

Dear Senators:

Testimony against HB 4126A scheduled for 3:00 p.m. February 25, 2014 in Hearings Room B

HB 4126A will result in the withdrawal of Initiative No. 3, the Renewable Energy Initiative. It will deny the thousands of Oregonians who have signed and will sign that initiative an opportunity to have their voice heard regarding the impacts of the Renewable Energy Standard. Initiative No. 3 would address many problems with the Renewable Energy Standard. This bill addresses only one of those problems and is the result of a meeting of a group of energy power players and co-chaired by Rep. Greg Smith and Margie Hoffman representing the governor. It brokered a mini-fix to save one of the governor's pet programs.

Oregon taxpayers will continue to be required to provide incentives to wind and solar developers, most of whom are selling their energy out of state. For instance, the entire production of Shepherd Flatts wind farm is contracted to go to the state of California for 20 years in spite of the huge financial incentives Oregon taxpayers have provided to this development.

Oregon taxpayers will continue to be required to support new wind and solar developments even though 80% of the energy being produced in the state is currently coming from "renewable sources" including hydro, wind, and solar. The figures you normally hear about the amount of renewable energy is taken from what is USED, not what is PRODUCED in the state. (Attached is the US Department of Energy from 2005 which is the last year I had instant access to. Note the 69% figure for hydro-power produced in Oregon)

#### Problems with the Renewable Energy Standard:

1. It provides no credit for wind or solar energy produced in this state, but sold to other states (over  $\frac{3}{4}$  of the total).
2. It provides no credit for most of the hydro-power produced in the state due to a political decision to only count hydro—power put into service after 1996.
3. By statute, wind and solar developments proposed in Oregon must be approved absent any determination that there is a need for the energy.
4. No determination can be made regarding whether or not the costs are greater than the benefits of the additional energy to be produced.
5. Developers are not required to determine the CO2 savings that are actually occurring due to the development. Cost savings are based upon what would be saved if the development were replacing "dirty

coal generated power” and includes no other impacts such as the pollution created by the necessary back up energy source.

6. There is no requirement in Oregon statutes to track cumulative impacts of the developments. There is no central tracking of direct jobs created, wildlife killed and displaced by the developments, citizen complaints, etc. The Department of Energy was required to report to the legislature in 2011 the jobs created by the renewable energy developments in the state. That report stated that they had no method of obtaining an accurate accounting of jobs. They did provide information on the permanent jobs created at 12 existing and planned wind farm developments. Using their maximum figures, a total of 270 permanent full time jobs would be created. The Pew Charitable Trust released a report in June 2009 and they determined that there were 1,083 total jobs in Oregon’s clean energy sector. These are the only figures I could find that attempted to focus directly on Oregon’s renewable sector jobs. Most include all green economy jobs which can be anything from iron workers to teachers. The industry inflates the jobs by guessing at and including down stream impacts of the hired employees. (Attachments page 7 and 8 of the 2011 RPS Assessment from the Oregon Department of Energy reflecting these figures)

The US Government Accountability Office report counted 82 different programs spread across nine agencies that provided tax breaks, loan guarantees, or other economic assistance to the wind industry. All these subsidies for wind power make one question  
Who pays the costs and who gains the benefits.

Wind and solar developments do not need bills intended to continue justifying the use of Oregon tax dollars and incentives to increase developments in this state.

Information obtained from the US Energy Information Administration show the following for 2010: Wind received 42% of all federal subsidies for electricity production and produced 2.3% of electricity generated. Natural gas and oil (almost all natural gas) produced 25% and received 3.6% of the subsidies.

If this body wants to require Oregon citizens to pay for wind and solar developments for energy being sent out of state and used to replace our

current hydro-power, the only ethical thing to do is to provide a bill that states that decision is being made. It is not to hide the justification for our continued financial support for wind and solar developments in a Renewable Energy Standard and then manipulate the requirements of that bill to see that continued funding of these developments can be justified.

The reason this bill exists represents all that is wrong with politicians approving bills that justify the distribution of taxpayer funds to a favored industry in spite of the failure to provide the outcomes promised in terms of employment, energy production, reduced pollution, and promises that it will be good for the environment.

This bill is intended to circumvent the opportunity for the citizens negatively impacted by the Renewable Energy Standard to have a say in what is counted toward meeting the standard. The question that needs to be answered is should Oregon taxpayers be required to financially support the development of wind and solar developments in this state, suffer the negative consequences of those developments, and have the energy leave the state when 80% of the energy produced in Oregon is already renewable by any standard other than a political one.

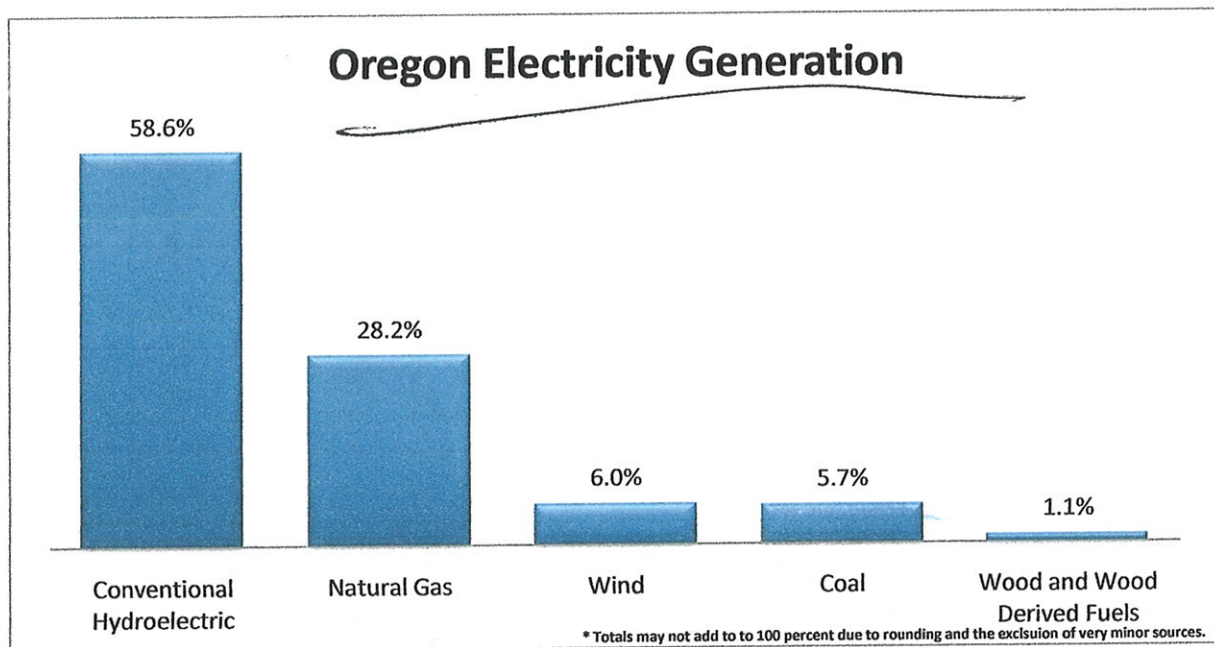
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# Oregon Energy Facts

