



Department of Conservation
MAINE LAND USE REGULATION COMMISSION
22 State House Station, Augusta, Maine 04333
Telephone (207) 287-2631 or (800) 452-8711
Telecopier (207) 287-2400 • TDD (207) 287-2213

August 17, 1995

Kenetech Windpower, Inc.
Attn: Christian A. Herter, III
477 Congress Street, Suite 801
Portland, Maine 04101

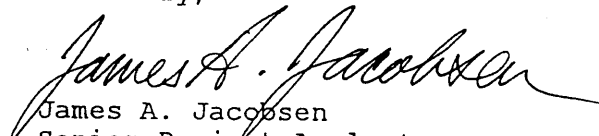
RE: Approved Land Use Regulation Commission Zoning Petition ZP 536

Dear Mr. Herter:

Enclosed is a copy of your approved Land Use Regulation Commission Zoning Petition ZP 536 for rezone 864 acres of land currently designated by the Commission as (P-MA) Mountain Area Protection Subdistrict, 431 acres of designated (M-GN) General Management Subdistrict and two acres of designated (P-SL2) Shoreland Protection Subdistrict to a (D-PD) Planned Development Subdistrict. This document also comprises Commission approval of your company's Preliminary Development Plan for construction and operation of a 210 megawatt wind energy station, with conditions. Please read the enclosed petition carefully. Any changes in your plans must be reviewed and approved as an amendment to your petition.

Thank you for your patience and cooperation. Should you have any further questions, please contact our Augusta office. From within Maine, our toll free number is 1-800-452-8711.

Sincerely,


James A. Jacobsen
Senior Project Analyst
Development Review Division

Enclosure: LURC Zoning Petition ZP 536

xc: ZP 536 File
Philip Ahrens, Esq. w/Enc.
Interested Parties w/Enc.



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COMMISSION DECISION
IN THE MATTER OF

Kenetech Windpower, Inc.
Oxford Paper Company, and
S.D. Warren Company

Findings of Fact and Decision

ZONING PETITION ZP 536 AND
PRELIMINARY DEVELOPMENT PLAN FOR A WIND ENERGY STATION

The Maine Land Use Regulation Commission, at a meeting of the Commission held August 17, 1995, at Caribou, Maine, after reviewing the application and supporting documents submitted by Kenetech Windpower, Inc., Oxford Paper Company and S.D. Warren Company for Zoning Petition ZP 536, public comments, agency review and staff comments and other related materials in the public hearing record, pursuant to 12 M.R.S.A. Section 681 et seq. and the Commission's Standards and Rules, finds the following facts:

1. Petitioners: Kenetech Windpower, Inc.
Attn: Christian A. Herter, III
477 Congress Street
Suite 801
Portland, Maine 04101

Oxford Paper Company
Attn: Robert V. Withrow
c/o Boise Cascade
Rumford, Maine 04276

S.D. Warren Company
Attn: James W. Pinkerton
49 Mountain Ave.
Fairfield, Maine 04937
2. Date of Completed Petition: July 11, 1994¹
Dates of Public Hearing: June 21 and 22, 1994
Date Public Hearing Record Closed: July 25, 1994
3. Location of Proposal: Merrill Strip Township, Skinner Township and
Kibby Township, Franklin County
4. Present Zoning: (P-MA) Mountain Area Protection Subdistrict
(M-GN) General Management Subdistrict
(P-SL2) Shoreland Protection Subdistrict

Proposed Zoning: (D-PD) Planned Development Subdistrict

¹receipt of co-petition statements

5. Intervenor: Central Maine Power Company

Consolidated Intervenors: Maine Audubon Society
Appalachian Mountain Club
Natural Resources Council of Maine
Conservation Law Foundation

6. Kenetech Windpower, Inc. (formerly U.S. Windpower, Inc.) (hereafter "Kenetech") is a corporation organized and existing in the State of Delaware. Kenetech is a wholly owned subsidiary of the Kenetech Corporation which maintains its corporate offices in San Francisco, California. Along with other Kenetech Corporation subsidiaries, Kenetech Windpower designs, builds, finances, operates and maintains electrical generating plants principally utilizing wind, biomass and natural gas, and provides energy conservation and management services.

Kenetech does not own or lease the subject property, but has acquired easement agreements to the subject property and is the principal petitioner of Preliminary Development Plan and Zoning Petition ZP 536. The easement agreements, once executed as active easements, would grant Kenetech exclusive rights to construct, operate and maintain wind powered electrical generating plants and associated facilities, including, but not limited to transmission lines and access roads, in Kibby Township, Skinner Township and Merrill Strip Townships.

The agreements retain for each landowner all rights for forestry operations, including timber harvesting in the townships, provided that said operations and harvesting do not interfere with the generation of electrical energy from the wind.

7. Pursuant to 12 M.R.S.A. § 685-A(8) and 10.14,C,4 of the Commission's Land Use Districts and Standards, only a property owner or lessee may petition for a change in subdistrict boundary, unless such change is initiated by a state or federal agency, or the Commission itself. Because of this requirement, Kenetech is joined in this petition by Oxford Paper Company and S.D. Warren Company, owners of the subject property. However, Kenetech would be the sole permittee regarding the Preliminary Development Plan.
- A. Oxford Paper Company is a corporation organized and existing in the State of Delaware. Oxford is a wholly owned subsidiary of Boise Cascade, Inc. which, along with other Boise Cascade subsidiaries, owns and manages forest land for the purpose of harvesting wood for manufacturing paper and other wood (pulp) products. Oxford Paper Company owns all of the subject property in Merrill Township and copetitions for this zone change.
- B. S.D. Warren Company is a corporation organized and existing in the State of Pennsylvania. S.D. Warren is a wholly owned subsidiary of S. W. Holdings Corporation (a corporation

organized under the laws of the State of Delaware) which is, in turn, a subsidiary of Sappi Ltd. Sappi Ltd. owns and manages forest land for the purpose of harvesting wood for manufacturing paper and other wood (pulp) products. S.D. Warren Company owns all of the subject property in Kibby Township and Skinner Township and copetitions for this zone change.

8. The petitioners propose to rezone 864 acres of land currently designated by the Commission as (P-MA) Mountain Area Protection Subdistrict, 431 acres of designated (M-GN) General Management Subdistrict and two acres of designated (P-SL2) Shoreland Protection Subdistrict to a (D-PD) Planned Development Subdistrict. The purpose of the proposed (D-PD) Planned Development Subdistrict is to construct, operate and maintain a 210 megawatt electrical generating power plant utilizing the wind as its energy source (hereafter wind energy station) and associated facilities.
9. On June 21, 1994 and June 22, 1994, the Commission held a public hearing at Sugarloaf Ski Area in the Town of Carrabassett Valley and at the Stratton Elementary School in the Town of Eustis on the petition. Prior to the public hearing,
 - A. Public notice of the hearing was given in various newspapers in the State on May 31, 1994 and June 13, 1994;
 - B. The Commission granted petitions to intervene in the public hearing to the following parties: Central Maine Power Company, the Appalachian Mountain Club, the Maine Audubon Society, the Natural Resources Council of Maine, the Conservation Law Foundation, the Maine AFL-CIO and its associated locals; the International Brotherhood of Electrical Workers and its Local #119 and Local #567, and the Maine Building Trades Council;
 - C. The Commission released the Maine AFL-CIO and its associated locals as intervenors due to their lack of participation in required pre-hearing conferences;
 - D. For all issues and purposes of the proceeding, the Presiding Officer consolidated the intervenors into two groups as follows:
 - (1) Central Maine Power Company; and
 - (2) The Maine Audubon Society, Appalachian Mountain Club, the Natural Resources Council of Maine, and the Conservation Law Foundation, (hereafter sometimes referred to as "Maine Audubon et. al." or "consolidated intervenors"); and
 - E. Acting through its Presiding Officer, the Commission held pre-hearing conferences on March 3, 1994; May 5, 1994; and June 8,

1994, in order to facilitate the orderly and efficient conduct of the hearing. Pre-hearing memoranda and orders were issued by the Presiding Officer on March 22, 1994, April 13, 1994, May 10, 1994, May 25, 1994 and June 17, 1994. Those orders will be adopted in full in the decision and incorporated by reference.

Direct testimony of the petitioner and the intervenors (collectively referred to as the "parties") was required to be in writing and pre-filed by June 1, 1994. By agreement, the parties chose not to cross-examine each other's witnesses. At the hearing the petitioner and the intervenors were offered the opportunity to make an opening statement and to summarize their direct testimony. In addition, oral testimony was given by the Maine Soil and Water Conservation Commission, the Maine Department of Inland Fisheries and Wildlife, and members of the public.

Following the hearing, the record remained open until July 25, 1994 to allow for the submission of written comments and other information. The parties were then offered the opportunity to file written statements in rebuttal to earlier testimony, briefs, and proposed findings of fact and conclusions. The hearing record, including such submissions from the parties closed on August 4, 1994.

Public Hearing Testimony

10. The Commission received testimony from 37 members of the public and various businesses in and around Franklin County in support of the proposal. Support was also expressed by several members of various regional environmental and business organizations. Regarding the need and public benefit to be gained from the proposal, most expressed support for the clean, renewable, electrical energy sources, and indicated that they believe that there is a need for greater employment opportunities in northern Franklin County.

The Commission received testimony from three members of the public in opposition to the proposal. While generally supportive of clean energy and employment opportunities, those testifying in opposition did not believe that there is a need for additional generating capacity or an additional generating facility at this time. Several opponents stated that the temporary employment (three to five summer seasons) for most of the jobs which would be created by this project would not be a great benefit to the area. They stated that the employment would provide, for the most part, only summertime jobs and raised the concern that the economic "boom" which would result from the temporary jobs would result in an economic "bust" as soon as the construction was completed. Further, they stated that most of the jobs available to local residents would be low wage, low skilled jobs and that the few

good paying jobs would go to skilled people from other areas. The Commission also received 30 letters in opposition to the proposal.

