BEFORE THE STATE OF WASHINGTON

ENERGY FACILITY SITE EVAUATION COUNCIL

In the Matter of Application No. 2003-01: SAGEBRUSH POWER PARTNERS, LLC; KITTITAS VALLEY WIND POWER PROJECT	EXHIBIT 21 (AL-T)

APPLICANT'S PREFILED DIRECT TESTIMONY
WITNESS # 2: ANDREW O. LINEHAN

Q Please state your name and business address.

A My name is Andrew Linehan and my business address is Suite 1300, 825 NE Multnomah, Portland, OR 97232-2146.

Q What is your present occupation, profession; and what are your duties and responsibilities?

A I am employed by CH2M Hill. CH2M Hill provides environmental consulting services to organizations such Zilkha Renewable Energy. We assist those organizations in analyzing environmental impacts and land use compatibility of projects such as the Kittitas Valley Wind Power Project. I am manager of the Portland office of CH2M Hill as well as a senior environmental planner. My duties regarding this project were to manage several of the studies

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prepared for this project, as well as to directly supervise the land use and community services sections of the ASC. I assisted in the preparation of the Application for Site Certification for this Project. Q Would you please identify what has been marked for identification as Exhibit 21-1 (AL-1).

A Exhibit 21-1 (AL-1) is a résumé of my educational background and employment experience.

Q Please summarize work your work in the industry in permitting other energy facilities.

A I am employed by CH2M HILL as an environmental planner and project manager focused on siting, permitting, and development of wind energy facilities, a role I had for FPL Energy's Stateline Wind Project, constructed on the Oregon/Washington border, as well as for the Vansycle and Klondike Wind Projects, both operating in Oregon. I have also had a role in the environmental studies supporting the development process for Zilkha Renewable Energy's Wild Horse Wind Project, as well as for wind projects for PPM Energy, and Northwestern Windpower, among others. I have been employed by CH2M HILL for 16 years, and prior to that I worked for the Bonneville Power Administration for 4 years.

Q Are you sponsoring any portions of the "Application for Site Certification" and "Clarification Information Provided to EFSEC Independent Consultant for EIS Preparation," for the Kittitas Valley Wind Power Project?

A Yes. I am sponsoring the following sections for which I was primarily responsible for the analysis and development:

Section 1.4 Mitigation, subsections 1.4.1.2 (Fire); 1.4.1.7 (Public

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Services and Socioeconomic Impacts); and 1.4.2.2 (Mitigation for Operations Impacts on Fire).

Section 2.1.5 County Land Use Plans and Ordinances

Section 5.1.1 Land Use Existing Conditions

Clarification Information Attachment 9

Section 5.1.2 Land Use Environmental Impacts

Section 5.1.5 Land Use Recreation

Section 5.1.7 Land Use Agriculture and Crops

Section 5.3 Public Services and Utilities (Not including Section 5.3.3.7 Communication)

Clarification Information Section 5.3 Public Services and Utilities

Clarification Information Attachment 4

Q What exhibits that are part of the Application are you sponsoring?

A I am sponsoring the following exhibits to the Application:

Exhibit 15 Kittitas County Code, Utilities Chapter 17.62 and Amendments, including KCC Chapter 17.61A

Exhibit 18 Project Area Zoning Designations, Aerial Photo

Exhibit 19 Project Area Fire Districts

Q Are you familiar with these sections of the Application and Exhibits?

A Yes

Q Did you prepare these sections and exhibits, or, if not, did you direct and/or supervise

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their preparation?

A Yes.

Q Is the information in these sections and exhibits within your area of authority and /or expertise?

A Yes

Q Are the contents of these sections and exhibits of the Application either based upon your own knowledge, or upon evidence, such as studies and reports as a reasonably prudent persons in your field and expertise are accustomed to rely in the conduct of their affairs?

A Yes.

Q To the best of your knowledge, are the contents of these sections and exhibits of the Application true?

A Yes, except for the clarification provided below.

Q Do you incorporate the facts and content of these sections and exhibits as part of your testimony?

A Yes.

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Q Are you able to answer questions under cross examination regarding these sections and exhibits?

A Yes.

Q Do you sponsor the admission into evidence of these sections and exhibits of the Application?

A Yes.

Q Are there any modifications or corrections to be made to those portions of the Application that you are sponsoring?

