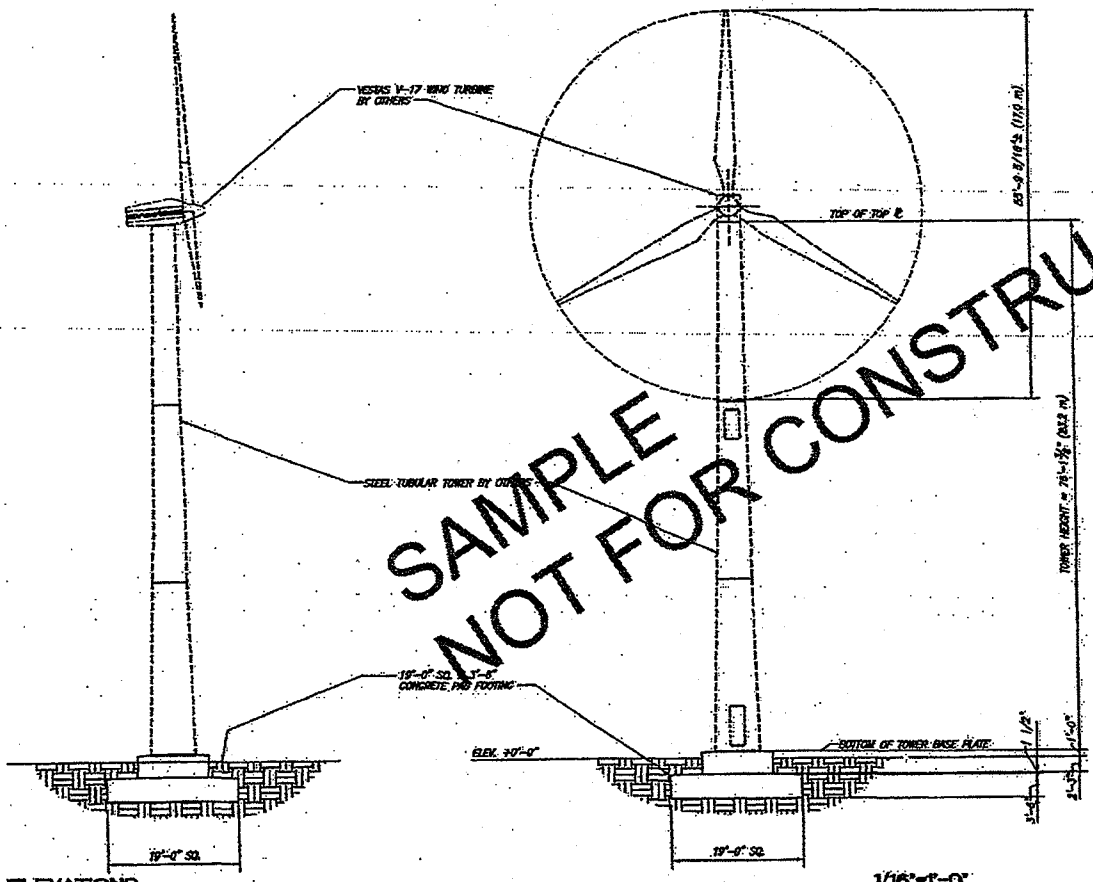
VESTAS V-17 WIND TURBINE FOUNDATION

23 METER TOWER • 3 SECTION

SHEET INDEX		
No.		TITLE
1.	S0.0	TITLE SHEET
GENERAL NOTES		
2.	S1.0	GENERAL NOTES
3.	S1.1	GENERAL NOTES
4.	S1.2	GENERAL NOTES
FOUNDATION DETAILS		
5	S2.0	FOUNDATION PLAN, SECTIONS AND DETAILS
6	S2.1	FOUNDATION DETAILS



ELEVATIONS 1/16"=1'-0"

EDGEWOOD WIND ENERGY PROJECT
EDGEWOOD, NEW MEXICO, USA
1 FOUNDATION

HALUS POWER SYSTEMS

Nestor A. Agbayani

NESTOR A. AGBAYANI NEW MEXICO 18767 PROFESSIONAL ENGINEER

SIGNATURE (OR DIGITAL SIGNATURE ON ELECTRONIC FILE)

DATE 01.27.2011

TITLE SHEET

MINNER, STINNETT, KOO & AGBAYANI
STRUCTURAL & CIVIL ENGINEERS

VESTAS V-17
WIND TURBINE FOUNDATION
23 METER • 3 SECTION

JOB NO. 11-008	DATE 2011-01-27	SHEET S0.0
DRAWN NAgbayani	CHECKED NAgbayani	
SCALE NAgbayani	APPROVED NAgbayani	

PLN2012-00006
Exhibit C- Elevations
February 7, 2013

GENERAL NOTES

SCOPE OF DESIGN:

THESE DESIGN DRAWINGS AND CALCULATIONS THAT ACCOMPANY THEM ARE FOR THE DESIGN OF THE REINFORCED CONCRETE FOUNDATION AND THE ANCHOR BOLTS.

THE FOLLOWING ITEMS ARE BY OTHERS:
THE TOWER SUPERSTRUCTURE AND ALL OTHER ITEMS ASSOCIATED WITH THE TOWER STRUCTURE SUCH AS THE TOWER INTERNAL DETAILS, ETC.

CODE DESIGN DATA (FOR FOUNDATION ONLY)

STATEMENT OF DESIGN CODE COMPATIBILITY:
THE TERM "IBC" USED HEREIN SHALL IMPLY THE FOLLOWING:

"THE STATE BUILDING CODE BASED ON THE IBC."

LOAD CALCULATIONS ARE IN ACCORDANCE WITH ASCE 7-05 FOR COMPATIBILITY WITH THE 2009 AND 2006 INTERNATIONAL BUILDING CODES (IBC). THE DESIGN IS ALSO COMPATIBLE WITH LOCAL AND STATE BUILDING CODES BASED ON THE IBC WHERE TYPICALLY THE LOCAL AMENDMENTS TO THE IBC DO NOT SIGNIFICANTLY CHANGE THE RESULTING EXTREME WIND OR SEISMIC DESIGN FORCES.

WIND DESIGN DATA: PER IBC/ASCE 7-05

NO.	ITEM			DESIGN VALUE*	SITE VALUE	COMMENT
1	BASIC WIND SPEED	V	(mph)	90	SAME	
2	WIND IMPORTANCE FACTOR	I		1.15	SAME	OCC. CAT. II
3	EXPOSURE			C	SAME	
	EXPOSURE COEFFICIENT (MAX.)	Kz		1.193	SAME	
4	FORCE COEFFICIENT FOR SOLID ROUND TOWERS	Cf		0.676	SAME	
5	DESIGN WIND PRESSURE FOR TOWER COMPONENTS AND CLADDING			N/A	N/A	
6	OTHER WIND DESIGN DATA:					
	TOPOGRAPHIC FACTOR (MAX.)	Kzt		1.0	SAME	
	VELOCITY PRESSURE (MAX.)	qz	(psf)	27	SAME	
	GUST EFFECT FACTOR	Gf		0.997	SAME	
	AIR DENSITY	ρ	(kg/m³)	1.225	SAME	

NOTES:

1. [NOT USED]
2. WIND DESIGN LOAD COMBINATIONS (FOR STRENGTH DESIGN): $U = (0.9 \text{ OR } 1.2)D + (1.10 \text{ OR } 1.35 \text{ OR } 1.6)W$
3. [NOT USED]

* ESTIMATED BY MSKA FOR FOUNDATION ONLY—TOWER DESIGN IS BY OTHERS.