Oregon – Select Economic and Energy Data <sup>†</sup>		State Rank
Real Gross Domestic Product, per capita	\$38,801	16th highest
Unemployment	10.5	14th highest
Gasoline Price, per gallon	\$2.89	12th highest
Electricity Price, per kWh	7.63¢	16th lowest

Oregon has relatively affordable electricity prices (23 percent below the national average) because hydroelectric power provides nearly 60 percent of Oregon’s electricity. Only Washington produces more hydroelectric power than Oregon. About 30 percent of the state’s electricity is produced from natural gas. Wind and wood combined provide another 7 percent of electricity supply.



Oregon lacks fossil fuel resources. Most of Oregon’s hydroelectric electricity is generated on the Columbia River, on which the state’s four largest electricity generation facilities are located. These sites have allowed the state to utilize its major energy resource, helping keep electricity prices relatively low. Oregon also has renewable resource potential in wind and geothermal energy.

## Regulatory Impediments to Affordable Energy

Although affordable energy is a vital component of a healthy economy, regulations frequently increase energy costs. Regulations imposed in the name of reducing carbon dioxide and greenhouse gas emissions are especially costly. Carbon dioxide is a natural byproduct of the combustion of all carbon-containing fuels, such as natural gas, petroleum, coal, wood, and other organic materials. Today, there is no cost-effective way to capture the carbon dioxide output of the combustion of these fuels, so any regulations that limit carbon dioxide emissions will either limit the use of natural gas, petroleum, and coal, or dramatically increase their prices.

Below are some facts about Oregon's regulatory environment that are likely to affect the cost of energy or the cost of using energy. Oregon has passed a large number of costly regulations.

- **Oregon imposes** a goal of reducing its greenhouse gas emissions to 10 percent below 1990 levels by 2020 and to 75 percent below 1990 levels by 2050.<sup>1</sup> The bill, however, did not include the regulatory authorities necessary to achieve these goals. Instead, it established a Global Warming Commission responsible for recommending ways to meet the goals.
- **Oregon is a member** of the Western Climate Initiative (WCI), a regional agreement among some American governors and Canadian premiers to target greenhouse gas reductions. The central component of this agreement is the eventual enactment of a cap-and-trade scheme to reduce greenhouse gas emissions 15 percent below 2005 levels by 2020.
  - **Oregon has a de facto ban** on new coal-fired power plants. Senate Bill 101, passed in 2009, limits power plant emissions to 1,100 pounds of carbon dioxide per megawatt of generated electricity.<sup>2</sup> Because the law does not allow for the use of offsets to meet this standard, this regulation is a de facto ban on inexpensive coal power plants. In addition, House Bill 3283, enacted in 1997, requires new natural gas power plants to reduce greenhouse gas emissions by 17 percent, though offsets can be used to meet that standard.<sup>3</sup> The law also instituted other emissions limits on non-baseload and non-generating energy facilities.
- **Oregon requires** utilities to generate from renewable sources a certain percentage of the electricity that they sell. The state's renewable portfolio standard requires: that large utilities (more than 3 percent of state load) generate 25 percent of retail electricity sales from newer renewables (those placed in service after January 1, 1995); that smaller utilities (over 1.5 percent of state load, but less than 3 percent of state load) meet a 10 percent RPS by 2025; and that the smallest utilities (less than 1.5 percent of state load) meet a 5 percent RPS by 2025.<sup>4</sup>
- **Oregon requires** gasoline to be mixed with renewable fuels. Senate Bill 1079, passed in 2008, mandates that all gasoline must contain 10 percent ethanol after in-state ethanol production passes 40 million gallons per year.<sup>5</sup> There is an analogous biodiesel quota for diesel.

- House Bill 2186, passed in 2009, allows the Oregon Environmental Quality Commission (EQC) to adopt rules for the reduction of greenhouse gas emissions from transportation fuels.<sup>6</sup> This may include a low-carbon fuel standard, among other programs.

- **Oregon imposes** automobile fuel economy standards similar to California's, which attempts to regulate greenhouse gas emissions from new vehicles. In 2006, the Oregon Environmental Quality Commission (EQC) instituted permanent rules to adopt California's vehicle emissions standards.<sup>7</sup>
- **Oregon requires** new residential and commercial buildings to meet energy efficiency standards. One-to-two-family residential buildings must meet the 2008 Oregon Residential Specialty Code, which is based off the 2006 International Residential Code. Commercial buildings must meet the 2007 Oregon Structural Specialty Code, which is based off the 2006 International Building Code.<sup>8</sup> The International Residential and Building Codes, both developed by the International Code Council, are model codes that

buildings must reduce energy use by 20 percent compared to baseline energy use in 2000.<sup>9</sup>

building code energy conservation provisions by at least 20 percent, while existing buildings must reduce energy use by 20 percent compared to baseline energy use in 2000.<sup>9</sup>

- **Oregon imposes** state-based appliance efficiency standards for automatic commercial icemakers, bottle-type water dispensers, commercial hot food holding cabinets, commercial refrigerators and freezers, compact audio produces, DVD players and recorders, and portable electric spas.<sup>10</sup>
- **Oregon allows** utilities to "decouple" revenue from the actual sale of electricity and natural gas. Such decoupling allows utilities to increase their revenue by selling less electricity and natural gas.