A Yes. In Section 5.1 "Land Use," page 7, the ASC states that "Major Alternative Energy Facilities and Special Utilities" are allowed as a conditional use, and that the Project "meets the County criteria for a CUP." While this is true, as stated elsewhere in Section 5.1, Kittitas County has adopted a new Chapter 17.61A, which establishes provisions for "Wind Farm Resource Overlay" zones. In Ordinance No. 2002-13, which adopted Chapter 17.61A, Kittitas County amended KCC Section 17.61.020(D) to require that "wind farms" must be authorized pursuant to the "Wind Farm Resource Overlay Zone" process codified in Chapter 17.61A.

Q In your capacity as a project manager and planner assisting in the development of the Zilkha Renewable Energy projects and other projects, have you evaluated the compatibility of major commercial wind energy facilities with existing and allowed land uses on adjacent and surrounding properties?

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A Yes.

Q Please describe the factors you consider in conducting this evaluation, particularly for Washington projects.

A Major commercial wind energy facilities in the Northwest are always proposed in rural areas. This is because wind energy facilities require windy locations, in close proximity to an electric transmission grid with capacity to bring the power to market, and with sufficient land area to accommodate the facilities. In Washington, some rural counties are required to comply with the Growth Management Act ("GMA"), which among other requirements, requires such counties to protect rural lands for agricultural, forestry, mineral, and other industries that are dependent upon natural resources available in rural locations. Additionally, and importantly, the GMA requires such counties to adopt policies and development regulations that prohibit urban land uses, such as residential development, that require the extension of urban services into rural areas. A cornerstone of the GMA is an "anti-sprawl" goal, which prohibits the conversion of rural lands to inappropriate residential uses.

Wind energy leases and facilities provide significant financial benefits to rural landowners, better enabling them to retain ongoing rural/agricultural land uses in areas that are often threatened by economic forces compelling conversion to non-agricultural (*e.g.* residential) uses. Wind energy facilities convert relatively insignificant amounts of agricultural land to non-agricultural activities, while allowing existing agricultural activities such as grazing and cultivating crops to continue unchanged around wind energy turbine towers and related and supporting facilities. Wind energy projects do not require the extension of urban services such

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as water or sewer services. In these rural locations that are planned and zoned for rural/agricultural land uses, it is my opinion that wind energy facilities are highly compatible with rural/agricultural land uses, provide financial incentives to rural landowners to maintain agricultural and open space land uses, and help counties implement and enforce the GMA's "anti-sprawl" goals.

Aside from land use planning and zoning compatibility, the major "compatibility" factor with adjacent and surrounding land uses is typically the visual impact of wind energy facilities. I am aware that Tom Priestley is offering testimony on behalf of the Applicant concerning this issue.

Q Would you please summarize and briefly describe your evaluation of the Project's compliance with land use plans, standards and criteria, including the anticipated land impacts resulting from construction and operation of the project?

A As stated in section 5.1 of the Application for Site Certification, the Kittitas Valley Wind Power Project is proposed in an area northwest of the city of Ellensburg, which is characterized by a hilly rolling landscape of rangeland, with approximately 60 dwellings within one mile of the proposed Project. Many of the residences are not permanent or full time residences, but rather are recreational or seasonal cabins. Approximately seven residences are in the immediate project area, and all but one of them have signed option agreements with the Applicant. Aside from the residences, the land use within the entire study area consists of open space and agricultural uses, particularly cattle grazing. Forest cover exists to the north of the project, but there are no commercial forestry operations taking place in the immediate vicinity of the project.

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The property on which the wind turbines are proposed contains two zoning designations: Agricultural-20 and Forest and Range. Areas east of Highway 97 are zoned Agricultural-20. According to the county zoning code, the Agricultural-20 zone is dominated by farming, ranching, and rural lifestyles, and the purpose of this zoning classification is to preserve fertile farmland from encroachment by non-agricultural uses and to protect the rights and traditions of those engaged in agriculture. The zoning code provides that the Forest and Range zone is an area where natural resource management is "the highest priority" and where subdivision and development of lands for uses and activities incompatible with resource management are discouraged.