Summary of Preliminary Development Plan Proposal

11. The petitioners seek a change in zoning to (D-PD) Planned Development Subdistrict, and Preliminary Development Plan approval to construct, operate and maintain a wind energy station and associated facilities in the Boundary Mountains of western Maine. The area to be rezoned and developed is near and along the Canadian border in northern Franklin County, between the Canadian border and the town of Eustis. With the exception of that portion of the project within the town of Eustis, all areas proposed for development are located within the Commission's jurisdiction.

The property to be rezoned consists of thirty-seven (37) separate corridors encompassing high mountain ridge tops. Each corridor is 300 feet wide and ranges from 770 feet in length to 12,385 feet (2.35 miles) in length. The aggregate length of corridor totals 25.7 miles of ridge tops, 20.5 miles of which lie within land presently designated (P-MA) Mountain Area Protection Subdistrict. The remainder lies within land presently designated (M-GN) General Management Subdistrict.

12. The wind energy station proposed to be constructed within the new (D-PD) Planned Development Subdistrict would be designed to provide electricity primarily during the times of highest demand (peaking power) in winter months, when there is the greatest demand for electricity.
 - A. The proposed wind energy station and associated facilities would consist of:
 - (1) A total of 639 wind turbines spaced approximately 220 feet apart within the 37 newly rezoned ridge top corridors, hereafter referred to as turbine string corridors;
 - (2) A total of 45.7 miles of 34.5 kV electrical collection lines (20 miles of which would be outside the turbine string corridors);
 - (3) Approximately 132.2 miles of roads (76.7 miles of new roads and 55.7 miles of roads reconstructed from old skid roads and trails) are proposed, including approximately 20 miles of temporary roads. Of the 76.7 miles of new roads, approximately 40 miles of new roadway would be constructed within land currently designated (P-MA) Mountain Area Protection Subdistrict. Of these 40 miles of new roads within (P-MA) Mountain Area Protection Subdistricts, 19.6 miles of road would be outside of turbine string corridors and 20.4 miles of road would be within turbine string corridors. Kenetech did not indicate how many miles of

the 55.7 miles of reconstructed road would be located within (P-MA) Mountain Area Protection Subdistricts.

All of the above specific dimensions are based upon Kenetech's preliminary estimates and are subject to revision due to site considerations to be reviewed in the context of the Final Development Plan. Proposed roads within turbine strings are measured based upon straight line distances within the turbine string corridors, although slopes in many places would require the roads to be constructed in a switchback configuration within and along the turbine string corridors; and

- (4) Other facilities, including an electrical substation, an operations/maintenance building, two construction/staging areas, a helicopter landing pad and gravel pits.

In an associated utility line application (not requiring rezoning, and therefore not part of this petition), Kenetech proposes to construct 23.1 miles of 115 kV (high-tension) transmission line from the proposed wind energy substation in Kibby Township, south through Jim Pond Township and the Town of Eustis to the power grid connection in Coplin Plantation. This would provide electrical connection from the proposed wind energy station to the grid connection below the substation owned by Central Maine Power Company (the proposed receiving utility company) near the Stratton Biomass Plant.

B. Kenetech proposes to construct the project in two phases:

- (1) Phase One would consist of the construction and installation of 401 turbines and towers with associated roads and power lines, the construction staging areas, the substation and the 115 kV transmission line, all proposed to be completed by the end of the building season in 1997.

Phase One would be further divided into two stages. Stage One would include Turbine String Corridors K3 - K11 and S4 - S4E, totalling 283 machines proposed to be completed by the end of 1996. Stage Two would include Turbine String Corridors K1, K2, K12 and S1 - S3, totalling 118 additional machines proposed to be completed by the end of 1997;

- (2) Phase Two would consist of the construction and installation of the remaining 238 turbines and towers with associated roads and power lines, in a single stage proposed to be completed by July 1, 1999.

Because time has passed since Kenetech initially planned to begin construction, Kenetech may need to modify the timing of its proposed construction phases.

- C. Each proposed turbine would be three-bladed with a 108 foot diameter sweep, and would have an enclosed nacelle (an enclosure for the central blade shaft connection, generators, hydraulic pumps, heaters, etc.) The nacelle with attached blades would rotate on top of a tower between 80 feet and 120 feet tall thereby directing the turbine into the wind. The towers would be freestanding and are proposed to be constructed either of steel lattice with an internal caged ladder, or as an enclosed single steel pole with an internal ladder, although the former is more likely to be used. The steel lattice type tower would be supported by four legs and occupy an average ground area of 20 feet by 20 feet. Each tower leg would be anchored directly to bedrock, or supported on drilled piers, dependent upon site specific conditions.
- D. The 639 turbines would be arrayed within the thirty-seven (37) 300 foot wide turbine string corridors. The shortest turbine string corridor (M5) would be 770 feet long and including four towers with turbines. The longest turbine string corridor (K11) would be 12,385 feet (2.35 miles) long and include 57 towers with turbines. The turbine string corridors would be located along 25.7 miles of mountain ridge tops at elevations between 2,400 feet mean sea level (msl) and 3,600 feet msl. Twenty and one-half miles of the turbine string corridors would be within land designated (P-MA) Mountain Area Protection Subdistricts.
- E. The extent of vegetative clearing within each 300 foot wide turbine string corridor would be governed by four clearing zones established by the petitioner. These clearing zones would be parallel to the turbine strings and roughly perpendicular to the prevailing wind direction. For the purposes of this discussion, "windward" from a tower would be toward the direction from which the wind most often blows.
- (1) Zone #1, the zone closest to the edge of each turbine string corridor on the windward side, would be 50 feet wide totalling 155.75 aggregate acres. This zone would be cleared of any vegetation higher than an elevation 20 feet below the elevation of the lowest blade sweep at each turbine. The elevation of the lowest blade sweep ranges from six feet to 46 feet due to the difference in tower heights; the vegetative clearing would vary accordingly to maintain a 20 foot separation between the blades and the vegetation.
 - (2) Zone #2, the zone next closest to the edge of the turbine string corridor on the windward side, would also be 50 feet wide totalling 155.75 acres affected. This zone would be cleared in a manner proposed to result in vegetation heights tapering from an elevation 20 feet below the minimum blade elevation (6 feet to 46 feet in height at the edge of Zone #1) to an elevation no more

than six feet above ground level (at the edge closest to the turbines);

- (3) Zone #3, a zone traversing the middle of the turbine string corridor, would be 110 feet wide totalling 342.67 acres affected. This zone would include the turbines along the exact center of the turbine string corridor, and extend from 50 feet windward of the turbines to 60 feet downwind of the turbines. The downwind side of the turbines, in a standard profile, would include the access road and the 34.5 kV line. Except for the ground area actually occupied by the towers and the access road, which would be cleared of all vegetation, this zone would be cleared down to brush and shrubs no more than six feet in height;
- (4) Zone #4 would be the remaining 90 foot wide strip downwind of Zone #3 totalling 280.36 acres affected, in which the vegetative clearing would be sloped or tapered from the less than six foot height of Zone #3 to a maximum height of 20 feet below the minimum blade elevation at the outside edge of the zone (six feet to 46 feet in height, depending on the height of the tower);
- (5) In each zone the height of the vegetation left standing will be maintained at or below the maximum height allowed. Vegetation greater in height than the maximum allowed would likely be removed in its entirety rather than cut off at the maximum height. The cutting heights in some of the zones would vary according to ground configuration and tower height (which would vary the distance of the blade height above the ground). A tower height of 120 feet would result in cutting heights of 46 feet. A tower height of 80 feet would result in cutting heights of 6 feet.

F. Power generated by each turbine would travel by electrical cables to a "downtower" cabinet located on the tower which would transform the 480 volt A.C. variable frequency electrical power to 480 volt A.C. 60 cycle electricity. Cables from the downtower cabinet would be connected to a 6 foot by 7 foot by 7 foot tall padmount transformer near the towers which would transform the power from 480 volt to 34.5 kV. Power lines exiting the transformers would connect with the system of 34.5 kV power collection lines to transport the power to the proposed substation to be located in Kibby Township. From there, approximately 23.1 miles of 115 kV transmission lines would transport the electricity to a substation in Stratton, owned by the receiving utility company (Central Maine Power Company).

- (1) The 34.5 kV power collection system is proposed to consist primarily of electrical lines strung upon single

wooden poles spaced approximately 220 feet apart. The poles would be 32 feet above ground level with six to eight feet embedded into the ground or bedrock. In addition to the 25.7 miles of collection lines within the turbine strings, an additional 19.9 miles of 34.5 kV power collection lines and poles would be constructed to transmit electricity from the turbine strings to the proposed substation (approximately 1094 poles);

- (2) The proposed substation would convert the electricity from 34.5 kV to 115 kV and would be located in the Kibby Stream valley, just north of Kibby Stream and east of the Gold Brook Road. The substation would occupy an area approximately 125 feet by 200 feet, would be fenced and surrounded by a firebreak;
 - (3) Electricity transmitted to the proposed substation would be delivered to Central Maine Power Company's substation east of Stratton via a proposed 23.1 mile 115 kV transmission line to be constructed by petitioner Kenetech for this purpose. This 115 kV transmission line would be strung upon single wooden poles with steel arms, and H-frame structures spaced 350 feet to 1,100 feet apart. The single poles would be approximately 90 feet long with 11 feet embedded into the ground. The H-frame structures would be approximately 70 feet above ground with nine feet embedded into the ground. This transmission line is not proposed to be included within the proposed (D-PD) Planned Development Subdistrict. Utility lines are a permitted use within (M-GN) General Management Subdistrict and (P-SL) Shoreland Protection Subdistrict, and are a permitted use by special exception in (P-WL) Wetland Protection Subdistrict. This proposed line would not require a change in zoning, however, it would require a separate utility line permit from the Commission;
 - (4) Clearing along transmission lines would be limited to all vegetation located within 20 feet on either side of the transmission line, creating a corridor width of approximately 100 feet or less, dependent upon structure location and conductor height above the ground surface;
- G. Kenetech also proposes to construct a 60 foot by 100 foot operations and maintenance building adjacent to the proposed substation. Kenetech proposes to construct a 30 foot by 60 foot control center attached to the operations and maintenance building from which the turbines would be operated, monitored and controlled during maintenance periods. The control center may also be used for normal operation of the wind energy station provided Kenetech does not decide to operate the station via computer from its facilities in California or from some other remote control center.