EARTHQUAKE DESIGN DATA — PER IBC/ASCE 7-05

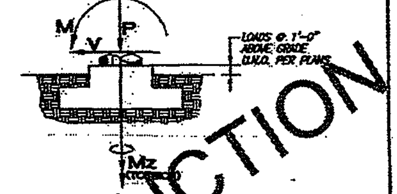
NO.	ITEM			DESIGN VALUE	SITE VALUE	COMMENT
1	SEISMIC IMPORTANCE FACTOR	Ie		[illegible]	SAME	OCC. CAT. II
2	MAPPED SPECTRAL RESPONSE ACCELERATIONS					
	SHORT PERIOD	Ss	(g)	[illegible]	SAME	
	1-SECOND PERIOD	S1	(g)	0.134	SAME	
3	SITE CLASS			C	SAME	
4	SPECTRAL RESPONSE COEFFICIENTS (AT 5% DAMPING)					
	SHORT PERIOD	SDS	(g)	0.348	SAME	
	1-SECOND PERIOD	SD1	(g)	0.149	SAME	
5	SEISMIC DESIGN CATEGORY	SDC		C	SAME	
6	BASIC SEISMIC-FORCE-RESISTING SYSTEM			NONBUILDING TUBULAR STEEL CANTILEVER MAST		
7	DESIGN BASE SHEAR	V	(kip)	7.1	SAME	
8	SEISMIC RESPONSE COEFFICIENT	Cs		0.235	SAME	
9	RESPONSE MODIFICATION FACTOR	R		1.0	SAME	See Note 1.
10	ANALYSIS PROCEDURE			RESPONSE SPECTRUM ANALYSIS		
11	OTHER:					
	TOWER FUNDAMENTAL FREQUENCY (MSKA STIFF ESTIMATE)	f	(Hz)	1.26	SAME	@ Kφ=INFINITY
	FOUNDATION ROTATIONAL STIFFNESS (MINIMUM)	Kφ	(GN-m/radian)	RIGID	SAME	

NOTES:

1. SEISMIC DESIGN LOAD COMBINATIONS (FOR STRENGTH DESIGN):
PER CODE: $U = (0.9 \text{ OR } 1.2)D \pm 1.4(E/1.4)$ @ R=1.0, 5% Damping
PER IEC: U = N/A

SERVICE (UNFACTORED) LOADS [1] AT BOTTOM OF TOWER BASE FLANGE		
	DEAD	WIND[2]
P (k)	29.6	–
V (k)	–	18.8
M (k-ft)	–	1011
Mz (k-ft)	–	0

NOTES:
[1] SPECIFIED BY OWNER/CONTRACTOR. PROVIDED BY OTHERS. TOWER STRUCTURE ENGINEER OF RECORD SHALL VERIFY SITE-SPECIFIC VALIDITY OF THESE FOUNDATION LOADS.
[2] COMPATIBLE FOR USE WITH ASCE 7-05 1.6 WIND LOAD FACTOR.



FOUNDATION DESIGN LOADS NO SCALE

SAMPLE NOT FOR CONSTRUCTION

EDGEWOOD WIND ENERGY PROJECT
EDGEWOOD, NEW MEXICO, USA
1 FOUNDATION

HALUB POWER SYSTEMS:

SIGNATURE (OR DIGITAL SIGNATURE ON ELECTRONIC FILE)

01-27-2011
DATE

GENERAL NOTES

MINNER, STINNETT, KOO & AGBAYANI
STRUCTURAL & CIVIL ENGINEERS

VESTAS V-17
WIND TURBINE FOUNDATION
23 METER • 3 SECTION

JOB NO. 11-008	DATE 2011-01-27	SHEET S1.0
DRAWN N.Agbayani	CHECKED N.Agbayani	
DESIGNED N.Agbayani	APPROVED N.Agbayani	

PLN2012-00006
Exhibit C- Elevations
February 7, 2013

GENERAL NOTES

CONCRETE

Minimum Ult. Compressive Strength @ 28 days	5000 psi
Cement	Type V or Type II Low-Alkali
Minimum Cement	6.0 Sacks/C.Y.
Maximum Water	6.0 Gallons/Sack of Cement
Water Reducing Admixture	Master Builders Pozzolith 322N or Grace WRDA with HYCOL, or equal.
Prohibited Admixture	No Calcium Chloride shall be used in the mix.
Air Entrainment	5% Air ±1%.
Maximum Slump	4"
Required Curing Compound for all Concrete	White pigmented curing compound ASTM C309, Type 2. Spray 2 heavy coats on the top. Spray the sides of the concrete after forms are removed.
Vibration	High frequency electric vibration is required for all concrete.

GROUT

Shall be non-ferrous, non-shrink grout by "Burke" or approved equal. Follow manufacturer's instructions.

REINFORCING STEEL

Deformed Bars:	A.S.T.M. No.
All Sizes	A615, Grade 60

Lap Splice Lengths:
Per "TYPICAL REINFORCING STEEL DETAILS"

Concrete Coverage for Reinforcement:
Foundations — Poured Against Earth ..... 3" Clear
Poured Against Forms ..... 2" Clear

STRUCTURAL STEEL (For Foundation Items)

Items	A.S.T.M. No.
All Plates & Other Shapes	A36
Anchor Bolts	Williams R61 Gr 75 w/heavy hex nuts
Hardened Steel Washers	F436 min. or per Williams spec.

Fabrication and erection: Conform to latest A.I.S.C. Specifications
Welding: SAW or SMAW process or equivalent
Weld Electrodes: A.W.S. low hydrogen electrodes compatible with base metal.
Welders: Shall be certified and work done in accordance with the Structural Welding Code A.W.S. D1.1; Submit Certification copies.

Surface Treatment: (On Foundation Bearing Plate)
Finish shall match steel tower finish. See tower supplier for paint specification.

COLD WEATHER APPLICATIONS

Toughness Requirements: The tower foundation can safely operate within the following service temperature ranges provided that Charpy V-Notch (CVN) impact requirements are met. Unless noted otherwise, each impact test value shall constitute the average of three specimens with no more than one value below minimum value, but in no case less than two-thirds of the minimum average value.