The Kittitas Valley Wind Project is proposed in an area that Kittitas County has planned and zoned for natural resource and agricultural land uses, and not for residential subdivisions. The area is outside of any urban growth boundary and is not considered compatible for suburban or urban residential subdivision activity. Furthermore, most of the parcels in the project area are not currently served by public services such as water, sewer, garbage collection, electricity or fire protection. Section 5.1 also includes an analysis of relevant comprehensive plan policies, which establish the essential policy framework upon which the county zoning code relies. Based upon the language in the zoning code, the comprehensive planning policies analyzed in Section 5.1, and based upon my experience in evaluating and seeking permits for wind energy facilities in other locations, the project is fully compatible with the existing underlying zoning, as well as the comprehensive planning policies adopted by Kittitas County to support the zoning designations. As is indicated by the scattering of residential uses in the project area, this is an area of Kittitas County that appears to have historically been under pressure for residential subdivision activity. This may be due in part to comparable economic

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opportunities available to land owners by residential subdivision of property versus making use of the property for agricultural activities. However, in the context of Kittitas County's post-GMA planning and zoning activity, ambitions to further subdivide the property would appear to be unrealistic. It is my opinion and belief that a wind energy facility in this location is both fully compatible with ongoing agricultural use of the property (particularly grazing), will remove very little land from agricultural production and use, and it will provide financial incentives to property owners that will reduce the pressure to change land uses from agricultural and open space to residential uses. Moreover, given the fact that rural areas of Kittitas County are the only reasonable locations in the county for wind energy, this facility provides an opportunity to make economic use of an important natural resource, namely highly energetic winds.

I am aware that two other significant commercial-scale wind energy facilities are proposed in Kittitas County. Given the insignificant amount of land removed from agricultural use and production by these facilities, and given the compatibility of wind energy with the comprehensive planning and zoning in Kittitas County, I do not anticipate that construction and operation of the Kittitas Valley Wind Power Project will result in any significant cumulative effects upon Kittitas County's overall land use planning and zoning.

In terms of the land use impacts during the construction phase of the Facility, these impacts would be typical construction phase impacts, including traffic impacts, dust impacts, potential stormwater impacts, and the like. I am aware that these impacts are addressed in the testimony offered by other witnesses.

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Q Mr. Linehan, are you familiar with Kittitas County Code Chapter 17.61A, "Windfarm Resources Overlay Zone"?

A Yes.

Q Have you analyzed any standards in Chapter 17.61A which might apply to the Kittitas Valley Wind Power Project?

A Yes, I have.

Q Please explain your evaluation of the compatibility of the Kittitas Valley Wind Power Project with KCC Chapter 17.61A.

A Chapter 17.61A is primarily a procedural ordinance, versus an ordinance that imposes specific siting criteria on "wind farms." Section 17.61A.010 states that the "purpose and intent" of the chapter "is to establish a process for recognition and designation of properties located in areas of Kittitas County suitable for the location of wind farms, and to protect the health, welfare, safety, and quality of life of the general public, and to ensure compatible land uses in the vicinity of the areas affected by wind farms." Chapter 17.61A is a companion to KCC 17.61.020(D), which provides that wind farms may be authorized in accordance with Chapter 17.61A in the Agricultural-20, Forest and Range, Commercial Agriculture, and Commercial Forest zones.

Section 17.61A.040 requires approvals by the Board of County Commissioners of any wind farm proposed within the Resources Overlay zone. This section requires that wind

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farms be authorized through approval of a "wind farm resource development permit in conjunction with an approval of a development agreement." Additionally, in order to obtain a wind farm development permit, and in order to be eligible to negotiate a development agreement, "a comprehensive plan amendment or subarea plan for a wind farm resource overlay district must be processed by the county concurrent with [a] rezone application, development permit and development agreement required for approval of a wind farm." KCC 17.61A.040(4). The development agreement approved by the Board of County Commissioners must set forth development standards, "which may include, but are not limited to," densities, number, size, setbacks, and locations of turbines; mitigation measures and such other development conditions as deemed appropriate by the Board of County Commissioners to be necessary "including measures to protect the best interests of the surrounding property or neighborhood or the county as a whole;" and "other development standards" including those stated in the County's development agreements ordinance. (KCC 17.61A.040(1)). In order to approve the development permit, development agreement, comprehensive plan amendment and rezone, the County Board of Commissioners must make the following findings:

a. The proposal is essential or desirable to the public convenience;

b. The proposal is not detrimental or injurious to the public health, peace, or safety or to the character of the surrounding neighborhood; and

c. The proposed use at the proposed location(s) will not be unreasonably detrimental to the economic welfare of the County and it will not create excessive public cost for facilities and service." KCC 17.61A.040(3).