- H. To provide access to the turbine strings and the 34.5 kV collector lines for initial construction and ongoing maintenance purposes petitioner Kenetech proposes to construct approximately 76.7 miles of new gravel roads and to construct approximately 55.7 miles of roads along old skid roads and trails. The road mileage estimates and locations are approximate until final surveying and engineering provides actual road mileage, which would be reviewed in the context of the Final Development Plan;
- (1) Approximately 25.7 miles of the 76.7 miles of new roads would be within the turbine string corridors, 20.4 miles of which would be at elevations above 2,700 feet msl (areas presently designated by the Commission as (P-MA) Mountain Area Protection Subdistricts);
 - (2) Approximately 19.6 miles of additional new roads would be constructed above 2,700 feet msl outside the turbine string corridors, for a total of approximately 40 miles of new roads above 2,700 feet msl;
 - (3) Below 2,700 feet msl, approximately 10.3 miles of new roads associated with the towers and turbines would be constructed. Under a separate permit, 21 miles of new roads associated with the 115 kV transmission line would be constructed outside the (D-PD) Planned Development Subdistrict;
 - (4) Although petitioner Kenetech has not identified the exact route the new roads would follow, it has provided the following specifications which would apply to all 132.2 miles of roads to be constructed:
 - (a) All roads are proposed to be of a gravel travel surface no wider than 12 feet;
 - (b) All roads would be constructed or reconstructed with slopes of 15 percent or less, except for some short road stretches with slopes up to 18 percent grades; and
 - (c) With the exception of areas requiring extensive cuts or fill extensions, vegetative clearing for roads would be limited to an area approximately 20 feet in width, inclusive of the 12 foot wide roads.

Financial Capability

13. Kenetech has submitted letters of intent to lend or provide equity capital for construction and operation of the proposed wind energy station, and financial statements for itself (1991 to 1993) and its corporate predecessor, U.S. Windpower, Inc. (1990 to 1992) as demonstration that it has the financial capability to fund the

construction and operation of the proposal. Kenetech testified that it has financed projects of similar scale since 1984 by use of equity ownership and through major lending institutions.

Kenetech also submitted a letter from a surety company, pursuant to testimony it made at the public hearing, stating that the surety company has in the past issued surety bonds to Kenetech ranging from \$50 million to \$150 million. The surety company stated that it anticipates no difficulty in execution of performance bonds and payment bonds for Kenetech, subject to normal underwriting review.

Preliminary Soils Data

14. Kenetech stated that the project area has no significant geological formations, outcrops or bare ledges, and that the erosion and stabilization control manual makes adequate provision to control erosion and to allow for appropriate development on steep slopes and fragile soils. Further, Kenetech stated that any problems encountered can be overcome by engineered methods.

As part of its petition, Kenetech submitted a preliminary soils survey of the subject property by State Certified Soil Scientist Bruce Whitney. Mr. Whitney identified the project area as one which includes approximately 85 square miles of forested, mountainous terrain. Given the lack of existing soils data over this territory, and the highly dispersed nature of the project, the soil survey was conducted as an estimate of the presence of soil types, primarily through flying and aerial photo analysis of proposed turbine string corridors, anticipated access road corridors and anticipated transmission line corridors. In addition, Mr. Whitney conducted an unspecified number of on-site "soil scapes" (probable soils associations based upon origin and elevation) in representative turbine string corridors, road corridors and transmission line corridors, using existing road cuts and gravel pits to field check the aerial results.

According to Mr. Whitney, soil associations found on the property may include Adams, Allagash, Brayton, Burnham, Chesuncook, Colonel, Colton, Croghan, Dixfield, Enchanted, Lyman, Machias, Marlow, Masardis, Monarda, Peacham, Ricker, Saddleback, Stetson, and Telos associations, as well as undifferentiated and unclassified floodplain soils and organic soils.

The soils identified range from well drained to very poorly drained with slopes 8 percent and greater. The soils are identified by "associations" which contain up to seven different soil types and are mapped on a scale having the potential for inclusions of other soil types which are up to 40 acres in size.

Kenetech stated that, regardless of soil type, soils at higher elevations on the subject property were assumed to be cryic in nature. According to Mr. Whitney, the propensity of cryic soils

for freeze/thaw disturbance, relatively high water content, fine-particle content, thinness and short growing seasons make them significantly more susceptible to erosion and sedimentation problems than soils in other thermal regimes.

At this stage of its proposal, Kenetech did not submit a medium intensity soils map that covers those portions of the site(s) where development is proposed, as required under provisions of Section 10.14,C,8,a(10) of the Commission's Land Use Districts and Standards. Based on advice of Maine Soil and Water Conservation Commission, this requirement was waived at the Preliminary Development Plan stage by Land Use Regulation Commission Staff and Maine Department of Environmental Protection Staff, with the understanding that this level of detailed information would be obtained and reviewed at the Final Development Plan stage, when site-specific information and engineering plans will be available and subject to review and approval before any construction begins.

Further comments regarding soil suitability are included below under Review Comments, Findings of Fact #28 and #29.

Access Roads & Erosion Control

15. As part of its petition, Kenetech has submitted a preliminary Erosion and Sediment Control, Clearing and Road Maintenance Construction Manual for the project. Among other things, this manual provides that:

- (A) Erosion and sedimentation preventative and stabilization techniques designed to overcome cryic soil limitations will be utilized for all soil-disturbing activities within the current (P-MA) Mountain Area Protection Subdistrict.

Specific erosion and sedimentation control measures described in the plan include, but are not limited to, the use of sedimentation barriers installed prior to construction, removal of organic or otherwise unsuitable soils where necessary, and the installation of ditches, under drains, cross drains, water bars, geotextile fabrics, culverts, riprap aprons and level lip spreaders.

This plan would require that all topsoil under the roads and their downslope fill be removed and replaced with gravel over compacted embankment fill. A geotextile fabric may also be used where the soil is not sufficiently structurally sound. The plan would also require under drains to collect surficial and subsurface drainage and discharge the water in the same pattern as existed prior to the disturbance.

According to the plan, all disturbed soils are proposed to be stabilized using vegetative planting and seeding, erosion matting or graded stone as necessary. In addition to the standard 20 foot wide clearing for the road, trees within five feet of an adjacent cut in the hillside will be removed. The

plan further specifies that trees over six inches diameter located between five and 10 feet of an adjacent cut in the hillside would be secured with cables, as necessary, to prevent toppling or sliding downslope.

- (B) All construction activities requiring temporary road access across wetlands will be performed only when the ground is frozen.
- (C) To avoid disturbance of saturated soils, no vegetative clearing would occur between March 15 and May 15 of any year at elevations below 2,700 feet msl and none would occur between March 15 and June 1 of any year at elevations above 2,700 feet msl.
- (D) The 76.7 miles of new access roads and 55.7 miles of old logging roads and trails would be constructed with a 12 foot wide gravel travel surface with an overall maximum 15 percent continuous grade plus a maximum 18 percent grade on slopes less than 100 feet in length. These roads would have a vehicle turnout approximately every 1/4 mile. With the exception of approximately 20 miles of temporary roads built solely to access construction of the 115 kV transmission line, the remaining 112.2 miles would be permanent, year-round roads.
- (E) Prior to actual construction of the roads, hydrologic and hydraulic studies would be conducted to determine anticipated runoff, and evaluate topographic, soil, and vegetation to determine the type, size, spacing and site specific details necessary to avoid adverse environmental impacts upon the existing mountain resources. After construction, all development would be permanently monitored by Kenetech for compliance with the manual's requirements. The long-term road maintenance, or closing and stabilizing provisions beyond the life of the project are unspecified.

Avian Impact

16. Kenetech stated that the proposal would have no undue adverse impact on waterfowl, raptors or songbirds of the area. In support of this position, Kenetech conducted a review of existing literature on avian migration, breeding and foraging patterns in the western high mountain region of Maine; and it conducted plant and animal habitat field investigations. Further, Kenetech conducted breeding bird population, raptor presence, and raptor migration surveys during 1992 and 1993, within proposed turbine string corridors at a rate of four to ten minute blocks of time at each of 24 designated stations scattered throughout the 37 proposed turbine string corridors. The purpose of these investigations was to identify existing natural resources including critical habitats for raptors and song birds.