Above 0° F no CVN testing is required. Below 0° F the following requirements apply:

Steels for Williams R61 Grade 75 Anchor Bolts:

Zone	Minimum Service Temperature	Minimum Average Energy, ft-lbf
2	Below 0° F to −30° F	30 @ +20° F
3	Below −30° F to −50° F	30 @ −10° F

Testing Frequency: All samples shall be in accordance with ASTM A673, Frequency H and ASTM A370. The term "Heat Lot" or "Frequency H" shall denote this testing on the test reports. The size of all subsize specimens shall be reported.

Steels for Weld Material (Connecting 36 ksi Parent Materials):

Zone	Minimum Service Temperature	Minimum Average Energy, ft-lbf
2	Below 0° F to −30° F	20 @ 0° F
3	Below −30° F to −50° F	25 @ −20° F

Testing Frequency: Provide a set of impact tests for each plate thickness of complete penetration groove welds. The weld procedure specification (WPS) qualification impact tests shall be in accordance with AWS D1.5–95 Table 5.5 and Section 12 and ASTM 673 and ASTM 370. Each impact test value shall consist of the average of three specimens out of a total of five specimens, after discarding the highest and lowest value.

TESTING

Reinforcing:
Provide tension tests of all reinforcing of #8 or larger bars. Mill tests are acceptable if material can be identified.

Concrete:
Provide concrete mix design for approval prior to first concrete pour.

Provide certified weighmaster certificates for each truckload of concrete for each concrete pour.

Take 3 concrete test cylinders for each complete tower foundation to verify concrete strengths. Test the cylinders at ages of 7, 14, and 28 days.

WELDING INSPECTION (Foundation Plates)

All welding inspections shall be in accordance with AWS D1.1 Section 6. Copies of weld inspection reports shall be mailed to the Owner and Engineer.

Ultrasonic or X-ray inspection (using acceptance criteria for cyclically loaded connections) is required on all complete penetration welds where used to optionally splice foundation plates. Copies of these weld inspection reports shall be mailed to the Owner and Engineer.

Test 100% of Foundation Plate Splice Welds (if used where occur).

FOUNDATION NOTES

Soil Type: Lean clay with sand and gravel, medium stiff to hard

Maximum Design Bearing Pressure: DL only = 908 psf
DL+Wind = 2709 psf
Bottom of Footing Elevation: As shown on drawings.
Place Footings Only on Firm Bearing, not on loose soil or uncompacted fill.
Compacted Fill & Backfill Requirements: Placement and Compaction per Soils Report.
Soils Report: Terracon Report 66105068 (Dated 1/7/2010)

SOILS REPORT

The owner shall provide a soils report prepared by a geotechnical engineer for the site on which the tower will be placed. The soil shall be capable of safely supporting the tower foundation and resisting the maximum design bearing pressures noted under "Foundation Notes". If the soil will not meet these requirements, the foundation shown (see FOUNDATION PLAN, SECTIONS AND DETAILS SHEET) must be modified or redesigned to accomodate the actual soil conditions.

SHOP DRAWINGS

Shall be prepared for the anchor bolts, foundation rebar, and foundation formwork. Three (3) sets of prints and one final vellum shall be submitted to the Owner. The Owner will review the shop drawings for general conformance to the design drawings and specifications. He will either reject or approve them. Fabrication shall not begin until the shop drawings have been approved.

STATEMENT OF SPECIAL INSPECTIONS

Special Inspections [illegible]
(Refer to General Notes)

Test/Inspection [illegible] — Testing Agency (Name [illegible] filled in by Owner at [illegible] plan submittal)

1. Concrete cylinders for compressive strength tests ..... ______
2. Reinforcing steel
   a. Mill Certificates ..... ______
   b. Placement of all reinforcing ..... ______
3. Verification of excavated pad and [illegible] of [illegible] material at bottom of [illegible] ..... ______
4. Continuous inspection of concrete pour for concrete pad and pedestal ..... ______
5. Charpy V-notch impact tests for: Weld Material and Anchor Bolts ..... ______
6. Anchor Bolts (Tension Tests) ..... ______
7. Anchor Bolts:
   a. Installation & Tightening ..... ______
   b. Verify pretension in 10% (min.) of bolts ..... ______

See the next sheet for specific IBC requirements.

WORK BY OTHERS

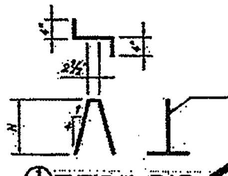
Tower design, site grading, soil investigations, and soil reports are by others. They are not provided by Minner, Stinnett, Koo & Agbayani, Structural and Civil Engineers.

GENERAL NOTES

Typical Details and General Notes apply in all cases unless specifically shown otherwise on the drawings.

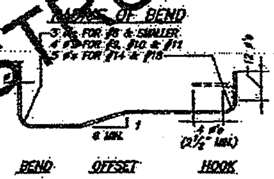
Where No Detail Is Shown, construction shall be as shown for other similar work.

No Deviations from the Design Drawings are permitted without the permission of the Engineer.



BAR	H MAX.
#6	4'-0"
#7	4'-8"
#8	5'-[illegible]
#9	[illegible]'-0"
#10	[illegible]

1/S1.1 TYPICAL BAR CHAIR DETAIL



REINFORCING PLACING TOLERANCES

1. DEPTH: ± 1/4" FOR MEMBERS 8" OR LESS IN DEPTH.
2. DEPTH: ± 1/2" FOR MEMBERS LARGER THAN 8" IN DEPTH.
3. LENGTH: ± 1"

CONCRETE: BAR LAP SPLICE LENGTHS (CLASS "B")
f'c = 5,000 psi ; fy = 60,000 psi ; 2" CONC. COVER

BAR NO.	#3	#4	#5	#6	#7	#8	#9	#10	#11
TOP BARS*	1'-4"	1'-6"	1'-10"	2'-2"	3'-2"	3'-6"	4'-6"	5'-6"	6'-6"
OTHER BARS	1'-4"	1'-4"	1'-5"	1'-8"	2'-5"	2'-10"	3'-6"	4'-3"	5'-1"

*HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST IN MEMBER BELOW BAR

2/S1.1 TYPICAL REINFORCING STEEL DETAILS

EDGEWOOD WIND ENERGY PROJECT
EDGEWOOD, NEW MEXICO, USA
1 FOUNDATION

HALUS POWER SYSTEMS
TEL: (510) 780-0691
FAX: (510) 780-0534

SIGNATURE (OR DIGITAL SIGNATURE ON ELECTRONIC FILE)
01-27-2011
DATE

GENERAL NOTES

MINNER, STINNETT, KOO & AGBAYANI
STRUCTURAL & CIVIL ENGINEERS

VESTAS V-17
WIND TURBINE FOUNDATION
23 METER • 3 SECTION

JOB NO. 11-008	DATE 2011-01-27	SHEET
DRAWN NAgbayani	CHECKED NAgbayani	S1.1
DESIGNED NAgbayani	APPROVED NAgbayani	

PLN2012-00006
Exhibit C- Elevations
February 7, 2013

GENERAL NOTES

STATEMENT OF SPECIAL INSPECTION (cont.)