As these provisions demonstrate, under Chapter 17.61A, the Board of County Commissioners retains wide latitude in determining whether particular wind farms are

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"desirable to the public convenience" and whether they are "detrimental or injurious to the public health, peace, or safety to the character of the surrounding neighborhood." Chapter 17.61A provides no objective standards or benchmarks for an applicant to determine whether a permit will be approved under the ordinance. While the standards are similar to traditional conditional use permit criteria, Chapter 17.61A in essence blends the legislative function of the County Board of County Commissioners to adopt comprehensive plans and to rezone property, with site specific development permitting. This decision is at the heart of the ordinance and it seems to provide very significant discretion to the Board of County Commissioners.

Notwithstanding the discretion retained by the Board of County Commissioners, the only criteria in the ordinance deal with densities, number, size, setbacks, locations of turbines, mitigation measures to protect the best interests of the surrounding property or neighborhood, and other traditional development standards. However, the ordinance does not actually define these standards, but appears to leave them to a case-by-case determination. In my opinion, the design proposed for the Kittitas Valley Wind Power Project addresses these considerations.

The required construction set-back distances under current County zoning for the Project area are as follows:

AG20:	**Forest and Range:**
Front – 25ft	Front – 25ft
Side – 5ft	Side – 10ft
Rear – 25ft	Rear – 10ft

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The Project has been designed to incorporate setbacks from all property lines and houses of a distance equal to or greater than tip-height of the proposed wind turbines (260 ft to 410 ft, depending on which turbine model is used) which is well in excess of these setback requirements.

The Project is designed to be compatible with surrounding land uses, particularly agricultural land uses. To the extent that owners of surrounding or abutting properties may believe that the Project will diminish their opportunities to develop their land (*e.g.* through residential subdivisions), the land is not planned or zoned for urban or suburban residential use. While the subjective concerns of some land owners regarding visual impacts may cause them to change their ambitions for future land use, the Project has taken measures to set facility components at least tip-height distance (260 ft to 410 ft, depending on which turbine model is used) back from adjacent property lines and the Applicant anticipates that adjacent and surrounding lands will continue to be used for rural/agricultural uses. Moreover, while I have not been actively involved in the SEPA process for this Project, I am aware that a Draft Environmental Impact Statement has been completed for the facility, and that the Applicant is agreeing to a wide range of mitigation measures and other development conditions in order to ensure land use compatibility, as well as avoidance, minimization, mitigation of probable, significant adverse environmental impacts. While I am not the witness qualified to testify with regard to this specific EIS and its SEPA-related conditions and mitigation measures, generally speaking, the SEPA process is the traditional venue for addressing these considerations.

While I understand that the Board of County Commissioners will not issue a local site

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development permit in this Application, if an application made for a site development permit were a traditional "*quasi-judicial*" development permit application (such as a conditional use permit), under the criteria set forth in Chapter 17.61A, it is my opinion that this proposal satisfies the criteria set forth in Section 17.61A.040(1). I made this judgment based in large part upon my evaluation of the zoning and comprehensive plan policies affecting the project site and surrounding lands. In typical development permit application cases, an applicant possesses the right to rely on these designations, policies and standards.

Q Would you please summarize and briefly describe your evaluation of impacts to agriculture and crops?

A As described in ASC Section 5.1 and above, land uses in the Project area are predominantly open space and grazing, with limited residential development. The only agricultural activity on the Project site is livestock grazing. None of the land is irrigated and no crops are grown on the parcels. Less than half of the property owners on whose land the Project facilities are proposed currently use the land for grazing. Less than half of the DNR properties within the Project are currently used for grazing.

During construction of the Project, the Applicant will make arrangements with property owners to remove livestock from areas where blasting or heavy equipment operations are taking place. During the operation phase, grazing activities can resume as before. The Project will be highly compatible with grazing activities. Livestock routinely graze underneath operating wind turbines across the US and throughout the world. The total area permanently occupied by the Project will be approximately 93 to 118 acres, much of

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which is not currently used for grazing. As part of the mitigation for potential impacts to plants and animals, the Applicant plans to acquire a parcel of approximately 550 acres and exclude cattle from this parcel in order to restore and enhance its value as habitat. In the context of the large amount or rangeland available for grazing in Kittitas County, these impacts are insignificant. Moreover, given the thousands of acres of rangeland in the County, the cumulative effects of all proposed Kittitas County wind energy facilities on rangeland (i.e., approximately 330 acres) will also be insignificant.