Kenetech has also proposed to conduct additional on-going avian monitoring and research in a settlement agreement (so-called by Kenetech and Maine Audubon et. al.) with the consolidated intervenors. Within this agreement, Kenetech agreed to undertake

specific measures to determine whether the project is likely to have an unreasonable adverse impact on avian species and to avoid or mitigate all unreasonable adverse avian impacts identified. Some of the measures Kenetech proposes to undertake include:

- (A) To implement a separate agreement with the Maine Department of Inland Fisheries and Wildlife, dated March 2, 1994, in which Kenetech promises to provide \$150,000.00 to the Maine Department of Inland Fisheries and Wildlife to fund two years of research on golden eagles in the western mountains of Maine;
 - (B) To perform passerine migration studies during the spring and fall of 1994. The spring 1994 study was completed prior to the close of the hearing record, however, the results of these studies were not submitted prior to the close of the hearing record; and
 - (C) To develop a specific post-construction monitoring plan designed to assess avian mortality. Further, if such a study determines that the project is likely to cause or has caused an unreasonable adverse impact on avian species, Kenetech will develop and implement appropriate and reasonable measures to avoid or mitigate such adverse impact.
17. Initial data and data collection methodology of the 1992 raptor surveys and avian assessment report were found deficient by the Commission's consultant, Dr. Sidney A. Gauthreaux, Jr., due to unfounded conclusions based upon limited field data. Dr. Gauthreaux stated that a more comprehensive study would address the deficiencies and should be required. Kenetech agreed to do a new series of avian observations in the spring and fall of 1994 based on approved methods. The studies were performed but the results were not available before the close of the hearing record. Subsequent to his review of the 1992 raptor surveys and avian assessment report (1992 reports), Dr. Gauthreaux reviewed the pre-filed testimony of Maine Audubon Society and of Kenetech's engineers and consultants. Based upon the pre-filed testimony of these parties, Dr. Gauthreaux stated that most of his concerns regarding the 1992 reports had been addressed. Dr. Gauthreaux also stated that given the settlement agreement between Kenetech and the consolidated intervenors, he believed that the proposed wind energy station would be monitored adequately for the detection of potential environmental impacts.
18. Several individuals and several organizations, including the Sierra Club and the Maine Chapter of the National Audubon Society, commented that information concerning the migration routes of various species of birds and on the impacts of the project on the avian resources of the area is incomplete. Specifically, they stated:
- (A) The project would likely have an undue adverse impact upon raptors. Rotating turbine blades present a mortality hazard to foraging, nesting and migrating birds. Mitigation can not protect golden eagles and peregrine falcons, both of which are endangered species, from the turbine blades, increasing the

possibility that their populations could be extirpated from the State of Maine; and

- (B) Migrating neotropical songbirds could also be adversely affected by the turbines. Further, these commenters believe the project would cause extensive permanent forest and habitat fragmentation, especially in fragile high mountain areas. They stated that such fragmentation is known to be detrimental to many neotropical songbirds due to the resultant increase in avian predators and parasites. Therefore, they believe that such fragmentation threatens the high mountain and biological diversity of the region.

Further comments regarding avian impact are included below under Review Comments, Findings of Fact #26 and #27.

Scenic Impact

19. Kenetech stated that the project should not have an undue adverse impact upon the scenic values of the area in that
- (A) Only a small portion of the subject property could be viewed from any public road, and only for a few moments from a moving vehicle;
- (B) This site has no scenic resources that are significant or noteworthy, and is a fairly low value area in terms of overall scenic quality; and
- (C) The level of scenic impact of the 639 wind turbines mounted on 80 foot to 120 foot tall towers, the power lines and the roads is a subjective determination.

Kenetech testified that the area proposed for development was in large part harvested of timber approximately 40 to 50 years ago, and that the area is part of a larger working forest, i.e., a forest presently managed as commercial timber lands. Kenetech also testified that the viewshed from the proposed wind tower locations includes large tracts of recently harvested forests, and a network of existing land management roads. Kenetech stated that the existing land management road network in the valleys, the existing timber harvesting practices at lower elevations of the area and previous harvesting practices in years past demonstrate that the area is not a wilderness and does not have wilderness values. Although the area is not developed with residences and businesses, Kenetech stated the lower elevation road network and actively managed forest is evidence that the project area has no significant remote values. Kenetech stated that based upon these factors, the proposal would not have a greater scenic impact upon the area than existing conditions adjacent to the site already have.

Kenetech stated that it engaged in a careful site selection process designed to avoid areas of significant environmental, scenic, natural, historic or public resource values. Further, Kenetech stated that it undertook extensive environmental studies to assess

the likely environmental impacts of the project and has adjustments in the design of the project to mitigate those impacts, including scenic impact.

Demonstration of Need

20. The petitioner stated that the proposal would satisfy a demonstrated need in the area for the following reasons:

- (A) The proposal would provide a renewable source of relatively low-cost electrical energy, capable of replacing electricity presently produced by polluting, non-renewable sources;

State and Federal policies encourage the development of alternative sources of electrical energy to replace fossil fuels. Specifically:

- (i) The 1992 Maine Commission on Comprehensive Energy Planning declared the development of indigenous, renewable energy resources to be in the public interest, provided that individual proposed projects remain subject to all appropriate environmental permit requirements.
- (ii) The Maine Comprehensive Energy Resources Plan of 1987 and the Electric Rate Reform Act (35-A M.R.S.A. 3152) declared the development of indigenous, renewable energy resources to be in the public interest.
- (iii) The Public Utilities Regulatory Policy Act (PURPA) requires local utilities to purchase all power generated from renewable sources by non-utility power suppliers at a cost equal to the avoided costs (the lowest cost of generation by other existing sources).

In the course of the public hearing Kenetech commented on the economic feasibility of the proposal, and stated that it could produce power when paid a rate equal to Central Maine Power Company's avoided costs. It also stated that it could receive a 1.5 cent tax credit from the federal government for each kwh produced.

- (iv) Requirements of the 1990 Clean Air Act Amendments create incentives for using renewable resources, due to the costs of controlling emissions from fossil fuel-fired plants.
- (B) Kenetech also stated that the proposal would satisfy a demonstrated need because it would provide electrical power which will be needed within five to nine years. In support of its position that additional power will be needed, Kenetech cited an April 1993 projection by the New England Power Pool (NEPOOL) that its reserve capacity for summer peak loads will disappear by the year 2000, and for winter peak loads by the year 2002 (NEPOOL is a consortium of electrical utilities in New England that work together to meet their electrical power

needs, and to which the electrical power generated by the proposal would be added); and stated that several fossil fuel and nuclear power plants in New England are scheduled for decommissioning between the year 2000 and 2010.

- (C) The proposal would result in additional employment in an area of high unemployment. Kenetech stated that the project, if fully developed, would produce 18 to 24 full-time jobs for skilled employees and several years of summer construction jobs for 50 to 180 people. Kenetech further stated that 80 percent to 90 percent of the jobs created by the project would go to local residents.
- (D) The project, once complete, would add \$700,000.00 to \$800,000.00 to the annual property tax revenues for the State of Maine. Kenetech also stated that the project would enhance recreational opportunities in the area by linking the communities of Stratton and Eustis with Interconnecting Snowmobile Trail System #89 along the proposed 115 kV power line (hereafter ITS #89) by allowing snowmobilers to use the right-of-way.

21. Intervenor Central Maine Power Company (CMP) commented on the need for the facility as follows:

- (A) CMP stated that, as the receiving utility company, it would be required by PURPA to purchase any and all electrical power produced by Kenetech at the avoided cost. CMP further testified that the avoided cost for the winter of 1993-1994 ranged from 2.19 cents per kwh to 3.25 cents per kwh.
- (B) CMP stated that an advantage to windpower is that its generation could be added in small increments on short notice, allowing it to adapt quickly to the need for new energy resources. CMP stated this means the generating capacity does not have to be built until it is needed, and therefore, the environmental effects of plant construction are avoided until the time the energy is needed.

22. Intervenor Conservation Law Foundation (CLF) testified regarding the demonstrated need issue. CLF stated that it has actively advocated for a change in New England's power sources, from polluting sources such as coal fired plants, to non-polluting sources, such as the proposed wind energy station. CLF stated that it believes that the proposal would satisfy a need for clean-sourced energy in Maine and New England, and accordingly, a need for air quality improvements.

Substantially Equivalent Protection

23. Under provisions of Section 10.14,C,8,b(2) of the Commission's Land Use Districts and Standards, the petitioner must demonstrate that a substantially equivalent level of environmental and resource protection as was afforded under the existing Protection Subdistrict (in this case a (P-MA) Mountain Area Protection Subdistrict) will be provided under the (D-PD) Planned Development Subdistrict.

Kenetech stated the proposed (D-PD) Planned Development Subdistrict would have a substantially equivalent level of environmental and resource protection. In support of its position, Kenetech pointed out that the proposed wind energy station use would be similar to other uses allowed by permit from the Commission within a (P-MA) Mountain Area Protection Subdistrict, specifically utility facilities, ski area facilities, timber harvesting and level C road projects (by Special Exception); would be compatible with other permitted uses within the (P-MA) Mountain Area Protection Subdistrict; would be at a site which has few of the fragile resources characteristic of some lands in (P-MA) Mountain Area Protection Subdistricts; and would be utilizing conservative site designs that would have a minimal amount of disruption and would mitigate adverse impacts.

24. Particularly, Kenetech stated that the 20 foot by 20 foot based towers with wind turbines and the transmission lines are similar to utility facilities permitted by special exception within (P-MA) Mountain Area Protection Subdistricts, such as communications towers, and electric lines and poles; the vegetative clearing associated with the proposal would be less intense and on shallower slopes than would normally be found in ski area developments permitted by special exception within (P-MA) Mountain Area Protection Subdistricts, and would be no more intrusive than normally found in permitted timber harvesting operations in the (P-MA) Mountain Area Protection Subdistrict; and the proposed access roads would be identical to those permitted by special exception in the (P-MA) Mountain Area Protection Subdistrict.

Kenetech stated that the project is compatible with existing forest management, timber harvesting and primitive recreational uses in the surrounding area, as well as all other uses presently allowed with and without a permit within a (P-MA) Mountain Area Protection Subdistrict. In addition, Kenetech stated that the project would enhance primitive recreational uses of the area in the form of enhanced snowmobiling opportunities in the area.