Data Sources: Real GDP per capita 2008: Bureau of Economic Analysis, *News Release: GDP by State* (June 2, 2009), [http://www.bea.gov/newsreleases/regional/gdp\\_state/gsp\\_newsrelease.htm](http://www.bea.gov/newsreleases/regional/gdp_state/gsp_newsrelease.htm); Unemployment: Bureau of Labor Statistics, *Regional and State Employment and Unemployment—February 2010* (Mar. 10, 2010); Gasoline Prices: American Automobile Association, *AAA Daily Fuel Gauge Report* (Mar. 30, 2010); Electricity Prices: Energy Information Administration, *Electric Power Monthly*, Table 5.6.B., Average Retail Price of Electricity, (March 15, 2010), [http://www.eia.doe.gov/cneaf/electricity/epm/table5\\_6\\_b.html](http://www.eia.doe.gov/cneaf/electricity/epm/table5_6_b.html); Electricity Generation Data: Energy Information Administration, *Electricity Generation 2009*, [http://www.eia.doe.gov/cneaf/electricity/epa/generation\\_state\\_mon.xls](http://www.eia.doe.gov/cneaf/electricity/epa/generation_state_mon.xls).  
 H.B. 3543 (Or. 2007), <http://www.leg.state.or.us/07reg/measpdf/hb3500.dir/hb3543.en.pdf>.  
 H.B. 101 (Or. 2009), <http://www.leg.state.or.us/09reg/measpdf/sb0100.dir/sb0101.en.pdf>.  
 H.B. 3283 (Or. 1997), <http://www.leg.state.or.us/97reg/measures/hb3200.dir/hb3283.a.html>.  
 Lawrence Berkeley National Laboratory, *Renewables Portfolio Standards in the United States*, <http://eetd.lbl.gov/ea/ems/reports/lbnl-154e.pdf>.  
 H.B. 1079 (Or. 2008), <http://www.leg.state.or.us/08ss1/measures/sb1000.dir/sb1079.en.html>.  
 H.B. 2186 (Or. 2009), <http://www.leg.state.or.us/09reg/measpdf/hb2100.dir/hb2186.a.pdf>.  
 Oregon Department of Environmental Quality, *Oregon's Low Carbon Fuel Standard*, <http://www.deq.state.or.us/aq/committees/lowcarbon.htm> (last visited Mar. 8, 2010).  
 Building Codes Assistance Program, Code Status: Oregon, <http://bcap-energy.org/node/90>.

noted that the temporary positions do not necessarily represent net new jobs. Depending on the timing of a project it is possible that construction workers on one project could also have been employed on other wind projects.

**Table 1. Commercial Wind Energy Job Creation**

Facility Name	County	Year Generation Commenced	Capacity (MW)	Permanent Jobs	Construction Jobs
Biglow Canyon	Sherman	2010	450	15-20	250
Klondike III	Sherman	2008	300	15-20	100-120
Stateline	Umatilla	2001	222	25	350

Source: Oregon Department of Energy

Indications suggest growth in the wind industry is going to continue. The 19 wind farms that are in various stages of planning and development have the potential to add over 4,300 megawatts of capacity to Oregon. Preliminary records filed by the 10 facilities subject to EFSC jurisdiction indicate a potential increase of 182-221 permanent positions and approximately 2,600 constructions positions (See Table 2).

**Table 2. Potential Growth in Wind Energy Employment**

Facility Name	County	Year Generation Commenced	Capacity (MW)	Permanent Jobs	Construction Jobs
Antelope Ridge	Union	Construction	300	8-15	200
Baseline	Gilliam	Planning	500	12-15	250
Golden Hills	Sherman	Approved	400	10-15	175
Helix Energy	Umatilla	Approved	102	6-10	120
Leaning Juniper	Gilliam	Construction	277	30	335
Montague	Gilliam	Approved	404	30	475
Rock Creek	Gilliam	Planning	550	20-40	250
Saddle Butte	Gilliam/Morrow	Planning	564	25	250
Shepherds Flat	Gilliam/Morrow	Construction	845	25	250