Q Would you please summarize and briefly describe your evaluation of the project's impacts upon public services and utilities?

A With the assistance of others, I prepared Section 5.3 of the Application for Site Certification. Section 5.3 includes an analysis of public services, including police, fire, schools, parks, maintenance, communications, water/stormwater, sewer/solid waste, and other governmental services or utilities. I am aware that Chris Taylor, the Applicant's project development manager, has been working with the local fire districts to address fire service needs during construction, and on an ongoing basis.

Unlike other development activity traditionally proposed in rural areas, wind energy facilities have very few, if any, impacts upon public services. While some temporary elevated needs for local law enforcement services may arise during construction (which are addressed in the ASC), and while fire control is a very important issue for any major construction project in a rural area, this project is not anticipated to have impacts upon schools, parks and recreation or water and wastewater services. Impacts upon the local electric utility (Kittitas PUD No. 1) are generally anticipated to be positive, by the

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addition of a new source of power to the regional grid. I understand that the Applicant is addressing potential impacts on telecommunications through other testimony. In short, with regard to the public services and utilities that I analyzed, and as further described in Section 5.3.4, I do not anticipate this project will have any unmitigated impacts upon public services. Moreover, in view of other pending or potential wind power facilities proposed in the county, I do not anticipate any cumulative impacts or effects on public services and utilities.

Q Would you please summarize and briefly describe your evaluation of the project's impacts upon recreational facilities and services?

A ASC Section 5.3.2.5 (Table 5.3.2-1) provides a detailed list of parks and recreational facilities and activities within a 25-mile radius of the Project of beyond. As provided in the ASC, during the construction phase, some workers will likely utilize campgrounds and parks, and may also take advantage of the recreational opportunities within the county and throughout the region. It is possible that recreational amenities which are already crowded during peak demand periods in the summer months could temporarily become more crowded during the peak construction weeks, with other users potentially displaced by construction workers. During operation of the project, park and recreation facilities which exceed capacity now may see nominal additional demand. This demand will be limited by the low number of employees (8-9) and their family members. Moreover, in view of other pending or potential wind power facilities proposed in the county, I do not anticipate any cumulative impacts or effects on recreational facilities and services.

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EXHIBIT 21-1 (AL-1)

Andrew O. Linehan, AICP, PMP
Senior Environmental Planner and Project Manager

Résumé Of Educational Background And Employment

Education
Master of Public Affairs and Urban and Regional Planning, Princeton University B.A., International Studies, Reed College (Phi Beta Kappa)

Experience

Mr. Linehan, a member of the CH2M HILL planning staff since 1988, is a certified Project Management Professional (PMP) who specializes in managing siting studies and environmental, land use, and energy planning. Over the last few years much of his focus has been on the wind energy market and he has become known in the Pacific Northwest as a regional expert in commercial scale wind project development.

Mr. Linehan was the project manager for the Oregon EFSC application, Washington SEPA EIS, and site civil design for the 300-MW Stateline Wind Project. This wind project, which is the largest in the Pacific Northwest and one of the largest projects in the world, has been constructed by FPL Energy on a site located on the Washington/Oregon border south of Walla Walla, Washington. Mr. Linehan managed a team that helped site turbines, roads, and transmission; completed environmental surveys; negotiated settlement agreements with potential intervenors; and provided site civil design and construction services. The Stateline Wind Project Oregon Site Certificate Application was reviewed and approved by OR EFSC faster than any previous project (8 months), and the project has been constructed. Since then, Mr. Linehan has been working on several expansions of the Stateline Wind Project in Oregon and Washington which will add at least 150 MW by 2005.

Mr. Linehan has represented the wind industry in negotiations with the Washington Department of Fish and Wildlife over guidelines for siting and permitting wind energy projects in Washington. The negotiations, convened by the Renewable Northwest Project, focused on revising earlier WDFW guidelines for wind projects. Mr. Linehan was the leader for the wind industry in the negotiations focusing on habitat impacts and mitigation (other elements of the negotiation focused on pre-permit studies and alternative mitigation paths). The negotiations occurred during 2002 and 2003 and resulted in revised guidelines issued in the spring of 2003.