The following items require Special Inspection per 2009 IBC, Chapter 17. Where the 2006 IBC is the basis for the local building code, the following items may be used without modification or adjusted accordingly where there is minor variation in requirements.

The lists are general and match the extent of the Code tables. All items are not necessarily applicable to this project. Where the local building code is based on an earlier edition of the IBC, the equivalent sections shall apply.

TOWER FOUNDATION:
TOWER FOUNDATION DESIGN IS BY OTHERS. CONCRETE FOUNDATION-RELATED ITEMS LISTED HERE ARE ONLY "SUGGESTED." FOUNDATION DESIGN DRAWINGS BY OTHERS SHALL GOVERN.

SOILS PER IBC TABLE 1704.7		
Verification and Inspection Task	Continuous	Periodic
1. Verify materials below footings are adequate to achieve the design bearing capacity.		X
2. Verify excavations are extended to proper depth and have reached proper material.		X
3. Perform classification and testing of controlled fill materials (where occurs per soils report).		X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill (where occurs per soils report).	X	
5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly.		X

TOWER FOUNDATION:
TOWER FOUNDATION DESIGN IS BY OTHERS. CONCRETE FOUNDATION-RELATED ITEMS LISTED HERE ARE ONLY "SUGGESTED." FOUNDATION DESIGN DRAWINGS BY OTHERS SHALL GOVERN.

CONCRETE PER IBC TABLE 1704.4		
Verification and Inspection Task	Continuous	Periodic
1. Inspection of reinforcing steel, including prestressing tendons and placement.		X
2. Inspection of reinforcing steel welding in accordance with IBC Table 1704.3, Item 5b.	–	–
3. Inspect bolts to be installed in concrete prior to and during placement of concrete.	X	
4. Inspection of anchors installed in hardened concrete.		X
5. Verify use of required design mix.		X
6. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	
7. Inspection of concrete and shotcrete placement for proper application techniques.	X	
8. Inspection for maintenance of specified curing temperature and techniques.		X
9. Inspection of prestressed concrete:		
a. Application of prestressing forces.	X	
b. Grouting of bonded prestressing tendons in the seismic-force-resisting system.	X	
10. Erection of precast concrete members.		X
11. Verification of in-situ concrete strength, prior to removal of shores and forms from beams and structural slabs.		X
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.		X

STEEL PER IBC TABLE 1704.3		
Verification and Inspection Task	Continuous	Periodic
1. Material verification of high-strength bolts, nuts and washers:		
a. Identification markings to conform to ASTM standards specified in the approved construction documents.		X
b. Manufacturer's certificate of compliance req'd.		X
2. Inspection of high-strength bolting:		
a. Snug-tight joints.		X
b. Pretensioned and slip-critical joints using turn-of-nut with matchmarking, twist-off bolt or direct tension indicator methods of installation.		X
c. Pretensioned and slip-critical joints using turn-of-nut without matchmarking or calibrated wrench methods of installation.	X	
3. Material verification of structural steel and cold-formed steel deck:		
a. For structural steel, identification markings to conform to AISC 360.	–	X
b. For other steel, identification markings to conform to ASTM standards specified in the approved construction documents.	–	X
c. Manufacturer's certified test reports.	–	X
4. Material verification of weld filler materials:		
a. Identification markings to conform to AWS specification in the approved construction documents.	–	X
b. Manufacturer's certificate of compliance req'd.	–	X
5. Inspection of welding:		
a. Structural steel and cold-formed steel deck:		
1) Complete and partial penetration groove welds.	X	
2) Multipass fillet welds.	X	
3) Single-pass fillet welds > 5/16"	X	
4) Plug and slot welds.	X	
5) Single-pass fillet welds ≤ 5/16"		X
6) Floor and roof deck welds.		X
b. Reinforcing steel:		
1) Verification of weldability of reinforcing steel other than ASTM A706.		X
2) Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls and shear reinforcement.	X	
3) Shear reinforcement.	X	
4) Other reinforcing steel.		X
6. Inspection of steel frame joint details for compliance with approved construction documents:		
a. Details such as bracing and stiffening.		X
b. Member locations.		X
c. Application of joint details at each connection.		X

SAMPLE NOT FOR CONSTRUCTION

STRUCTURAL OBSERVATIONS

Where the 2006 IBC is the applicable basis for the local building code, refer to Section 1709 for structural observation requirements or to the equivalent section in the local building code.

Where the 2009 IBC is the applicable basis for the local building code, refer to Section 1710 for structural observation requirements or to the equivalent section in the local building code.

EDGEWOOD WIND ENERGY PROJECT
EDGEWOOD, NEW MEXICO, USA
I FOUNDATION

HALUS POWER SYSTEMS
[illegible] TEL [illegible]
[illegible] FAX [illegible]