Kenetech stated that the site has virtually none of the fragile characteristics or rugged slopes found in some other lands zoned (P-MA) Mountain Area Protection Subdistrict due to relatively gentle slopes, lack of alpine vegetation and evidence of prior timber harvesting from years past.

25. While supportive of the project as a whole, the consolidated intervenors stated their belief that the project, as proposed, does not meet the substantially equivalent protection criteria on-site due to the proposed permanent development of previously undeveloped mountain tops. The consolidated intervenors testified that the project would permanently alter the least developed part of the Boundary Mountain region. This activity, they said, would alter the fundamental characteristic of the high mountain landscape and act to fragment miles of summit area on the subject five mountain tops.

The consolidated intervenors further testified that the impacts of the project are unavoidable in that the land use impacts can not be

mitigated on-site. They urged the Commission to require the petitioner to protect other high value land outside the project area as a means of mitigating the unavoidable on-site adverse impacts.

26. To address the foregoing concerns of the consolidated intervenors, Kenetech has entered into an agreement with Maine Audubon et. al. in which, among other things, it has agreed to provide \$300,000.00 to a fund or entity to be selected jointly by Kenetech and the consolidated intervenors, to protect, through conservation easement or fee ownership, one or more ecologically significant or threatened parcels of high mountain area. A charitable organization, Sweetwater Trust, has indicated willingness to match these funds, according to Maine Audubon et. al.

Review Comments

27. While supportive of the rezoning and proposed development as a whole, Maine Audubon Society commented that there is a lack of general information regarding migratory birds in forested mountain areas and little information to date specifically regarding migratory birds and raptors in the vicinity of the subject property, particularly in regard to nocturnal migrants.

Because of the precedent-setting nature of this project, Maine Audubon Society stated that additional on-site research should be undertaken to ensure that there are no significant concentrations of migratory birds in the area, and to ensure that the proposed turbines do not create an undue adverse impact on the bird populations. (Such a requirement was included in the agreement signed between Kenetech Windpower, Inc. and the consolidated intervenors.)

28. The Maine Department of Inland Fisheries and Wildlife (MDIF&W) commented that the project area is within areas deemed to be potential golden eagle habitat and the majority of its historic golden eagle nesting records are within 25 miles of the subject property. The proposed turbine string corridors are within the historic normal feeding range of golden eagles. There were no golden eagles known to be in the area until preliminary studies by Kenetech identified two golden eagles in 1993. MDIF&W testified that its concern relates to the fact that cleared turbine string corridors could present a habitat which would likely attract golden eagles to the turbine strings for foraging, and to the towers for perching; and place them in proximity to the operating turbines. They stated that the financial assistance offered by Kenetech would help perform the additional research needed to determine the impact the proposal would have on golden eagles in the State of Maine. MDIF&W stated that they have no outstanding concerns regarding adverse impacts from the proposal.
29. The Maine Soil and Water Conservation Commission (MSWCC) did not object to the proposed rezoning. At the same time, its Policy on Windpower Stations in High Mountain Areas of Maine dated January 12, 1994, recommended that a Preliminary Development Plan limit access to those means which require little or no soil disturbance, such as by helicopter, all terrain vehicle (ATV) trail, snowmobiles or other

means requiring minimal or no soil disturbance. MSWCC also recommended against the construction of roads above 2,700 feet msl due to the high potential for severe adverse environmental effects upon the unique and fragile soils found in high mountain areas.

MSWCC's Soil Scientist, David Rocque, stated that cryic soils have an average summer temperature less than 43 degrees fahrenheit, making it difficult to detect the presence of a water table, even when water is close to the surface. Cryic soils are near the limit of biologic activity and are, therefore, difficult to revegetate; and further, cryic soils are thixotropic, tending to lose shear strength with remolding and disturbance, thus making these soils susceptible to erosion and slumping. Mr. Rocque noted that Kenetech has indicated a willingness to utilize additional erosion and sedimentation control measures beyond those typically employed.

While not opposed to the rezoning of the proposal as such, Mr. Rocque commented upon serious issues related to the approval of a Development Plan. He testified at the public hearing that the combination of steep slopes, intense rain events, high precipitation, cool temperatures and shallow soils in the high mountain areas make for a particularly fragile environment. Typical road and other construction techniques and erosion control measures would likely be inadequate in these areas because intense rain events can quickly cause significant erosion and sedimentation problems. Further, he testified that studies in northern Franklin County suggest that cryic soil conditions have been found at elevations as low as 2,200 feet msl to 2,300 feet msl. This would be well below the 2,700 foot level established by the Commission as its (P-MA) Mountain Area Protection Subdistrict. As such, disturbance of soils at elevations above 2,200 feet msl and below 2,700 feet msl may also require special erosion control measures due to the possible presence of cryic properties and slopes in excess of 15 percent grades.

30. The Franklin County Soil and Water Conservation District stated that Saddleback and Ricker soil associations, two that appear to constitute more than half the project area and are known to be cryic in nature, are high in organic matter and become smeary when disturbed. The soil becomes fluid when disturbed or under force. They are very unstable, highly erosive and very slippery.
31. The Commission's Planning and Zoning Division (Division) raised the issue of whether demonstration of need should be satisfied through the submission of confirmed power purchase agreements at the Final development Plan stage. The Division stated that resolution of this issue may depend upon the weight given by Commission to the contracts as a demonstration of need.

The Division disagreed with Kenetech's position that the structures and uses proposed are the same as other structures allowed with permits and by special exception in the (P-MA) Mountain Area Protection Subdistrict. Specifically, the Division believed that the listing of a use or an activity as allowed by permit or special exception is not tantamount to a finding that the use or activity

would have acceptable impacts, since any presently allowed use or activity would have to meet applicable permitting criteria. The Division stated the belief that for the substantially equivalent level of protection standard, the demonstration should be focused on demonstrating minimal environmental disruption and use of conservative protection measures.

The Commission finds that the time for making a determination regarding necessary protection measures is at the Final Development Plan stage.

32. Other outside reviewers and agencies including Appalachian Mountain Club, Conservation Law Foundation, Natural Resources Council of Maine, Maine Historic Preservation Commission, Maine Department of Human Services, Division of Health Engineering, Maine Department of Transportation, and Maine Department of Environmental Protection reviewed the proposal, and either stated support for the proposal or that they had no concerns about the proposal with regard to their respective areas of expertise or jurisdiction. The Maine Department of Environmental Protection has issued a Site Location Order for the proposal under provisions of the Site Location of Development law.

Regulatory Criteria for (D-PD) Planned Development Subdistrict

33. Under provisions of Section 10.14,C,1 of the Commission's Land Use Districts and Standards, the purpose of the (D-PD) Planned Development Subdistrict is to allow for large scale, well planned developments. It is the Commission's intent under provisions of this Section to consider development proposals separated from existing developed areas, provided that they can be shown to be of high quality and not detrimental to other values established in the Comprehensive Land Use Plan, and provided they depend upon a particular natural feature or location which is available at the proposed site. A permit will be granted under provisions of this Section when the Commission is persuaded by a preponderance of all evidence that the location of the site is the best reasonably available for the proposed use and that the goals and policies of the Comprehensive Land Use Plan are served.

Under provisions of Section 10.14,C,6 of the Commission's Land Use Districts and Standards, the Planned Development review procedure shall consist of three stages: a preapplication conference, submission of a Preliminary Development Plan, and submission of a Final Development Plan. In the event that the Commission approves a petition for a change in district to (D-PD) Planned Development Subdistrict, the Commission shall issue a Planned Development Permit that specifies under what conditions the Final Development Plan will be judged. No development will be allowed under provisions of this Section until a Final Development Plan is submitted and approved.

Preliminary Development Plan Application

The following items are required to be submitted with any

Preliminary Development Plan Application:

- (1) A legal description of the property boundaries proposed for redistricting, including a statement of present and proposed ownership.
- (2) A statement of the objectives to be achieved by locating the development in its proposed location distant from existing patterns of development. The statement should describe why the site is considered the best reasonably available for the proposed use(s).
- (3) A reasonably complete development schedule and construction program that indicates when the project and stages thereof will begin and be completed.
- (4) Statements to satisfy the Commission that the project is realistic, and can be financed and completed. Such statements shall demonstrate that the petitioner has the financial resources and support to achieve the proposed development and that a sufficient market exists for the goods and/or services the development will provide.
- (5) A statement of the environmental impact of the proposed development which sets forth the reasonably foreseeable adverse effects and measures to be taken by the petitioner to minimize such effects.
- (6) A general statement that indicates how the natural resources of the area will be managed and protected so as to reasonably assure that those resources currently designated within Protection Subdistricts will receive protection that is substantially equivalent to that under the original subdistrict designation.
- (7) A location map (drawn on a USGS topographic map base or LURC Land Use Map) that indicates the area for which a (D-PD) Development Subdistrict designation is sought.
- (8) A map showing existing site conditions including contours at 10 foot intervals, water courses, unique natural conditions, forest cover, swamps, lakes, ponds, existing buildings, road boundaries, property lines and names of adjoining property owners, scenic locations and other prominent topographical or environmental features.
- (9) A soils map of at least medium intensity that covers those portions of the site where any development is proposed.
- (10) A site plan that shows the approximate location and size of all existing and proposed structures and other improvements, including roads, bridges, storm drainage, and cut and fill operations.

- (11) A map or description of the approximate type, size and location of proposed utility systems including electric lines.

