

CERTIFIED MAIL

March 25, 1985

Mr. Peter R. Shackelford
Tradewind Power Company
P. O. Box 278
Paauilo, HI 96776

Dear Mr. Shackelford:

Variance Application (V85-1)
Tradewind Power Company
Tax Map Key 5-5-16:2

After reviewing your application and the information submitted in behalf of it, the Planning Director by this letter hereby certifies the approval of your variance request to construct a wind energy conversion system with a tower height of eighty (80) feet in lieu of the maximum allowable height of forty-five (45) feet on a non-conforming parcel within the County's Agricultural (A-20a) zoned district.

The approval is based on the following:

1. A special circumstance existing on the subject property not generally applying to surrounding properties in conjunction with the request for a height exception. This lot contains bordering stands of trees up to fifty (50) feet in height providing both an aesthetic addition plus serving as a practical and needed windbreak for the property. However, these trees also cause a disruption in wind flow patterns resulting in the necessity of the proposed windmill blades having to be placed substantially above them in order to be effective energy generators (reference - "A Siting Handbook for Small Wind Energy Conversion Systems, U. S. Department of Energy, March 1980"). The request is, therefore, completely dependent on the flow and speed of the wind in order to function satisfactorily. A "clear" zone free of turbulence occurs at 80 feet and is required to assure a steady undisturbed windflow necessary for a safe, efficient operation.

The applicant intends to use the power generated by the windmill to be the main supply source for his electrical demands. The facility must be sited relatively close to the existing structures for efficiency purposes, and thus alternate locations throughout the subject property are limited.

2. This set of circumstances (buildings, trees and localized wind patterns) exist to a degree which would not permit the establishing of an alternate energy system (the windmill) on the subject property without exceeding the district height limit of 45 feet. In assessing the request of height variance for a windmill, three basic elements evaluated are the visual impact, the physical impact, and the need for the additional height. The proposed windmill must be reviewed in terms of its visual and physical impact in the area to ensure that the spirit and intent of the district height limits are not violated. Pursuant to the site plan submitted with the variance application, the proposed windmill will be located ten feet from and adjacent a single family dwelling under construction, approximately 85 feet from the Kaauhuhu Road, 65 feet from the parcel's rear property line, and approximately 950 feet from Kaauhuu/Hawi Road intersection. The land to the north and south surrounding the property is vacant and was once used for sugar production. The parcels to the east and west are both non-conforming parcels used for single family dwellings. As such, while it can be conceded that the additional height being requested is one that is valid, it should not compromise the other visual and physical impact issues. However, the central location of the windplant on the property will be buffered by existing wild olive trees on the adjacent parcel identified by TMK: 5-5-16:3, existing windbreak trees along and fronting Kaauhuhu Road, and the distance of the windplant from Mamalahoa Highway will serve to minimize any physical or visual impacts in the area. As such, it is felt the granting of the variance will not compromise the physical and visual issues for this area. The distances from the adjacent dwellings and government owned rights-of-way will ensure that both the visual and physical impact will be minimized to the point where it should have a minor rather than a major impact on the area in light of the additional height being granted in this variance.
3. In assessing the continuing local and national emphasis on utilizing alternate energy sources, the denial of this request would thus interfere with the most efficient manner of developing the subject property.

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4. Due to the special circumstances involved with this request, approval of the Variance will not constitute a grant of special privilege inconsistent with limitations upon other properties under identical district classifications.
5. Approval of this Variance request would be consistent with the County General Plan and with local and national goals which encourage the development and use of alternate energy sources. Its approval will also be consistent with the district purposes which allow for agricultural and very low density residential use. In this particular case, the height request would not unreasonably infringe upon existing or potential development rights of surrounding properties, which are currently in agricultural use.

The variance request is approved, subject to the following conditions:

1. Precise siting of the windmill tower shall abide by the site plan described by ATTACHMENT C, FIGURE 2.
2. Plans and construction of the total structure must be approved by a structural engineer or architect registered in the State of Hawaii.
3. The applicant shall comply with Part 77 of the Federal Aviation Regulations (14 C.R.F Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958, as amended, prior to obtaining a building permit.
4. The applicant shall submit plans to the Planning Department for Plan Approval and obtain a building permit for the structure by March 25, 1986.
5. Granting of this Variance request does not construe or imply the County's preserving for the applicant any upwind easement by restricting in whole or in part, future development on other properties in the vicinity.
6. The applicant shall comply with all other applicable Federal, State and County rules, regulations and requirements.
7. The property owner of TMK: 5-5-16:2 shall be responsible for providing the appropriate safeguards on the wind energy conversion system to prevent TV and/or radio interference to the adjoining property owners notified through this variance application.

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Should any of the foregoing conditions not be met, this Variance Approval shall be deemed void.

If you have any questions on this matter, please feel free to contact us.

Sincerely,



ALBERT LONO LYMAN
Planning Director

WRY:wkm