NESTOR A. AGBAYANI
NEW MEXICO
18767
PROFESSIONAL ENGINEER

SIGNATURE (OR DIGITAL SIGNATURE ON ELECTRONIC FILE)
DATE 01.27.2011

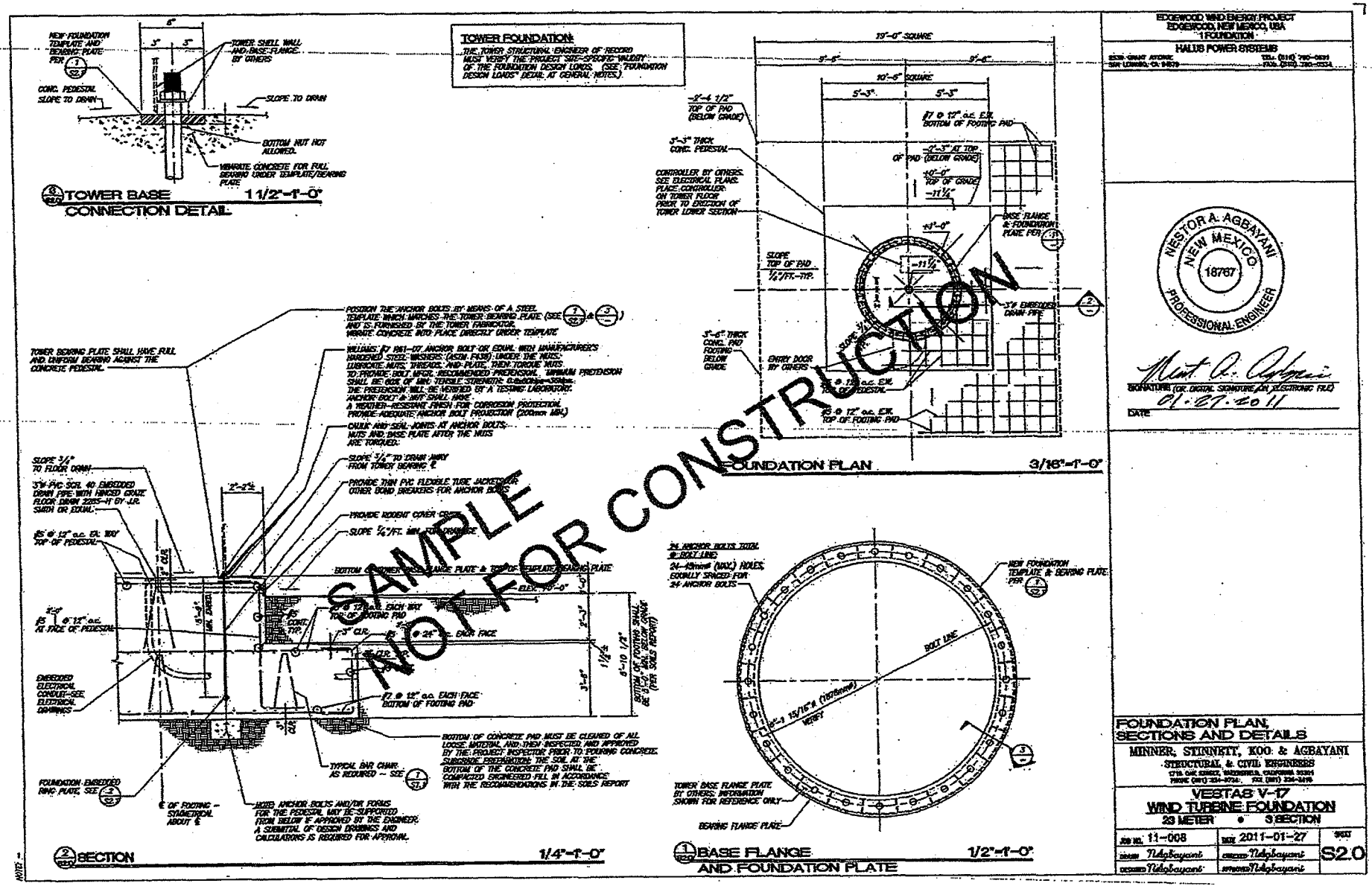
GENERAL NOTES

MINNER, STINNETT, KOO & AGBAYANI
STRUCTURAL & CIVIL ENGINEERS
[illegible]

VESTAS V-17
WIND TURBINE FOUNDATION
23 METER • 3 SECTION

JOB NO. 11-008	DATE 2011-01-27	SHEET S1.2
DRAWN Nagbayani	CHECKED Nagbayani	
DESIGNED Nagbayani	APPROVED Nagbayani	

PLN2012-00006
Exhibit C- Elevations
February 7, 2013



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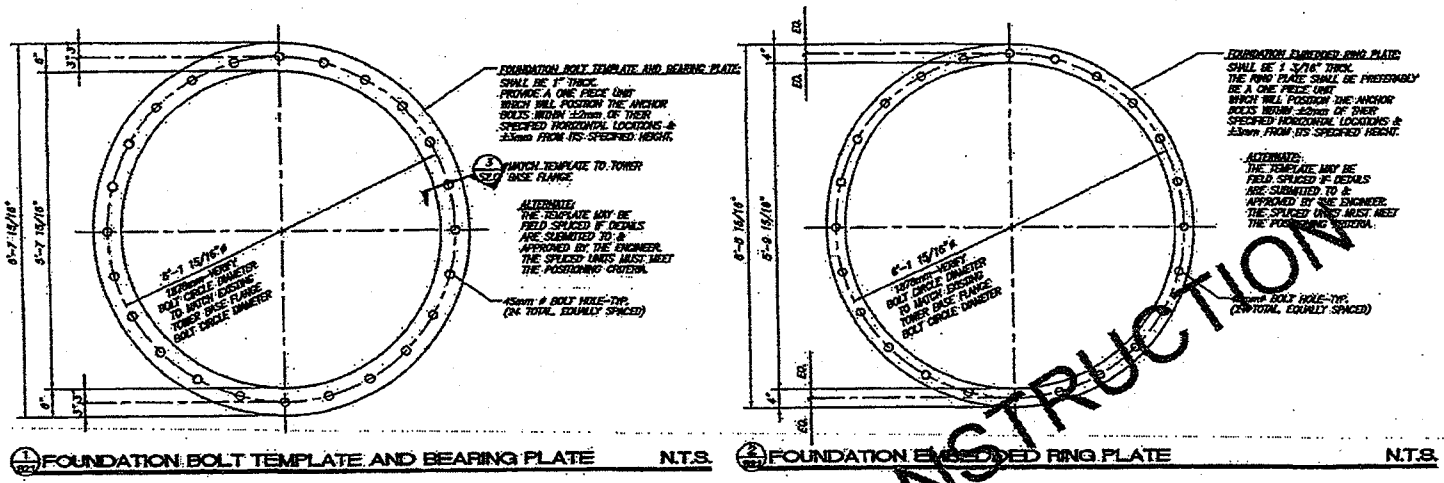

1 FOUNDATION BOLT TEMPLATE AND BEARING PLATE N.T.S.

2 FOUNDATION EMBEDDED RING PLATE N.T.S.

NOTE –

SAMPLE
NOT FOR CONSTRUCTION

EDGEWOOD WIND ENERGY PROJECT
EDGEWOOD, NEW MEXICO, USA
1 FOUNDATION

HALUS POWER SYSTEMS

NESTOR A. AGBAYANI
NEW MEXICO
18767
PROFESSIONAL ENGINEER

SIGNATURE (OR DIGITAL SIGNATURE OF ELECTRONIC FILE)
01.27.2011
DATE

FOUNDATION DETAILS

MINNER, STINNETT, KOO & AGBAYANI
STRUCTURAL & CIVIL ENGINEERS

VESTAS V-17
WIND TURBINE FOUNDATION
23 METER • 3 SECTION

JOB NO. 11-008	DATE 2011-01-27	SHEET S2.1
DRAWN Ndgbayani	CHECKED Ndgbayani	
DESIGNED Ndgbayani	APPROVED Ndgbayani	

PLN2012-00006
Exhibit C- Elevations
February 7, 2013

EXHIBIT D

Mitigation Monitoring Program

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DRAFT MITIGATION MONITORING PROGRAM (MMP)