Criteria for the Approval of a Preliminary Development Plan

In considering a Preliminary Development Plan application, the Commission shall ensure that the proposal:

- (1) Conforms with the objectives and policies of the Comprehensive Land Use Plan and 12 M.R.S.A., Chapter 206-A;
- (2) Incorporates, where the land proposed for inclusion in the (D-PD) Development Subdistrict is in a Protection Subdistrict, a substantially equivalent level of environmental and resource protection as was afforded under such Protection Subdistrict;
- (3) Utilizes the best reasonably available site for the proposed use;
- (4) Conserves productive forest and/or farm land;
- (5) Incorporates high quality site planning and design in accordance with accepted contemporary planning principles;
- (6) Envisions a project that is reasonably self-sufficient in terms of necessary public services;
- (7) Provides for safe and efficient traffic circulation; and
- (8) Utilizes the best practical technology to reduce pollution, waste and energy consumption.

Submission of Final Development Plan

If, after weighing all the evidence, the Commission approves the Preliminary Development Plan application, the (D-PD) Development Subdistrict shall be designated on the official district map and a Planned Development Permit will be issued. The Planned Development Permit may contain such reasonable conditions as the Commission deems appropriate and will specify the conditions for approval of the Final Development Plan.

Within a maximum of 18 months following a Commission decision to designate an area as a (D-PD) Development Subdistrict, the petitioner shall file a Final Development Plan. At its discretion, and for good cause shown, the Commission may extend for a period not in excess of 6 months, the deadline for filing of the Final Development Plan.

The Final Development Plan application procedure serves to ensure that the petitioner's detailed design and construction plans conform with the approved Planned Development Permit.

The Final Development Plan shall include statements, drawings, specifications, covenants and conditions sufficient to fully detail the

nature and scope of the proposed development. Without limitation of the foregoing, the Final Development Plan submission shall include:

- (1) Drawings that include all the information required on the site plan under the Preliminary Development Plan (Section 10.14,C,8,a(11)) plus the dimensions and heights, foundation design, material specifications, and elevations and colors of all buildings and structures.
- (2) Drawings that illustrate all roads, parking service and traffic circulation areas.
- (3) Drawings that indicate all surface water runoff and storm drainage systems, soil stabilization procedures, and landscape plans for planting, screening, revegetation and erosion control.

The items submitted as part of the Final Development Plan shall comply with the conditions of approval of the Preliminary Development Plan and shall conform with applicable state regulations, including 12 M.R.S.A. section 685-B(4). In addition, the Final Development Plan shall conform with progressive site planning standards which permit flexibility and imagination in the layout of different building types.

The burden shall be on the petitioner to show good cause for any variation between the Preliminary Development Plan and the Final Plan submitted for final approval.

Approval or Denial of Final Development Plan

Upon accepting a Final Development Plan, the Commission shall issue a Permit, pursuant to 12 M.R.S.A. section 685-B, for the Final Development Plan. Such Permit may contain reasonable conditions as the Commission may deem appropriate.

Time for Construction

If no substantial development has occurred pursuant to the Final Development Plan by the later of: (a) 24 months after the date of approval or (b) expiration of any extension of time for starting development granted by the Commission, the approved plan shall become null and void and the (D-PD) Development Subdistrict designation shall be deemed to be revoked and the original subdistrict(s) shall again apply.

Comprehensive Land Use Plan

34. Chapter 4, Section I,I of the Commission's Comprehensive Land Use Plan stated that the Commission shall provide for the environmentally sound and socially beneficial utilization of indigenous energy resources where there are not overriding, conflicting public values which require protection. Under the policies of this Section, the Commission shall (1) encourage energy conservation and diversification, and the use of indigenous

renewable resources to increase the state's energy self-sufficiency;
(2) prohibit energy developments and related land uses in areas identified as environmentally sensitive where there are overriding, conflicting environmental and public values requiring protection;
(3) permit new energy developments where their need to the people of Maine has been demonstrated and they are sited, constructed and landscaped to minimize intrusion on natural and human resources; and
(4) review environmental and social impacts of energy development and establish permit conditions which minimize and mitigate adverse effects of such developments.

Chapter 4, Section II,5(b) of the Commission's Comprehensive Land Use Plan state that well planned development should be allowed, subject to site plan review, where there is demonstrated demand for and benefit from the proposed development in the area.

Statutory Criteria for Approval

35. Under provisions of the Commission's Statutes, 12 M.R.S.A. section 685-A(8), no change in a district boundary shall be approved by the Commission unless the petitioner demonstrates, by substantial evidence, that:
- A. The change would be consistent with the standards for district boundaries in effect at the time; the Comprehensive Land Use Plan; and the purpose, intent and provisions of this chapter; and
 - B. The change in districting will satisfy demonstrated a need in the community or area and will have no undue adverse impact on existing uses or resources, or a new district designation is more appropriate for the protection and management of existing uses and resources within the affected area.
36. The proposal must meet provisions of the Commission's Criteria for Approval, 12 M.R.S.A. section 685-B(4)(A). Adequate technical and financial provisions must be made for complying with the requirements of the state's air and water pollution control and other environmental laws, and those standards and regulations adopted thereto, for solid waste disposal, for controlling offensive odors, and for the securing and maintenance of healthful water supplies.

The proposal must meet provisions of the Commission's Criteria for Approval, 12 M.R.S.A. section 685-B(4)(B). Adequate provisions must be made for loading, parking, and circulation of land, air, and water traffic, in, on, and from the site, and for assurance that the proposal will not cause congestion or unsafe conditions with respect to existing or proposed transportation arteries or methods.

The proposal must meet provisions of the Commission's Criteria for Approval, 12 M.R.S.A. section 685-B(4)(C). Adequate provisions must

be made for fitting the proposal harmoniously into the existing natural environment, in order to assure that there will be no undue adverse impact on existing uses, scenic character, and natural and historic uses and resources in the area likely to be affected by the proposal.

The proposal must meet provisions of the Commission's Criteria for Approval, 12 M.R.S.A. section 685-B(4)(D). Adequate provisions must be made to assure that uses of topography, soils, and subsoils meet standards of the current Soil Suitability Guide for Land Use Planning in Maine, or which are adaptable to the proposed use pursuant to said guide and will not cause unreasonable soil erosion or reduction in the capacity of the land to absorb and hold water.

The proposal must meet provisions of the Commission's Criteria for Approval, 12 M.R.S.A. section 685-B(4)(E). The proposal must otherwise be in conformance with this chapter and the regulations, standards, and plans adopted pursuant thereto.

37. The facts are otherwise as represented in Zoning Petition ZP 536 and supporting documents.

Based upon the above Findings, the Commission concludes that:

1. The proposed wind energy station and related land uses would meet provisions of the Commission's Statutes, 12 M.R.S.A. section 685-A(8). The Commission is persuaded, on balance, that the petitioner has adequately demonstrated that the change would be consistent with the standards for the (D-PD) Planned Development Subdistrict, the Comprehensive Land Use Plan, and the purpose, intent and provisions of this chapter; and that the change in districting will satisfy a demonstrated need in the community or area and will have no undue adverse impact on existing uses or resources. Specifically, the Commission concludes that the proposal, including the petitioner's Preliminary Development Plan, has substantially met the criteria for rezoning to a (D-PD) Planned Development Subdistrict, subject to (1) detailed site-specific soils data, (2) detailed site-specific road construction drawings, and (3) detailed avian impact data, all of which can be reasonably provided in the Final Development Plan to be submitted before any development activity can take place.
2. The proposed wind energy station would satisfy a demonstrated need in Maine for new non-polluting energy sources, and secondarily for increased employment opportunity in an area with an historically high unemployment rate. The Commission is also persuaded that the proposal would not have an undue adverse impact upon scenic resources, since the area is a remote, working forest with existing harvest areas in various stages of re-growth and an existing network of land management roads, and not an area of significant recreational uses or scenic values.

3. Kenetech must demonstrate that it has incorporated a substantially equivalent level of protection as is afforded under current (P-MA) Mountain Area Protection Subdistrict zoning. The (P-MA) Mountain Area Protection Subdistrict is a unique protection zone where relatively few land uses are allowed. On the other hand, Commission rules do permit some activities in the (P-MA) Mountain Area Protection Subdistrict by Special Exception, where certain criteria can be met. Specifically, the construction of towers and access roads, and the associated proposed clearing activities, would not have a significantly different impact upon the affected areas than substantially similar structures which could be constructed by permit or permit by special exception in the existing (P-MA) Mountain Area Protection Subdistrict.

Since these ridgetops offer the best available, known site for the wind speeds required for this proposal, since this renewable energy source will provide significant environmental benefits to the region, and since all steps will be taken to minimize on-site impacts and buffer off-site uses and resources that may be affected, the Commission concludes that in this case the substantially equivalent protection criterion is met.

The Commission also concludes that provisions of Section 10.14,C,8,b(2) of the Commission's Land Use Districts and Standards should be met on the specific land under consideration for rezoning, and not on land which is not directly part of the rezoning proposal. Nonetheless, the Commission recognizes, as an added public benefit, the land set-aside agreement between Kenetech and Maine Audubon et. al. and endorses the concept of such an agreement in this instance.

4. The proposal meets provisions of the Commission's Criteria for Approval, 12 M.R.S.A. section 685-B(4)(A). Specifically, adequate technical and financial provisions have been made for complying with the requirements of the state's air and water pollution control and other environmental laws, and those standards and regulations adopted thereto. The Commission is persuaded that the petitioner has made sufficient preliminary provisions for compliance with such laws, standards and regulations within the context of its Preliminary Development Plan. Opportunity exists for Commission review and approval of the required Final Development Plan under provisions of Section 10.14,C,10,a,2 of the Commission's Land Use Districts and Standards.
5. The proposal meets the requirements of the Commission's Criteria for Approval, 12 M.R.S.A. section 685-B(4)(B), even though the petitioner has not yet provided detailed, site specific engineered drawings or plans for the proposed new access roads or the proposed upgraded access roads. Opportunity exists for Commission review and approval of the specific plans for roads and road upgrades in the context of the required Final Development Plan under provisions of

Section 10.14,C,10,a,2, (b) of the Commission's Land Use Districts and Standards.