Mr. Linehan is the consultant project manager for Zilkha's Wild Horse Wind Project, a wind project located east of Ellensburg. For that project he is managing the development of several exhibits for the EFSEC Application for Site Certification, including visual impacts, traffic, geology, land use, and socioeconomics.

For PPM Energy, Mr. Linehan is leading the preliminary environmental studies and other development activities for three sites in Oregon and Washington that would likely involve 300 to 500 MW of wind energy. Early work has included evaluations of permitting issues; "zone of visual influence" analysis to evaluate the visual impacts of alternative layouts; field support for mapping and staking; and development of a permitting strategy for each project. The projects will involve a SEPA EIS for one of the Washington projects and potentially an Energy Facility Site Certificate Application for one of the Oregon sites.

Mr. Linehan was the project manager for the preparation of the Conditional Use Permit Application and related environmental studies for the Vansycle Wind Project, a 24.9 MW wind generation facility in northeast Oregon developed by FPL Energy, with the output purchased by PGE. The Vansycle Wind Project was the Pacific Northwest's first commercial scale wind generation project. Mr. Linehan led the CH2M HILL team that conducted biological and cultural resources surveys, land use analysis, and visual impacts analysis and prepared the Conditional Use Permit Application, the primary regulatory process for the project. He testified before the Umatilla County Planning Commission during its hearing on the Conditional Use Permit, which was granted in October, 1997. CH2M HILL then completed the "balance of plant" design (i.e., all but the turbine design), including access roads, transmission, and substation. Construction began in March, 1998 and was completed in November, 1998.

Mr. Linehan is leading the CH2M HILL team that is supporting Klickitat County, Washington, in the development of a Programmatic Environmental Impact Statement (PEIS) to address energy siting and permitting in Klickitat County. The County has substantial wind resources, and is the proposed location of several commercial-scale wind energy projects. The PEIS will address the environmental impacts of wind and other energy generation, and identify areas where commercial energy facilities should be allowed to be sited through an expedited permitting process.

Mr. Linehan was project manager for the permitting studies for the 24-MW Klondike Wind Project for Northwestern Wind Power, a subsidiary of the Golden Northwest aluminum smelter company. The project, located in Sherman County, Oregon, was constructed in 2001 and is now operational. He is currently assisting with the permitting of a 75 MW expansion of the project proposed by PPM Energy.

Other wind projects with which Mr. Linehan has been associated have included the Maiden Wind Project (BPA), for which he was senior reviewer of CH2M HILL's work on the project's EIS; the Columbia Wind Ranch (for Cielo Wind Power);, RES North America's Hopkins Ridge Wind Project, and other projects in early stages of development.
Mr. Linehan was the project manager for CH2M HILL's role in the development of the Grizzly Power Generation Project, a 980-MW combined cycle gas-fired generation project that Cogentrix, Inc. proposed to construct in central Oregon. CH2M HILL prepared the Energy Facility Site Certificate (EFSC) application and conducted all related environmental studies, including air quality (Prevention of Significant Deterioration permit), wildlife, wetlands, archaeology, water quality, noise, visual impacts, and related studies. The Site Certificate Application was filed with the Oregon Office of Energy in

November, 2001, but the project has since been postponed. Much of the information developed for the EFSC application was to be used for an Environmental Impact Statement prepared for the US Forest Service, which must authorize use of Forest Service lands for rights-of-way. CH2M HILL also managed the development of a water supply wellfield, including drilling a series of 1,600-foot deep groundwater wells.

Mr. Linehan was the project manager for the identification of a corridor for a 58-mile 24" high pressure gas pipeline for NW Natural in the western and southern Portland metropolitan area. CH2M HILL was selected to identify a preferred and alternative ½ mile corridors from the Columbia County/Washington County boundary northwest of Portland to Molalla that would be the basis for NW Natural's application to the Oregon Energy Facility Siting Council (EFSC). CH2M HILL developed a siting process that used a combination of Geographic Information Systems (GIS) mapping and Decision Science methods to select an optimal corridor. Mr. Linehan developed and managed the siting process, managed staff and subconsultants to complete the necessary resource analysis, and testified about the siting process to EFSC and to the general public. He also provided analysis and data to support the preparation of the Notice of Intent (NOI) for the project.