	IMPACT	MITIGATION REQUIRED	MONITORING RESPONSIBILITY	TIMING
Biological Resources				
1.	Potential impacts on avian species.	**#1a. ~~If construction must be scheduled to occur during the migratory bird and raptor nesting season (February 15 through August 15 for most birds), a~~ A qualified wildlife biologist, familiar with the species and habitats in the Project area, will be retained to conduct pre-construction surveys for raptors and nesting birds within 300 feet of construction activities. The surveys shall be conducted one week before initiation of construction. If no active nests are detected during surveys, activities may proceed. If active nests are detected then the applicant should consult with the Lead Agency and DFG on appropriate buffers. (BZA amended this measure by motion at its February 7, 2013 meeting.).** **#1b. To reduce impacts to raptors, the applicant shall minimize small mammal habitat from occurring beneath the wind swept area of the turbine.** **#1c. To reduce impacts to avian species from electrocution, all electrical wires shall be placed underground or follow minimization methods established by Avian Power Line Interaction Committee.** **#1d. If a state or federally listed species is killed during Project operations without the appropriate Incidental Take Permit (ITP) under the California Endangered Species Act (CESA) or the federal Endangered Species Act, the applicant shall halt all turbine operations immediately. The applicant must consult with the United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Game (DFG)*.** **#1e. If a carcass is found that is federally threatened, endangered or protected by the Migratory Bird Treaty Act (MBTA), the information shall be reported by a qualified biologist to USFWS, Office of Law Enforcement, Renewable Energy Officer at (650) 876-9078 within five days of its discovery.** **#1f. If a carcass of a species listed pursuant to CESA or Fish and Game Code Section 3511 is discovered , DFG* shall be immediately notified at (707) 944-5500.** **#1g. If a species is injured as a result of Project operations, the applicant shall immediately take it to a DFG* approved wildlife rehabilitation or veterinary facility, such as Sulphur Creek Nature Center, at (510) 881-6747; or Ohlone Humane Center, at (510) 797-9449. Permittee shall bear any costs associated with the care and treatment of such injured species.** **#1h. A post-construction monitoring plan shall be approved by**	City of San Leandro and Department of Fish and Game (DFG)* has been changed to the California Department of Fish and Wildlife (CDFW)	These measures are to be implemented prior to one month of initial turbine operations and enforced in an ongoing basis.

DRAFT MITIGATION MONITORING PROGRAM (MMP)

	IMPACT	MITIGATION REQUIRED	MONITORING RESPONSIBILITY	TIMING
		DFG* and implemented within one month of initial turbine operation. **#1i. Turbine may not operate in heavy rain or dense fog. (BZA added this measure by motion at its February 7, 2013 meeting for the purpose of protecting avian species.).**		
Geology and Soils				
2.	Project is in a liquefaction hazard zone.	**#2: The City of San Leandro has incorporated the 2009 International Building Code into its municipal building code (Title 7, Chapter 7-5). The project applicant would be required to comply with all applicable State and City regulations to address potential geologic hazards associated with the proposed project, including ground shaking and liquefaction. Geotechnical and seismic design criteria must conform to engineering recommendations in accordance with the seismic requirements of the 2009 California Building Code (Title 24) and any amendments adopted in the San Leandro Municipal Code. Additionally, because the project site is in a liquefaction Seismic Hazard Zone, the project applicant will be required to comply with the guidelines set forth by California Geological Survey Special Publication 117.**	City Engineer and Building Official	Prior to issuance of grading permits.
Hazards and Hazardous Materials				
3.	The proposed wind turbine is subject to the regulations of the Alameda County Airport Land Use Commission and the Federal Aviation Administration requirements. (The proposed wind turbine is at a height similar to the PG&E high-tension wires to the west of the site.)	**#3: Halus Power Systems shall secure approval of Alameda County Airport Land Use Commission and the Federal Aviation Administration prior to building permit approval of the wind turbine.** **NOTE: The FAA issued a "Determination of No Hazard to Air Navigation" on June 21, 2012. A copy of this determination is on file at the City of San Leandro Planning Services Division Office.**	City of San Leandro, Alameda County Airport Land Use Commission and the Federal Aviation Administration	Already completed (June 12, 2012).

EXHIBIT B

FINDINGS OF FACT

PLN2012-00006 - 2539 GRANT AVENUE

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RECOMMENED
FINDINGS OF FACT

PLN2012-00006 - 2539 Grant Avenue
L. Rigaud, Halus Power Systems (applicant and property owner)

The Board of Zoning Adjustments hereby approves the Variance for the proposed 80-foot tall, single wind turbine where the blades will extend an additional 20 feet from the structure for a maximum height of 100 feet at 2539 Grant Avenue, Halus Power System, subject to the following findings:

Variance

1. **That because of special circumstances or conditions applicable to the subject property -- including narrowness and shallowness or shape, exceptional topography, or the extraordinary or exceptional situations or conditions -- strict application of the requirements of this article would result in peculiar and exceptional difficulties to, or exceptional and/or undue hardships upon, the owner of the property;**

   The unusual circumstances in this instance are the irregular flag shape of the lot, its sizeable land area, it is not immediately adjacent to occupied properties, and its clear and unobstructed location to the westerly San Francisco Bay winds, which make it a candidate for the proposed turbine. The flag lot moves the turbine away from street view. The large size of the lot provides adequate setbacks from adjacent properties and uses by situating it on the center of the large parcel. In addition to the large setbacks, the immediately adjacent properties are either flood control area or industrial properties which are not occupied or densely occupied by persons. The geographic location near the Bay, plus being clear and unobstructed, is ideal for the turbine to operate from the westerly on shore winds. The proposed height is optimal in operating a turbine; a lower height is not a viable option in operating the turbine. Therefore the unique and unusual circumstances make the site suitable for the new turbine to operate.

2. **That the relief may be granted without substantial detriment to the public good, without substantial impairment of affected natural resources; and without significant detriment or injury to property or improvements in the vicinity of the development site, or to the public health, safety or general welfare; and**

   The 40 foot variance to exceed the 60 foot allowable height limit would not have any detrimental impact on adjacent property or persons. It would not obstruct the availability of light or air to the adjacent properties and will pose no nuisance and no hazard to the general public. The turbine is in a fenced area within a larger fenced area in the middle of a site on private property that is not accessible to the public. Moreover, large setbacks are provided on all sides of the turbine (over 500 feet from residences to the north, approximately 750 feet from Grant Avenue, approximately 130 feet from the westerly side property line and approximately 280 feet from the easterly side property line) to prevent any obstruction of light and air to adjacent properties. In addition, the setbacks make the turbine inaudible from any of the adjacent properties. The immediate adjacent properties on all sides do not have a high concentration of persons occupying them. To the east is a junk yard/salvage yard. To the north is the San Lorenzo Creek. To the east and south are warehouse buildings.

Permitting the variance and constructing the turbine would have no affect on any natural resources. An avian study was conducted and the proposed operation of the turbine and existing biological and environmental conditions would have no significant affect on birds or bats.

3. **That granting the application is consistent with the purposes of this code and will not constitute a grant of special privilege inconsistent with limitations on other properties in the vicinity and in the same zoning district.**

The granting of this variance is consistent with the purpose of this code to provide and protect existing industrial sites and allow for continued operation of existing general industry, subject to performance standards and requirements to minimize potential environmental impacts. The variance would not constitute a granting of special privilege. This is a unique situation for a single 100 foot tall turbine which is located in the middle of a 4.7 acre site. It would have adequate setbacks of over 500 feet from residences to the north and 750 feet from the street to the south.