6. The proposal may provisionally meet requirements of the Commission's Criteria for Approval, 12 M.R.S.A. section 685-B(4)(C). The Commission is persuaded that existing forestry and recreational uses of the affected area would not be unduly adversely affected by the proposed development; that the scenic character of the area, in particular the surrounding working forest, would not be unduly adversely affected by the proposed development; and that there are few natural or historic uses or resources in the area, and none that would be unduly adversely affected by the proposed development.

However, the petitioner has not yet submitted any detailed site-specific soils data, and the potential impacts upon resident avian populations have not yet been fully documented. Opportunity exists for Commission review and approval of site-specific medium intensity soils maps and more complete avian impact studies in the form of the required Final Development Plan under provisions of Section 10.14,C,10,a,2, (b) of the Commission's Land Use Districts and Standards.

7. The proposal meets provisions of the Commission's Criteria for Approval, 12 M.R.S.A. Section 685-B(4)(E) in that the proposal otherwise appears to be in conformance with the Commission's laws and the regulations, standards, and plans adopted pursuant thereto.
8. As a principle, the use of renewable, nonpolluting energy sources is preferable to use of fossil fuel, nuclear, or other pollution-producing power plants for energy production. The Commission is persuaded that the proposal conforms to provisions of Section 4,I,I the Commission's Comprehensive Land Use Plan relating to energy resources. Specifically, ~~the Commission concludes that the proposed~~ wind energy station represents a significant, publicly beneficial opportunity for energy diversification, and use of indigenous renewable resources to increase the state's energy self-sufficiency. The Commission is also persuaded that the proposal and related land uses would not be located in environmentally sensitive areas where there are overriding, conflicting, environmental and public values requiring protection. The Commission further concludes that need for the proposal to the people of Maine has been adequately demonstrated, and the proposed facility would be sited, constructed and landscaped to minimize intrusion on natural and human resources.
9. The proposed wind energy station and related land uses would meet provisions of Section 10.14,C of the Commission's Land Use Districts and Standards, in that the purpose of the (D-PD) Planned Development Subdistrict is to allow for large scale, well planned developments. It is the Commission's intent under provisions of this Section to consider development proposals separated from existing developed areas, provided that they can be shown to be of high quality and not detrimental to other values established in the Comprehensive Land Use Plan, and provided they depend upon a particular natural feature or location which is available at the proposed site. A permit may

be granted under provisions of this Section when the Commission is persuaded by a preponderance of all evidence that the location of the site is the best reasonably available for the proposed use and that the goals and policies of the Comprehensive Land Use Plan are served.

The Commission is persuaded that the evidence and testimony in the record supports the fact that the unique features of elevation, orientation to prevailing winds, the lack of significant incompatible uses in the area, and relatively remote yet accessible locations of the ridgelines, are the best reasonably available locations for the proposed wind energy station.

10. There is insufficient information in the record concerning soils and specific site suitability to support a final determination on these issues. However, based upon the preliminary soils data and the Preliminary Development Plan supplied by the petitioners, the Commission concludes that it is very likely that the sites are suitable for the proposed development or that the proposed development can be engineered to accommodate any potential deficiencies in specific site suitability. Based upon the foregoing, the Commission also concludes that, before any development can occur, the Final Development Plan must include site specific soils data and engineered plans for the proposed development on each site, all subject to the Commission's review and approval.
11. There is potential for on-site adverse impact to avian species from rotating turbine blades and the fragmentation of the high mountain habitat. Introducing permanent edge habitat along the turbine string corridors, roads and power lines may increase the number of raptors and other birds of prey. The Commission is persuaded that a final conclusion, regarding whether the proposal would have no undue adverse impact on avian resources of the area, requires additional study.

Specifically, Kenetech has made a good beginning on its avian research, and its plans for further research would help to fill in gaps in the avian information. Despite this, the avian information is still incomplete. The Commission concludes that more information, to which Kenetech has committed itself to provide, will clarify avian impacts as needed to demonstrate that the proposal would not have adverse avian impacts. These studies and results are subject to Commission review and approval before any development occurs.

12. If carried out in compliance with appropriate Conditions, the proposal will meet the Criteria for Approval, Section 685-B(4) of the Commission's Statutes, 12 M.R.S.A.

Therefore, the Commission approves the application of Kenetech Windpower, Inc., Oxford Paper Company, and S.D. Warren Company to rezone 864 acres of land from (P-MA) Mountain Area Protection Subdistrict, 431 acres of land (M-GN) General Management Subdistrict, and two acres of land from (P-SL2) Shoreland Protection Subdistrict to a (D-PD) Planned Development Subdistrict, for the purpose of constructing, operating and maintaining a 210 megawatt wind-powered electrical generating power plant, and approves the petitioners' Preliminary Development Plan, subject to the following conditions:

1. The Standard Conditions for Development Permits (ver. 10/90), a copy of which is attached, absent Standard Conditions #1 and #3.

Limits of Approval

2. This approval is limited to and includes only the proposals and plans contained in the application and supporting documents submitted by the permittee, as modified herein. All alterations, variations, and deviations from the plan and proposals contained in those documents are subject to review and approval of the Commission prior to implementation.

Noncompliance

3. Should the project be found, at any time, not to be in compliance with any of the Conditions of this approval, or should the permittee construct or operate this project in any way other than as specified in the application or supporting documents, as modified by the Conditions of Approval, then the terms of this approval shall be considered to have been violated.

Compliance with All Applicable Laws

4. The permittee shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to and during construction and operation.

Inspection and Compliance

5. Authorized representatives of the Commission or the Attorney General shall be granted access to the premises of the permittee at any reasonable time for the purpose of inspecting the construction or operation of the wind energy station, collecting samples, reviewing records, and assuring compliance with the Commission's rules and regulations, and the Conditions of this approval.

Submission of Final Development Plan

6. Within a maximum of 18 months following the date of this approval, the permittee shall file a Final Development Plan containing in detailed form the information specified below, and any other information the Commission deems necessary in order to enable its final review and approval. No development shall commence until a Final Development Plan is submitted to the Commission and approved.

The Final Development Plan application shall specify whether it is applied for all of the land which is the subject of the Preliminary Development Plan or for a section thereof. If for a section thereof, the Final Development Plan application shall list the specific sections for which final approval is sought, and include a schedule for submission of development plans for future phases. Because there are certain aspects of this proposal and its potential impacts that remain uncertain and subject to further study and clarification, the Commission encourages the permittee Kenetech to consider phasing construction of its project to assure, based upon experience, that it can proceed successfully. While the Commission does not impose phasing as a Condition of this approval, it reserves the right to do so, upon the completion of Kenetech's studies and clarification of all remaining issues, at the time of its action on the Final Development Plan.

7. The Final Development Plan shall include statements, drawings, specifications, covenants and conditions sufficient to fully detail the nature and scope of the proposed development, and all subject to the Commission's review and approval. Without limitation, the Final Development Plan application shall include:
 - (A) Engineered drawings that include, without limitation, all the information required on the site plan under the Preliminary Development Plan [Section 10.14,C,8,a(11)] of the Commission's Land Use Districts and Standards) plus the dimensions and heights, foundation design, material specifications, and elevations and colors of all buildings and structures;
 - (B) Engineered drawings that illustrate all new and upgraded roads, parking and traffic circulation areas. The dimensions of grades and curve radii are to be specified. The engineered drawings for the new and upgraded roads shall include cross-sections and plan views in sufficient number to accurately portray the road layouts, and profile drawings for their entirety. Any structures (such as bridges or culverts) related to the access road system shall be shown on scaled engineering plans and sections;
 - (C) If individual sewage disposal systems are proposed for any support facilities, an on-site soil report for each proposed disposal site shall be included. The report(s) are to be on Maine Human Services Department Form HHE-200 or any amended or replacement version thereof;

- (D) Engineered drawings that specify all surface water runoff and storm drainage systems, soil stabilization procedures, and plans for stabilization planting, screening, revegetation and erosion control;
- (E) A soils map of at least Class C medium-high intensity that covers those portions of the site where any development is proposed under the Final Development Plan. The description shall use the soil group designations utilized in the United States Department of Agriculture Soil Series names;
- (F) Specific pre-construction and post-construction monitoring plans designed to assess avian mortality. If this monitoring demonstrates that the project or portion thereof is likely to cause or has caused an unreasonable adverse impact on avian species as determined by the Commission, Kenetech will develop, submit for review and approval, and implement appropriate measures to avoid or mitigate such demonstrated adverse impact as the Commission determines appropriate; and
- (G) A hydrologic and hydraulic engineering study documenting anticipated runoff and evaluating topographic, soil, and vegetation conditions. This study shall define the type, size, spacing and site specific details proposed to avoid erosion or other adverse environmental impacts on mountain and related resources. This study shall simultaneously be submitted to the Commission, the Maine Soil and Water Conservation Commission, and the Franklin County Soil and Water Conservation District for review.
- (H) A specific evaluation of the proposal in response to the recommendations of the Maine Soil and Water Conservation Commission's Policy on Windpower Stations in High Mountain Areas of Maine dated January 12, 1994, especially addressing alternatives to road construction, including, but not limited to, use of helicopter transports and snowmobiles to minimize the need for new roads.
- (I) A full evaluation of the economic viability of the project and each of its phases, together with a report of plans for marketing the power generated by the project. The report shall describe any existing or proposed power contracts and a marketing plan for the sale of power, including provisions for phases if the project is to be constructed in phases.

Expiration Upon Transfer

8. This permit is not transferrable or assignable to any person or party, but shall expire upon the assignment or transfer of the real estate, wind energy station, or operation thereof which is the subject of this permit, unless prior approval for permit transfer is granted by the Commission. The permittee shall notify the Commission at least 45 days prior to any intended assignment or transfer of the real estate, the wind energy station, or operation thereof.