Source: Oregon Department of Energy

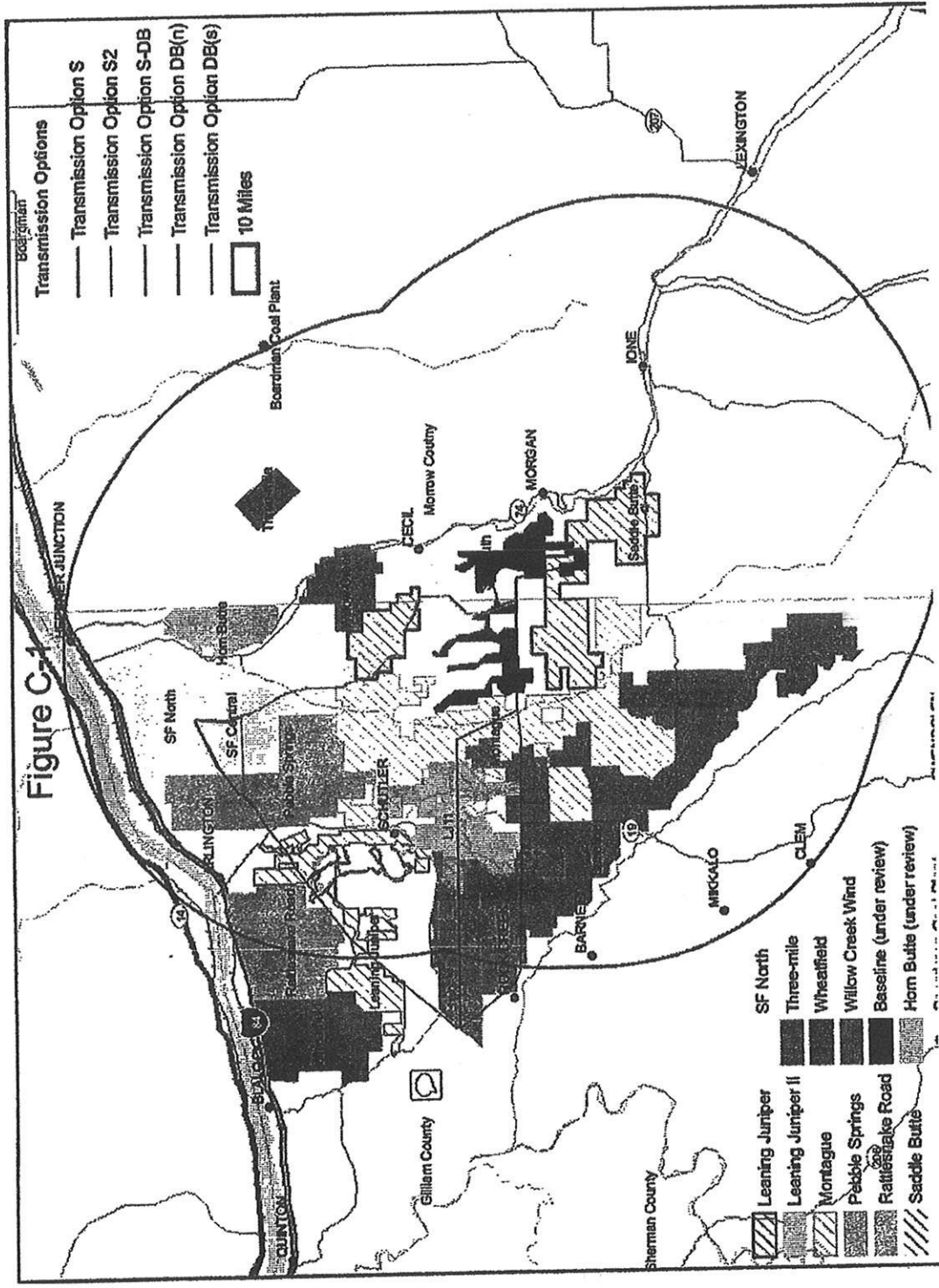
Information provided to EFSC represents estimates provided by the project developer and are not verified by the Department. These estimates are for jobs, not full-time equivalent (FTE).

**Case Study: Biglow Canyon**

Biglow Canyon, located in northeast Oregon in Sherman County, is one of Oregon's largest wind farms. The project, owned by Portland General Electric (PGE) consists of 217 wind turbines and has a peak generating capacity of approximately 450 megawatts. Biglow Canyon was constructed in three separate phases with the first phase beginning construction in April 2007 and the third and final phase beginning operation in June 2010. PGE estimates the actual generation from Biglow Canyon will be enough to

Saddle Butte

# Site Context



Source: Application for Site Certificate, Figure C-1

SBW DPO Council Review  
September 27, 2013





Senator:

After 9/11, the citizens of this country came to the rude awakening that we are not immune from attack on our own soil. I want to ask about an issue that has been identified by the Department of Defense and the Department of Navy as posing a significant threat to our National Security.

When the Federal Aviation Administration objected to the siting of Shepperd Flats wind farm, you and Rep. Ron Wyden went to Washington and lobbied for it's approval. The FAA then backed off their concerns which included the impacts on the 10 mile wide flight training corridor utilized by Navy pilots flying out of the Boardman airbase, and the impacts on the Fossil Radar station. The FFA withdrew their objection and the Department of Defense initiated efforts to address the impacts on the Fossil Radar station since the radar reads the moving turbines as airplanes. Their efforts failed, and the wind development reduced the width of the naval training corridor to 3 miles wide.

Now, the same developer is planning to extend Shepherd Flats by the addition of the Saddle Butte Wind development. This wind farm will basically eliminate the ability of the Navy to use this area for pilot training and according to the Department of Defense poses a "significant threat to the national security" due to the cumulative impacts of the existing turbines in combination with proposed addition.

The Department of Energy and the Energy Facility Siting Counsel are refusing to allow documents regarding the impacts on the Radar station based upon a procedural objection from the developers. This radar station provides for security from air attack for the west coast from Canada through Northern California. I want to know if you will join the Department of Defense and the US Navy in their fight to provide a safe training location for our military pilots and the protection from wind turbine interference with the Fossil Radar station. What is your priority, National Defense or Wind Farm Development?

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December 20, 2013

J. Kevin Shuba  
Hearing Officer  
Willamette Professional Center  
1011 Commercial Street NE  
P.O. Box 749  
Salem, OR 97308-0749

**Re: *In the Matter of the Application for a Site Certificate for the Saddle Butte Wind Park Facility Before the Energy Facility Siting Council for the State of Oregon***

Dear Mr. Shuba:

The Department of Defense and Department of the Navy (DoD/DoN) respectfully submit the enclosed written declarations of testimony for your consideration in the contested case hearing concerning the proposed Saddle Butte Wind Park Facility. DoD/DoN specifically request your incorporation and consideration of all letters, discussions and submissions, including the legal brief, with appendices A through F, submitted on November 15, 2013 during your deliberations. Attached to this letter is the DoD notification of appearance of counsel letter dated December 18, 2013, two reports supporting the discussions on radar interference and windmill farms effect on military readiness and the following four declarations:

1. Declaration of Captain Brett K. Easler, U.S. Navy
2. Declaration of Captain Michael K. Nortier, U.S. Navy
3. Declaration of Captain Darryl Walker, U.S. Navy
4. Declaration of Mr. John J. Zentner, NORAD

These declarations and reports, along with the brief submitted on November 15, 2013, demonstrate that the applicant has failed to establish by a preponderance of the evidence that it can construct the proposed wind farm in compliance with Oregon Administrative Rule 345-024-0010 Public Health and Safety Standards for Wind Energy Facilities and Oregon Administrative Rule 345-024-0015, Cumulative Effects Standard for Wind Energy Facilities.