4. **The Board of Zoning Adjustments shall approve, conditionally approve, or disapprove applications for use permits, variances, or parking exceptions upon finding that the proposed use permit, variance, or parking exception is consistent with the General Plan, the general purposes of this Article, the specific purposes of the base or overlay zoning district in which a development site is located, and all applicable requirements of the Municipal Code.**

The proposed variance would permit a use that is consistent with the General Plan, which designates the property for General Industrial uses that are characterized by distribution facilities, research and development, and manufacturing operations which produce minimal off-site impacts. The following General Plan policies are applicable to the proposed project:

7.01 Industrial Assets - Build on the strengths of the City's existing industrial base, transportation infrastructure, and proximity to Oakland International Airport in the City's business development efforts.

7.02 Economic Diversity - Promote economic diversity and the growth of new and emerging industries. Target businesses that will provide higher-paying jobs for San Leandro residents.

7.03 Sustainable Manufacturing - Promote environmentally sustainable manufacturing practices by San Leandro businesses and focus business attraction efforts on clean, environmentally-friendly businesses.

7.06 Adaptive Reuse - Encourage private reinvestment in vacant or underutilized industrial and commercial real estate to adapt such property to changing economic needs, including the creation of flex/office space.

10.02 Off-Site Impacts - Consider the setting and context of each site when evaluating proposals for development in industrial areas. The potential for impacts on adjacent uses, including the potential for land use conflicts and increased parking demand and truck traffic, should be a key consideration.

In addition to being consistent with the General Plan, the proposal would also satisfy a goal in the San Leandro Climate Action Plan.

Section 3.3 Goal: Increase residential, commercial and industrial renewable energy use "On-site renewable energy systems offer another important lever for reducing emissions…To encourage on-site renewable energy, one common strategy employed by other local governments is to offer expedited permitting procedures for renewable generation and green buildings."

The proposed variance would be consistent with this Article 22 of the Zoning Code in that it is only being granted with respect to the height of the structure. Pursuant to the Article the variance does not extend to permit a use which is not permitted or specified in the Zoning Code. Moreover, the intention of the variance to gain additional height is to resolve a practical difficulty to effectively operate a turbine which would is a permitted use on the subject property. The additional height is necessary because effective prevailing winds to operate the turbine are at a height greater than the maximum permitted height in the industrial zoning district.

The proposed variance would be consistent with the specific purposes of the IG Industrial General District in providing and protecting an existing industrial site and allowing for its continued operation of existing general industry, and at the same time minimizes potential environmental impacts. The variance would allow a turbine to operate which is a permitted in the IG District as it was determined that its purpose is for research, development and testing for the business operating on the property. Pursuant to the California Environmental Quality Act, a Mitigated Negative Declaration (MND) has been prepared for this project. The City in its preparation of a MND has conclusively determined that the proposed project, with the incorporation of the mitigation measures agreed to by the applicant, clearly will not have a significant effect on the environment and that no substantial evidence in the light of the whole record has been presented to the City that the proposed project may have a significant effect on the environment.

The proposed variance would be consistent with the applicable requirements in the Municipal Code in that approving the variance would subject the project to all of the other City requirements such as Building Codes, Fire Codes, etc. that are not included in the Zoning Code for further ensuring health and safety, and public welfare in carrying out the construction and the operation of the turbine structure.

EXHIBIT C

CONDITIONS OF APPROVAL

PLN2012-00006 - 2539 GRANT AVENUE

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RECOMMENDED
CONDITIONS OF APPROVAL

PLN2012-00006 - 2539 Grant Avenue
L. Rigaud, Halus Power Systems (applicant and property owner)

I. COMPLIANCE WITH APPROVED PLANS

A. The project shall comply with Exhibits A through C, dated February 7, 2013, except as hereinafter modified. (Exhibits are on file at the City of San Leandro, Community Development Department, 835 East 14th Street, San Leandro, California, 94577).

Exhibit A – Site Plan
Exhibit B – Aerial Photograph of Existing Site Conditions
Exhibit C – Elevations

B. The applicant and/or property owner shall be responsible for assuring that any successor in interest who assumes responsibility for this zoning approval is informed of its terms and conditions.

C. Construction shall commence within one (1) year following Board of Zoning Adjustments approval of the Variance and shall be substantially completed one year after commencement of construction. For the purpose of compliance with this condition, commencement of construction shall be defined as the pouring or construction of a substantial portion of the building foundation structure. Pursuant to Zoning Code Section 5-2218, this approval shall lapse on **February 7, 2014** unless a) a building permit has been issued, coupled with diligent progress evidencing good faith intent to commence the intended use, or b) a written request for a one-year extension of the use permit is approved by the Zoning Enforcement Official.

II. PERMITTED USE

A. This approval is for a Variance to permit construction 80-foot tall, single wind turbine where the blades will extend an additional 20 feet from the structure for a maximum height of 100 feet, where the maximum allowable height is 60 feet in the industrial districts; 2539 Grant Avenue; Alameda County Assessor's Parcel Number 80G-910-15.

B. No application for amendment of the application or Conditions of Approval may be submitted or accepted for processing by the city unless (i) there is full compliance with all terms of the application and Conditions of Approval; or (ii) the Community Development Director can waive compliance with the terms of the application if they are minor in content.

C. Construction of the project shall remain in substantial compliance with the approved exhibits and plans. Any change to the project design, materials or colors shall be subject to the review and approval of the Community Development

Director who may administratively approve minor changes, or for more substantial changes, require review by the Board of Zoning Adjustments as a modification to the Variance.

D. Unless otherwise specified on the approved plans (Exhibits A - C) or in these Conditions of Approval, the development shall comply with the applicable zoning standards for the IG Industrial General District, such as but not limited to standards governing setbacks, building coverage, outdoor storage, and screening, with the exception of the variance granted to exceed the height limit.

III. MITIGATION OF ENVIRONMENTAL IMPACTS

A. All mitigation measures indicated in the Mitigated Negative Declaration shall be included and are hereby incorporated as Conditions of Approval. (They are listed below as letters B. through K.). Said mitigation measures are also listed in the Mitigation Monitoring Plan and the applicant shall comply with and implement all provisions of said Mitigation Monitoring Plan (MMP). Note: References to Department of Fish and Game (DFG) below has been changed to the California Department of Fish and Wildlife (CDFW).

B. If construction must be scheduled to occur during the migratory bird and raptor nesting season (February 15 through August 15 for most birds), a qualified wildlife biologist, familiar with the species and habitats in the Project area, will be retained to conduct pre-construction surveys for raptors and nesting birds within 300 feet of construction activities. The surveys shall be conducted one week before initiation of construction. If no active nests are detected during surveys, activities may proceed. If active nests are detected then the applicant should consult with the Lead Agency and DFG on appropriate buffers. Mitigation Measure # 1a in the MMP.

C. To reduce impacts to raptors, the applicant shall minimize small mammal habitat from occurring beneath the wind swept area of the turbine. Mitigation Measure #1b in the MMP.

D. To reduce impacts to avian species from electrocution, all electrical wires shall be placed underground or follow minimization methods established by Avian Power Line Interaction Committee. Mitigation Measure # 1c in the MMP.