Restricted Vehicular Access

9. The permittee shall gate roads above 2700 feet msl, or take similarly effective provisions to limit access by unauthorized vehicles, and otherwise prevent unauthorized vehicular access to roads and access ways constructed on areas of cryic soils and/or slopes greater than 15 percent grade, and other areas sensitive to soil disturbance or erosion.

Bonding Requirements

10. The permittee shall submit a bond and/or other financial security, in form and amount satisfactory to the Commission, securing the performance of the permittee's obligations hereunder and the remediation of any environmental damage caused by the project.
11. The permittee shall submit an escrow closure account or other financial security, in form and amount satisfactory to the Commission, securing the decommissioning of the proposed wind energy station, closure, and post-closure maintenance of the sites. This financial assurance mechanism must be sufficient to fund returning the sites to a condition as near to their original condition as practically possible, in the event that decommissioning or closure of the proposed wind energy station occurs for any reason.

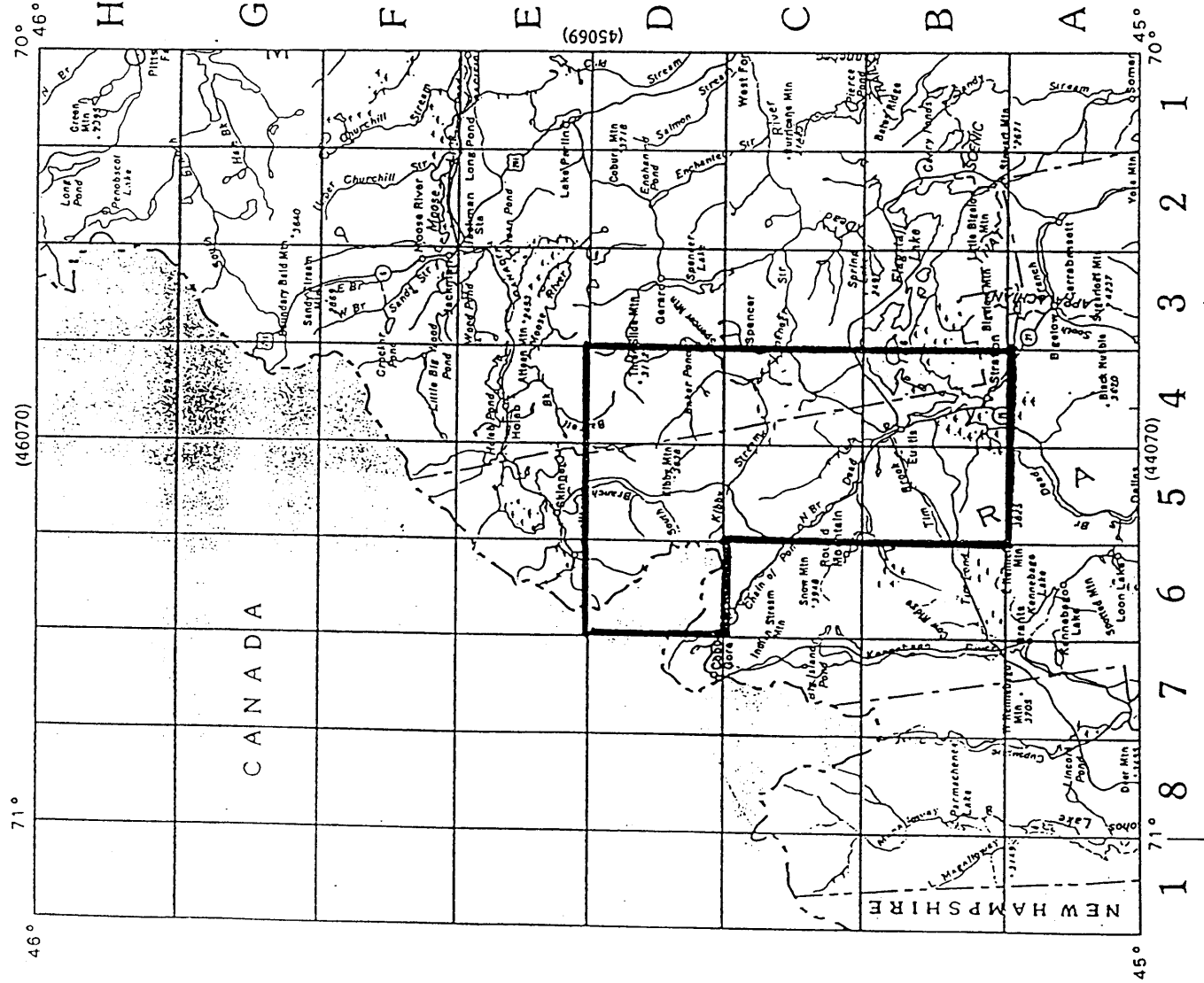
Avian Assessment

12. The permittee shall submit to the Commission the 1994 avian assessment study as expeditiously as possible upon issuance of this Preliminary Development Plan approval.

Any person aggrieved by this decision of the Commission may, within 30 days, appeal this decision to the Superior Court in accordance with 5 M.R.S.A., chapter 375, subchapter VII.

DONE AND DATED AT CARIBOU, MAINE THIS 17TH DAY OF AUGUST, 1995

By: John S. Williams
John S. Williams, Director



7.5 MINUTE QUADRANGLE NAMES
45070

- | | | | |
|----|----------------------------|----|------------------------|
| A1 | Witham Mountain | E1 | Long Pond |
| A2 | Poplar Mountain | E2 | Catheart Mountain |
| A3 | Sugarloaf Mountain | E3 | Attean Pond |
| A4 | Black Nubble | E4 | Holeb |
| A5 | Quill Hill | E5 | Skinner |
| A6 | Kennebago Lake | E6 | Boundary Pond |
| A7 | Kennebago | E7 | |
| A8 | Lincoln Pond | E8 | |
| B1 | East Carry Pond | F1 | Churchill Stream |
| B2 | Little Bigelow Mountain | F2 | Heald Pond |
| B3 | The Horns | F3 | Jackman |
| B4 | Stratton | F4 | Stony Brook |
| B5 | Tim Mountain | F5 | Skinner NE |
| B6 | Black Mountain | F6 | |
| B7 | Little Kennebago Lake | F7 | |
| B8 | Parmachenee Lake | F8 | |
| C1 | Pierce Pond | G1 | Canada Falls Lake |
| C2 | Basin Mountain | G2 | Boundary Bald Mountain |
| C3 | King and Bartlett Lake | G3 | Campbell Brook |
| C4 | King and Bartlett Mountain | G4 | Rivière du Monument |
| C5 | Jim Pond | G5 | |
| C6 | Chain of Ponds | G6 | |
| C7 | Northwest Pond | G7 | |
| C8 | Twin Peaks | G8 | |
| D1 | Johnson Mountain | H1 | Foley Pond |
| D2 | Enchanted Pond | H2 | Penobscot Lake |
| D3 | Spencer Lake | H3 | Lac Portage |
| D4 | Tumbledown Mountain | H4 | |
| D5 | Klibby Mountain | H5 | |
| D6 | Merrill Mountain | H6 | |
| D7 | Louise Mountain | H7 | |
| D8 | | H8 | |

ZP 536
KENETECH
Windpower, Inc.

- | | | | |
|----|-------------------|----|--|
| A1 | Bosebuck Mountain | E1 | |
| B1 | Rump Mountain | F1 | |
| C1 | Moose Bog | G1 | |
| D1 | | H1 | |

FIGURE II.B. - 4
USGS QUADRANGLES
CONTAINING NEWES PROJECT



STANDARD CONDITIONS OF APPROVAL FOR ALL DEVELOPMENT PERMITS

1. The yellow plastic permit certificate must be posted in a visible location on your property during development of the site and construction of all structures approved by this permit.
2. This permit is dependent upon and limited to the proposal as set forth in the application and supporting documents, except as modified by the Commission in granting this permit. Any variation therefrom is subject to the prior review and approval of the Maine Land Use Regulation Commission. Any variation from the application or the conditions of approval undertaken without approval of the Commission constitutes a violation of Land Use Regulation Commission law.
3. Construction activities permitted in this permit must be begun within two (2) years of date of issue and completed within five (5) years from date of issuance of this permit. If such construction activities are not begun and completed within this time limitation, this permit shall lapse and no activities shall then occur unless and until a new permit has been granted by the Commission.
4. The recipient of this permit ("permittee") shall secure and comply with all applicable licenses, permits, and authorizations of all federal, state and local agencies including, but not limited to, natural resources protection and air and water pollution control regulations and the Subsurface Wastewater Disposal Rules of the Maine Department of Environmental Protection and the Maine Department of Human Services.
5. Setbacks of all structures, including accessory structures, from waterbodies, roads and property boundary lines must be as specified in conditions of the permit approval.
6. In the event the permittee should sell or lease this property, the buyer or lessee shall be provided a copy of the approved permit and advised of the conditions of approval. The new owner or lessee must contact the Land Use Regulation Commission to have the permit transferred into his/her name and to reflect any changes proposed from the original application and permit approval.
7. The scenic character and healthful condition of the area covered under this permit must be maintained. The area must be kept free of litter, trash, junk cars and other vehicles, and any other materials that may constitute a hazardous or nuisance condition.
8. The permittee shall not advertise Land Use Regulation Commission approval without first obtaining Commission approval for such advertising. Any such advertising shall refer to this permit only if it also notes that the permit is subject to conditions of approval.
9. Once construction is complete, the permittee shall notify the Commission that all requirements and conditions of approval have been met. The permittee shall submit all information requested by the Commission demonstrating compliance with the terms of the application and the conditions of approval. Following notification of completion, the Commission's staff may arrange and conduct a compliance inspection.