OAR 345-024-0010 (1) requires the Siting Council to find that the applicant “[c]an design, construct and operate the facility to exclude members of the public from close proximity to the turbine blades and electrical equipment.” The applicant proposes to construct wind turbines within the confines of Military Training Routes (MTR) starting at 200 feet above ground level for use by military aircraft using both instrument flight rules and visual flight rules. The Oregon Department of Energy has indicated that air navigation is an important factor in determining whether an applicant can exclude members of the public from the close proximity to the turbine blades.<sup>1</sup> As detailed in the U.S. Navy’s petition for standing submitted on October 21,

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<sup>1</sup> Brush Canyon Wind Power Facility, Draft Proposed Order (November 18, 2013), pg. 303. The Oregon Department of Energy providing the following in relation to air navigation:

*To further exclude members of the public from close proximity to the turbine blades and to ensure the facility would be designed, constructed and operated in a manner not posing an air navigation*

2013 relating to the navigation safety concerns for low tactical training in the military training routes, members of the military are members of the public for purposes of Oregon Administrative Rule 345-024-0010.<sup>2</sup> The submitted declarations support the contention that siting wind turbines in the southeastern portion of the proposed facility will greatly increase safety of flight risks (i.e., collisions between military aircraft and the newly sited wind turbines).

Moreover, the requirement to provide notification of proposed construction to the Federal Aviation Administration and the Oregon Department of Aviation, which comprise condition O.3 in the draft proposed order, is wholly ineffective in excluding members of the public from the close proximity to the turbines because those agencies have no authority to prevent construction. As a consequence, the applicant cannot demonstrate that it is able to design, construct, and operate the southeastern portion of the proposed facility in a manner that excludes members of the public from close proximity to the turbine blades and electrical equipment.

OAR 345-024-0015 requires the Siting Council to find that the applicant “can design and construct the facility to reduce cumulative adverse environmental effects in the vicinity by practicable measures . . .” Mr. Zentner’s declaration shows that the proposed turbines would disrupt the electromagnetic spectrum, which is part of the natural environment, and, as a consequence would interfere with military radar that uses the electromagnetic spectrum to function. There are measures that will mitigate the impacts of the turbines on the electromagnetic spectrum and military radar.

Therefore, as discussed in the brief submitted on November 15, 2013, DoD/DoN requests the Siting Council impose a condition requiring the applicant to enter into an enforceable agreement with DoD/DoN that satisfactorily limits the cumulative adverse environmental impacts of the proposed turbines on the electromagnetic spectrum and military radar and places turbines in locations that ensure the safety of military aircrews flying on the identified MTRs.

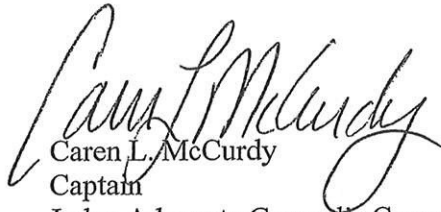
DoD/DoN would like to preserve objections to arguments presented in Applicant’s November 22, 2013 reply brief to the DoD/DoN brief of November 15, 2013 against consideration of military safety and the interference of wind farms with the military readiness mission and the environmental effects to the electromagnetic spectrum before this contested case. Applicant’s arguments raised new legal theories and issues that were not raised previously in the contested case and therefore should be determined outside the scope of the proceedings. If the Hearing Officer chooses to entertain those arguments, DoD/DoN requests an opportunity to submit written rebuttal. DoD/DoN is prepared to address any other matters or arguments raised by the applicant at the discretion of the Hearing Officer.

Sincerely,

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hazard as determined by the FAA and the Department of the Aviation the Department recommends the Council adopt the following condition [related to notification procedures.] (emphasis added).

<sup>2</sup> Oregon Administrative Rule 345-001-0010, Department of Energy, Energy Facility Siting Council, General Provisions, Definitions, cites Oregon Revised Statute § 469.300 for the definition of “Person”. “Person means an individual, partnership, joint venture, private or public corporation, association, firm, public service company, political subdivision, municipal corporation, government agency, peoples utility district, or any other entity, public or private, however organized.” Oregon Revised Statute § 469.300.



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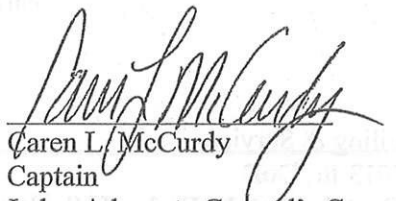
Enclosures:

- (1) Certificates of Filing & Service
- (2) December 18, 2013 ltr, DoD
- (3) Declaration of Captain Brett K. Easler, U.S. Navy
- (4) Declaration of Captain Michael K. Nortier, U.S. Navy
- (5) Declaration of Captain Darryl Walker, U.S. Navy
- (6) Declaration of Mr. John J. Zentner, NORAD
- (7) Summary of Test Results for the Interagency Field Test & Evaluation of Wind Turbine – Radar Interference Mitigation Technologies Report of December 2013
- (8) Report to the Congressional Defense Committees – The Effect of Windmill Farms on Military Readiness of 2006

**CERTIFICATE OF FILING**

I certify that on December 20, 2013, I filed the original and one copy of DoD/DoN LETTER SUBMISSION OF WRITTEN DIRECT TESTIMONY and the eight (8) attachments by first-class United States Postal Service mail and by e-mail on:

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**ENCLOSURE (1)**

BEFORE THE ENERGY FACILITY SITING COUNCIL  
FOR THE STATE OF OREGON

In the Matter of the Application for Site	)	
	)	<b>Declaration of Brett K. Easler</b>
	)	<b>in support of Department of Defense/</b>
	)	<b>Department of Navy</b>
<b>Certificate for the Saddle Butte Wind Park</b>	)	

**DECLARATION OF BRETT K. EASLER, CAPT, U.S. NAVY**

I, BRETT K. EASLER, CAPT U.S. Navy, do hereby declare as follows:

**I. BACKGROUND**

1. I am over 18 years of age. I am competent to testify about the matters set forth herein and submit the testimony below based upon personal knowledge and information.
  