E. If a state or federally listed species is killed during Project operations without the appropriate Incidental Take Permit (ITP) under the California Endangered Species Act (CESA) or the federal Endangered Species Act, the applicant shall halt all turbine operations immediately. The applicant must consult with the United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Game (DFG). Mitigation Measure # 1d in the MMP.

F. If a carcass is found that is federally threatened, endangered or protected by the Migratory Bird Treaty Act (MBTA), the information shall be reported by a qualified biologist to USFWS, Office of Law Enforcement, Renewable Energy

Officer at (650) 876-9078 within five days of its discovery. Mitigation Measure # 1e in the MMP.

G. If a carcass of a species listed pursuant to CESA or Fish and Game Code Section 3511 is discovered, DFG shall be immediately notified at (707) 944-5500. Mitigation Measure # 1f in the MMP.

H. If a species is injured as a result of Project operations, the applicant shall immediately take it to a DFG approved wildlife rehabilitation or veterinary facility, such as Sulphur Creek Nature Center, at (510) 881-6747; or Ohlone Humane Center, at (510) 797-9449. Permittee shall bear any costs associated with the care and treatment of such injured species. Mitigation Measure # 1g in the MMP.

I. A post-construction monitoring plan shall be approved by DFG and implemented within one month of initial turbine operation. Mitigation Measure # 1h in the MMP.

J. The City of San Leandro has incorporated the 2009 International Building Code into its municipal building code (Title 7, Chapter 7-5). The project applicant would be required to comply with all applicable State and City regulations to address potential geologic hazards associated with the proposed project, including ground shaking and liquefaction. Geotechnical and seismic design criteria must conform to engineering recommendations in accordance with the seismic requirements of the 2009 California Building Code (Title 24) and any amendments adopted in the San Leandro Municipal Code. Additionally, because the project site is in a liquefaction Seismic Hazard Zone, the project applicant will be required to comply with the guidelines set forth by California Geological Survey Special Publication 117. Mitigation Measure #2 in the MMP.

K. Halus Power Systems shall secure approval of Alameda County Airport Land Use Commission and the Federal Aviation Administration prior to building permit approval of the wind turbine. Mitigation Measure #3 in the MMP.

IV. MAINTENANCE

A. The project site shall be well-maintained and shall be kept free of litter, debris, and weeds at all times; during construction, the site shall be well maintained and shall be kept free of litter, debris, and weeds.

B. Any graffiti shall be promptly removed from the property (i.e., turbine tower structure, building walls, signs, windows, paving, et cetera).

C. In the event that the use of the tower to operate a turbine is abandoned, the applicant shall obtain the necessary building permit to remove the tower and restore the site to its pre-installation condition.

V. CONSTRUCTION PROVISIONS

A. Construction activity on private property shall not commence prior to 7:00 a.m. and shall cease by 7:00 p.m. Monday through Friday, and construction activity shall not commence prior to 8:00 a.m. and shall cease by 7:00 p.m. on Sunday and Saturday. No such construction is permitted on Federal holidays. As provided in this City of San Leandro's Noise Ordinance (ORDINANCE NO. 2003 – 005), "construction" shall mean any site preparation, assembly, erection, substantial repair, alteration, demolition or similar action, for or on any private property, public or private right-of-way, streets, structures, utilities, facilities, or other similar property. Construction activities carried on in violation of this Article may be enforced as provided in Section 4-11-1130, and may also be enforced by issuance of a stop work order and/or revocation of any or all permits issued for such construction activity.

B. Construction activity shall not create dust, noise, or safety hazards for adjacent businesses and properties. Dirt and mud shall not be tracked onto Grant Avenue from the project site during construction.

C. Standard construction dust control procedures, such as wetting, daily road washing, and other maintenance functions to control emissions, shall be implemented at all times during outdoor construction. Dust generating activities such as grading, excavation, paving etc., shall be scheduled in the early morning or other hours when wind speeds are low. All construction activities entailing soil disturbance shall cease when winds exceed thirty (30) miles per hour as an hourly average.

D. The applicant shall prepare a construction truck route plan that would restrict trucks to arterial streets that have sufficient pavement section to bear the heavy truck traffic, thereby minimizing noise and traffic impacts to the community. The construction truck route plan shall be reviewed and approved by the City Engineer prior to issuance of the building permit.

E. Truck hauling activities shall be restricted to 8:00 a.m. to 5:00 p.m. There shall be no truck hauling activity on Saturdays, Sundays, and legal holidays.

F. Procedures with the highest noise potential shall be scheduled for daylight hours, when ambient noise levels are highest.

G. The applicant and/or contractor(s) shall be required to employ the quietest among alternative equipment or to muffle/control noise from available equipment.

H. All construction contracts shall include the following requirements: 1) Unpaved construction sites shall be sprinkled with water at least twice per day; and 2) Trucks hauling construction materials shall be covered with tarpaulins or other effective covers.

VI. GENERAL CONDITIONS

A. Any sign copy on the structure shall be limited to the brand or model name in an accessory or an incidental application on said structure, sign details subject to the review and approval of the Community Development Director. The structure shall not be used for any other supplemental sign copy, such as the advertising of products, services, phone numbers, and website addresses.

B. East Bay Municipal Utility District (EBMUD) Right-of-Way, R/W 5275, is located on the northeast side of the subject property for a groundwater well and related pipeline and access. Any proposed construction activity within the right-of-way shall be coordinated with EBMUD, Water Service Planning.

C. The approvals granted by the City as a result of this application, as well as the Conditions of Approval, shall be recorded in the Office of the County Recorder of Alameda County.

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CONDITIONS OF APPROVAL

PLN2012-00006 - 2539 Grant Avenue
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B. The applicant and/or property owner shall be responsible for assuring that any successor in interest who assumes responsibility for this zoning approval is informed of its terms and conditions.

C. Construction shall commence within one (1) year following Board of Zoning Adjustments approval of the Variance and shall be substantially completed one year after commencement of construction. For the purpose of compliance with this condition, commencement of construction shall be defined as the pouring or construction of a substantial portion of the building foundation structure. Pursuant to Zoning Code Section 5-2218, this approval shall lapse on **February 7, 2014** unless a) a building permit has been issued, coupled with diligent progress evidencing good faith intent to commence the intended use, or b) a written request for a one-year extension of the use permit is approved by the Zoning Enforcement Official.

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J. Turbine may not operate in heavy rain or dense fog. Mitigation Measure # 1i in the MMP. **(BZA added this measure by motion at its February 7, 2013 meeting for the purpose of protecting avian species.).**

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L. Halus Power Systems shall secure approval of Alameda County Airport Land Use Commission and the Federal Aviation Administration prior to building permit approval of the wind turbine. Mitigation Measure #3 in the MMP.

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B. Construction activity shall not create dust, noise, or safety hazards for adjacent businesses and properties. Dirt and mud shall not be tracked onto Grant Avenue from the project site during construction.

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Trucks hauling construction materials shall be covered with tarpaulins or other effective covers.

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