Mr. Linehan was the project manager for the Application for Site Certification for KVA Resources/CSW Energy Inc.'s Northwest Regional Power Facility, a proposed 838-MW combined cycle combustion turbine project located near Creston, Washington. Mr. Linehan managed an interdisciplinary team to evaluate all potential environmental impacts, including air quality, water use and quality, wetlands, wildlife, land use, aesthetics, and cultural resources. He has testified to the Washington State Energy Facility Site Evaluation Council, developed testimony for the adjudicative process, and helped negotiate a mitigation settlement agreement with the Washington Department of Fish and Wildlife. The project received its Site Certificate in 1996.

Mr. Linehan was principal planner for a project with Sierra Pacific Power (SPP). CH2M HILL assisted SPP in implementing a new Nevada statute (SB 497) that requires utilities to consider environmental criteria in preparing least-cost resource plans and acquiring generation and conservation resources. Mr. Linehan designed and implemented a methodology for evaluating the relative environmental impacts of generation projects offered to SPP in response to an SPP request for resources. He assisted SPP in its participation in the rulemaking for SB 497, presented a "white paper," and appeared as an expert witness before the Public Service Commission of Nevada.

Mr. Linehan was the project manager for the East Sammamish Transmission Project for Puget Sound Power and Light Company. The approach Mr. Linehan developed for the siting studies for this 20-mile-long, 230-kV transmission line in the Seattle metropolitan area, used a number of innovations. The affected community was involved early in the project development through a Citizen Advisory Committee and through community meetings. The Citizen Advisory Committee helped define the study area, evaluated technical alternatives, and reviewed available information about electric and magnetic fields.

The identification and evaluation of alternative alignments was facilitated by the use of ARC/INFO Geographic Information Systems technology.

Mr. Linehan was principal planner on two transmission line siting projects on Oahu for Hawaiian Electric Company (HECO): Waiau-CIP and Waiau-Makalapa No. 2. These projects involved developing a route selection methodology (including public involvement components); analyzing land use, land regulation, permitting requirements, and environmental considerations; developing and analyzing constraint criteria; and selecting study areas, corridors, alignments, and rights-of-way. The HECO projects required working with federal, state, city, and/county agencies; neighborhood groups, landowners; and utilities. Mr. Linehan was principal planner and author of routing reports and environmental assessments for the two projects. Both projects are in operation. Mr. Linehan was also author and senior reviewer of two transmission line projects on the island of Hawaii for Hawaii Electric Light Company—the Keahole to Kailua and Keahole to Keamoku 69-kV lines. Both projects involved a considerable degree of public interest and controversy, in part because they are located in the resort area of the Big Island.

Mr. Linehan assisted the Bonneville Power Administration (BPA) in its Business Plan Environmental Impact Statement (EIS), BPA's evaluation of alternative roles for BPA in regional energy delivery. Mr. Linehan was a member of the BPA core project staff, and was responsible for developing conceptual alternatives and analytical methods, drafting text, and responding to internal and public comments.

Mr. Linehan was the project manager for the Resource Programs Final EIS for BPA, which analyzes programmatically BPA's options for long-term conservation and generation resource acquisitions. He worked in-house at BPA to manage revisions to the EIS technical analyses, responses to public comments on the Draft EIS, and document production.
Mr. Linehan assisted BPA in the EIS on the Delivery of the Canadian Entitlement, BPA's programmatic analysis of transmission and other alternatives for delivering to Canada its share of the downstream benefits of hydroelectric facilities developed through the Columbia River Treaty. He helped define and develop alternatives, structure environmental analyses, and draft sections of the analysis. He prepared the first drafts of the Record of Decision on BPA's proposed action. He was also senior consultant for a recent project for BPA to develop a methodology for measuring environmental progress in BPA's conservation and energy resource acquisition programs.

Mr. Linehan also has experience siting other energy facilities, including a combustion turbine complex in Idaho and thermal powerplants in Texas with several thousand megawatts of capacity.

Mr. Linehan has also managed major environmental impact statement projects, including an EIS and Supplemental EIS for the Space and Strategic Defense Command at U.S. Army Kwajalein Atoll. He has also managed a wide range of Environmental Assessments, from a fuel pipeline project for Little Rock Air Force Base to a FERC license surrender EA for the Davis Creek Hydroelectric Project near Arcata, California.