2. I am an officer in the United States Navy. I hold the rank of Captain. I work for the Office of the Chief of Naval Operations and my title is Director, Naval Airspace and Air Traffic Control Standards and Evaluation Agency (NAATSEA). Director, NAATSEA has overall authority for satisfying the Department of the Navy (DON) airspace management and air traffic control service requirements and facilitates the Naval Aviation Enterprise vision to efficiently deliver the right force, with the right readiness, at the right time; as levied by the Joint Chiefs of Staff and unified and specified commands, today and in the future.
  
3. I graduated with a Bachelors of Science in Professional Aeronautics from Embry Riddle Aeronautical University in 2002. Additionally, I graduated from Navy Air Traffic Control 'A' School in 1979 and I have over 35 years of Naval Service in the Air Traffic Control and Airspace field. I was a fully qualified air traffic controller and airspace manager at every duty station assigned. I was the Command Airspace Liaison Officer at multiple air traffic control facilities and specialized in airspace management when assigned to Fleet Area Control and Surveillance Facility located at North Island, CA where we were designated as a Regional Airspace Coordinator. When assigned to Chief of Naval Air Training at Corpus Christi, TX, I was the staff Air Traffic Control Readiness Officer for all air traffic control and airspace facilities supporting naval aviation training commands. As Officer in Charge of the Air Traffic Control

**ENCLOSURE (3)**

Schools located at Naval Air Technical Training Center, Pensacola, FL, I was responsible for the training of all Navy and Marine Corps air traffic controllers in all aspects of airspace and air traffic control. Following a tour as the Navy's airspace and Air Traffic Control Liaison to Federal Aviation Administration (FAA) National Headquarters in Washington, D.C., I am now serving on the staff of the Chief of Naval Operations as Director, NAATSEA, since 2009, where I am responsible for the duties addressed in paragraph I.2 above.

## **II. MILITARY TRAINING ROUTES**

1. The proposed Saddle Butte wind energy project is within the confines of four published Military Training Routes (MTR) (IR-342; IR-344; IR-346; VR-1353) which were established following implementation of the Federal Aviation Act of 1958. There are two types of MTRs; Instrument Routes (IR) and Visual Routes (VR) both of which are developed by the Department of Defense (DOD) in coordination with the FAA and either approved by the DOD (VR) or the FAA (IR). IRs are flown utilizing instrumented flight rules (which includes the authority to fly in the clouds) while VRs use visual flight rules. MTRs are developed in order to notify non-participating civil and DOD pilots of the location of where DOD flight operations below 10,000 feet mean sea level in excess of 250 knots indicated air speed can be found throughout the United States. Each MTR has a defined center line, route width, and altitude (segment "floor" and "ceiling") plus special operating procedures established by the DOD. Flights within MTRs operate under a waiver from the normal speed limits established at 14 C.F.R §91.117 by the FAA. See, FAA JO 7610.4P, Special Operations, Appendix 18, August 25, 2011. The DOD is required to publish all MTRs in the Flight Information Publication AP/1B and AP/3; while the FAA is required to develop appropriate aeronautical charts depicting MTRs. It is the combination of these actions by the FAA and DOD that allow military aircraft to fly at low altitudes and at a high rate of speed within the confines of a designated MTR.

## **III. THE OBSTACLE EVALUATION / AIRPORT AIRSPACE ANALYSIS SYSTEM**

1. The FAA has the authority to regulate the safe and efficient use of the navigable airspace and is authorized to issue air traffic rules and regulations to govern flight, navigation, protection,

and identification of aircraft for the protection of persons and property on the ground, and for the efficient use of the navigable airspace. (See, 49 USC §40103(a) and (b).)

2. 14 CFR Part 77 establishes the requirement to provide notice to the FAA of certain proposed construction, or the alteration of existing structures, establishes the standards used to determine obstructions to air navigation, and the process for aeronautical studies to determine the effect on the safe and efficient use of navigable airspace. "Notice" is required for any construction, alteration, establishment, or expansion of a structure or sanitary landfill, when such notice will promote safety in air commerce, and the efficient use and preservation of the navigable airspace and airport traffic capacity at public use airports.<sup>1</sup> This notice is provided through submission to the FAA of a completed FAA Form 7460-1 (Notice of Proposed Construction or Alteration). The FAA uses the Obstacle Evaluation / Airport Airspace Analysis (OE/AAA) program, defined in FAA Order JO 7400.2J, to manage and evaluate the process associated with submission of notice.

3. The FAA conducts aeronautical studies to determine the impact of a proposed structure on aeronautical operations, procedures, and the safety of flight. The DON is alerted by the FAA to "aeronautical studies" under the OE/AAA program if the project site is near a military base, special use airspace, or the confines of an MTR. While FAA must consider all comments received, including the DON's, it makes its own independent determinations.

4. The requirement for submission of a notice to the FAA has many variables associated with height and distance from the nearest point of a runway; however, as a standard any construction or alteration that is more than 200 feet AGL requires notice. When evaluating notices the FAA must consider many variables in determining if a structure is an obstruction, however, as a standard an object would be considered an obstruction to air navigation if it is of a height of 499 feet above ground level (AGL). Objects that are considered obstructions are presumed hazards to air navigation unless further aeronautical study concludes that the object is not a hazard.

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<sup>1</sup>The special rules regarding sanitary landfills and electromagnetic interference are not discussed here.



5. In conducting an aeronautical study, the FAA evaluates many factors including aircraft operating under visual flight rules, aircraft operations under instrument flight rules, impacts to public use airports, minimum obstacle clearance altitudes, terminal instrument approach procedures, and physical or electromagnetic effects on air navigation, communications, and other surveillance (radar) systems. Based on the aeronautical study, the FAA will issue a determination stating whether the object would be a hazard to air navigation. If FAA's aeronautical study concludes that the proposed structure will exceed an obstruction standard identified in 14 CFR Part 77 and is determined to have a substantial aeronautical impact, it will generally issue a Determination of Hazard to Air Navigation. On the other hand, if the structure triggers neither the "height standard" nor the "airport interference" standard identified in 14 CFR Part 77, FAA will issue a "Determination of No Hazard to Air Navigation."

6. A "Determination of No Hazard to Air Navigation" concerns only the effect of the structure on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of compliance with any other law, ordinance or regulation of any federal, state or local government body. A "Determination of No Hazard to Air Navigation" expires 18 months after the effective date of the determination; however, a "Determination of Hazard to Air Navigation" has no expiration date.

7. FAA's authority under 49 U.S.C. §44718 and 14 CFR Part 77 is limited to conducting a study considering factors relevant to the safe and efficient use of navigable airspace and air navigation facilities and issuing a report disclosing the extent of the adverse impacts thereon. However, these determinations by FAA may be easily misunderstood. When the FAA does issue a "Determination of Hazard to Air Navigation" for a proposed structure, that determination does not prevent the construction or erection of any structure, as FAA lacks land use regulatory authority. "Determinations of Hazard" by the FAA are influential, however, and are often adopted by other authorities with land use authority in their decision-making processes. Likewise, the issuance of a Determination of No Hazard by FAA is not tantamount approval of the project by FAA or any other federal agency; it merely means that the structure would not present a problem within the narrowly defined airspace that the standards are designed to protect.

#### **IV. RELATIONSHIP BETWEEN MILITARY TRAINING ROUTES & THE OBSTACLE EVALUATION /AIRPORT AIRSPACE ANALYSIS SYSTEM**

1. As described above, the FAA and DOD have processes established to evaluate notices of proposed construction. The FAA may, in fact, determine a structure to be an "obstruction" and then may also determine it to be a "hazard to air navigation." In the case of Saddle Butte, the fact that a proposed structure may lie within the confines of an MTR, does not (in and of itself) meet the standards for determining a hazard to air navigation, as stated in FAA Order JO 7400.2J, February 9, 2012. In recognition of the military's requirement to conduct low altitude training, however, FAA disseminates 14 CFR Part 77 notices and aeronautical study information to military representatives for information purposes.

I hereby declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief.

Executed on the 5<sup>th</sup> day of December, 2013 in Washington, DC



By: Brett K. Easler,  
Captain, U.S. Navy

BEFORE THE ENERGY FACILITY SITING COUNCIL  
FOR THE STATE OF OREGON

In the Matter of the Application for Site	)	
	)	<b>Declaration of</b>
	)	<b>CAPTAIN Michael Nortier</b>
	)	<b>in support of Department of Defense/</b>
	)	<b>Department of Navy</b>
Certificate for the Saddle Butte Wind Park	)	

I, CAPTAIN Michael Nortier, United States Navy, Commanding Officer, Naval Air Station Whidbey Island, do hereby declare as follows:

**I. BACKGROUND**

1. I am over 18 years of age. I am competent to testify about the matters set forth herein and submit the testimony below based upon personal knowledge and professional experience.
2. In April 1990, I graduated from Jacksonville University with a Bachelor's degree in Mathematics and was commissioned as a Naval Officer through the Naval Reserve Officer Training Corps (ROTC). I reported to Pensacola, Florida in May of 1990 for initial flight training and was designated a Naval Aviator in December 1991.
3. Upon completion of SH-2F Fleet Replacement Pilot training, I was assigned to Helicopter Anti-Submarine Squadron, Light 32 (HSL 32), at Naval Air Station Norfolk, Virginia, where I served from December 1992 until the squadron's disestablishment in January of 1994. During this tour, I deployed as the Operations Officer of a squadron detachment embarked on the USS YORKTOWN (CG 48) in support of Counter Narcotics operations.

4. I then reported to Helicopter Anti-Submarine Squadron, Light 40 (HSL 40) for transition to the SH-60B aircraft. In September of 1994, I reported to Helicopter Anti-Submarine Squadron, Light (HSL 44), homeported at Naval Station Mayport, Florida. I served as the Line Division Officer and deployed as Operations Officer of a squadron detachment embarked in USS HUE CITY (CG 66) in support of Operations Southern Watch, Deny Flight and Sharp Guard, and as the Maintenance Officer of a squadron detachment embarked in USS HALYBURTON (FFG 40) in support of Operation Southern Watch. Following my tour with HSL 44, I returned to Pensacola as a flight instructor and served as the Training Wing Five TH-57 Naval Aviation Training and Operations Program model manager.
5. In April 2001, I reported to Helicopter Anti-Submarine Squadron, Light 51 (HSL 51) in Atsugi, Japan where I served as the squadron Operations Officer and Officer in Charge of squadron detachments embarked in USS VANDEGRIFT (FFG-48) and USS CHANCELLORSVILLE (CG 62) in support of Operation Enduring Freedom.
6. In April 2004, I reported to the United States Strategic Command J-3 Current Operations directorate in Omaha, Nebraska where I served as the Chief of the Joint Readiness Reporting branch.
7. In 2005, I was selected as the Commanding Officer for Helicopter Maritime Strike Squadron 71 (HSM-71) in San Diego California. I transitioned to the MH-60R and led the establishment of the squadron, accepting the first fleet production aircraft into the Navy inventory and integrating them into Carrier Air Wing NINE and the USS JOHN C. STENNIS Strike Group.