Before joining CH2M HILL, Mr. Linehan worked for the U.S. Department of Energy, Bonneville Power Administration (BPA). He worked in the environmental staff of the Office of Power Management for 2 years, where he was assistant project manager and principal author of the Intertie Development and Use Draft EIS. This EIS analyzed the purpose, need, and effects of upgrading the Northwest/Southwest high-voltage intertie system and of BPA's Intertie Access Policy for use of the Federal share of the Intertie. Mr. Linehan also served as a representative of BPA to the California-Oregon Transmission Project steering committee and presented BPA's role at community meetings in Oregon and California.

Mr. Linehan also worked in the power sales negotiation staff at BPA. In the Pacific Northwest, Mr. Linehan was involved in negotiations with Puget Sound Power and Light Company, C.P. National Company, and Oregon Trail Cooperative. He was lead staff person in negotiations for long-term power sales with the Cities of Santa Clara, Anaheim, Riverside, Vernon, and South Gate; with Shasta Dam Area Public Utility District; and with Modesto-Santa Clara-Redding (M-S-R) Public Agency. He also negotiated with Southern California Edison Company for transmission access to the Southern California municipalities. Mr. Linehan's responsibilities included interpretation of statutes and BPA policies, negotiation, technical review, and contract drafting.

International Experience

- Helped establish the Moscow project office of the Environmental Policy and Technology (EPT) project of the U.S. Agency for International Development (USAID). The EPT project, which is managed by CH2M HILL, is USAID's major environmental initiative in the states of the former Soviet Union. Mr. Linehan worked in Moscow to identify and hire Russian staff and subcontractors, develop work plans, evaluate proposed projects, and assess the need and suitability of project components.
- Consultant and staff researcher for the World Bank Development Research Department, working on a World Bank study of current agricultural policy in six African nations for Dr. Uma Lele. He also has experience in evaluating and implementing USAID-funded development projects in Africa as a consultant with Catholic Relief Services (CRS) in Senegal and Sierra Leone. His work with CRS required comprehensive field investigations (using French and Wolof language skills) of the economic, social, and health effects of rural development, health, and feeding projects.
- For two years, Mr. Linehan worked as a Peace Corps agricultural extension agent in Mauritania. He worked with the Ministry of Development programs and self-help projects in Arabic- and Wolof-speaking villages.

Professional Registration/Societies

American Institute of Certified Planners

Professional Publications

An Approach to Transmission Line Siting in the 1990s. Paper presented at the Northwest Public Power Association Engineering and Operations Conference. Coeur d'Alene, Idaho. May 1990.

White Paper on Implementing SB 497, paper presented to the Public Service Commission of the State of Nevada, July 1990, on the implementation of a new statute requiring utilities to consider environmental externalities in resource planning.

Electric and Magnetic Fields and Transmission Line Siting: What Should Planners Know?" Paper presented to the American Planning Association National Co With Kenneth R. Sims, U.S. Army Space and Strategic Defense Command, and Brian Burby, CH2M HILL.

NEPA Analysis at U.S. Army Kwajalein Atoll, Republic of the Marshall Islands. Presented at the National Association of Environmental Professionals 19th Annual Conference, New Orleans, Louisiana. June 15, 1994.

Linear Facilities Siting: Transmission Line Siting Strategies. Presented at Northwest Electric Light and Power Association Workshop on How to Site Generation and Transmission Facilities, Seattle, Washington. March 3, 1994.

Techniques for Successful Public Involvement. Presented at Northwest Electric Light and Power Association Facility Siting Workshop, Spokane, Washington. November 3, 1993.

How Transmission Line Alignments are Selected. Presented to the Washington State EMF Task Force Symposium, Seattle. September 10, 1991.

With Katherine S. Pierce, Bonneville Power Administration, Portland, Oregon; Nancy H. Weintraub, Bonneville Power Administration, Portland, Oregon; Judith Woodward, Judith Woodward Communications, Portland, Oregon. *Nepa Analysis Of Us-Canadian Power Transactions Under The Columbia River Treaty.* Presented at the National Association of Environmental Professionals 20th Annual Conference, Washington DC. June 15, 1994.

With Kenneth R. Sims, U.S. Army Space and Strategic Defense Command, and Brian Burby, CH2M HILL. *NEPA Analysis at U.S. Army Kwajalein Atoll, Republic of the Marshall Islands*. Presented at the National Association of Environmental Professionals 19th Annual Conference, New Orleans, Louisiana. June 15, 1994.

With Peter D. Mostow, Stoel Rives. *An Assessment Of Wind Project Siting Regimes*. Paper presented at Windpower 2001, American Wind Energy Association national conference, May, 2001.