8. In February 2009, I reported as the Air Operations Officer for Commander, Carrier Strike Group SEVEN embarked on USS RONALD REAGAN. In addition to my duties as Air Operations, I served as Strike Group SEVEN Safety Officer interacting with Carrier Air Wing FOURTEEN and USS RONALD REAGAN on all safety related matters, including aviation safety. During the assignment, I deployed to the Arabian Gulf in 2009 in support of Operation Enduring Freedom and again to the Western Pacific in 2011 to participate in Operation TOMODACHI as the first responders to the devastating tsunami that struck the northern coast of Japan.
9. In May of 2011, I reported to the Operations Directorate of U.S. Pacific Fleet where I deployed to the Office of Security Cooperation – Iraq as Director, Senior Advisors Group.
10. Over the course of my career, I have accumulated over 4300 flight hours in Naval aircraft.
11. Starting in Feb 2013, I began serving as the Commanding Officer for Naval Air Station Whidbey Island. In this role, I also have been designated by Commander, U.S. Pacific Fleet, as the Range Complex Coordinator for the Northwest Training Range Complex, an air, land, and sea range for those units training in the Pacific Northwest area. I provide support for base facilities and host commands that use the range for training, manage support functions to meet the requirements of military aircrews that use the range for training, and ensure compliance with the Range Airspace Installation Compatible Use Zone (RAICUZ) Program and the Encroachment Management Program. As the Range Complex Coordinator, I am also responsible for scheduling twelve military training routes (MTR) throughout Washington and Oregon including

the MTRs at issue in this contested case, IR-342, 344, 346 and VR-1353. In executing these responsibilities, my paramount consideration is the safety and welfare of the military personnel that train in the Northwest Training Range Complex.

## **II. SAFETY IMPACTS OF PROPOSED SADDLE BUTTE WIND PARK FACILITY**

1. The Saddle Butte Wind Park Facility poses a direct threat to public health and safety because the proposed locations for the turbine towers conflict with established Military Training Route (MTR) parameters leading into Restricted Airspace R-5701 and the Naval Weapon Systems Training Facility (NWSTF) Boardman. See Exhibit A attached to this declaration (map). This airspace, which consists of the four independent and overlapping MTRs, serves as the primary ingress corridor to the NWSTF Boardman air-to-ground impact area. Due to circumstances beyond my control, some turbines were previously built and currently have an adverse impact on MTR activities in this area. If the turbines in the southeastern section of the proposed Saddle Butte facility are allowed, the cumulative impact would effectively preclude safe low-level transit through this corridor. This directly threatens both military personnel conducting low-altitude tactical training below the height of the proposed turbines and innocent by-standers in the vicinity of the final approach into R-5701 and NWSTF Boardman.
2. MTRs are high-speed, low-altitude airspace corridors established by the Department of Defense in coordination with the Federal Aviation Administration (FAA)<sup>1</sup> that extend laterally 4 nautical miles either side of centerline and, generally, from 200 feet

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<sup>1</sup> There are two types of MTRs; Instrument Routes (IR) and Visual Routes (VR) both of which are developed by the Department of Defense (DOD) in coordination with the FAA and either approved by the DOD (VR) or the FAA (IR).

above ground level (AGL) to 1500 feet AGL. For more than 50 years, these corridors have been flown routinely by military aircraft to fulfill unique and demanding low-altitude training requirements. In the Saddle Butte area, MTR VR-1353, IR-342, 344 & 346 are utilized by various services for both instrument (IR) and visual (VR) flight rules at an elevation down to 200 feet above ground level (AGL).

3. As evident from the map in Exhibit A, the MTRs in this area are already severely impacted by existing wind turbines. The height of the proposed turbines (over 450 feet tall) and their location under the designated MTRs pose a direct safety of flight threat to military personnel who may fly as low as 200 feet as well as members of the public on the ground in the vicinity. New vertical obstructions would prevent the ability of flight crews to safely complete low-altitude training essential to military preparedness.
4. Per FAA regulations, pilots must maintain a minimum 500 feet separation distance between aircraft and man-made obstacles such as wind turbines. Local commands may require greater separation (i.e., up to 1 nautical mile) based on standard operating procedures. As a result of these constraints, effective low-level training can only be safely conducted in the southern four nautical miles of what is a normally eight-mile-wide MTR corridor.
5. The cumulative impact of the proposed Saddle Butte turbines, in particular the southeastern portion of the proposed project, would completely deny the remaining low-altitude portion of the MTR corridor, forcing aircraft to maneuver out of the practical low-altitude training environment to a higher elevation within the MTR. In effect, military aircraft flying at high speeds and at a low altitude would have to

temporarily increase their altitude to fly over the newly constructed turbines which increases risk and de-values the training practice.

6. Even in the absence of obstacles, low altitude tactical training is inherently risky, especially for novice aviators that are learning to fly under simulated combat conditions. Various factors such as the time of day, weather, sun angle, and other environmental conditions can influence visibility, which, in turn, may reduce pilot visual acquisition of and reaction time to ground obstacles. By siting wind turbines in the southeastern portion of the proposed facility in MTRs that are currently used for low altitude tactical training, the applicant would greatly increase the risk of a collision and the potential loss of military aircrews, aircraft, and innocent by-standers on the ground in the vicinity.
7. Although the current conditions in the MTR corridor are less than ideal, the military is able to continue to safely train. If the southeastern portion of the Saddle Butte Wind Park were approved and built, military aircrews would continue to train with increased safety of flight risks in the existing MTRs as designated on Exhibit A.

I hereby declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.


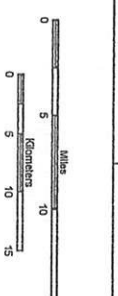
Executed on the 5th day of December, 2013 at Oak Harbor, Washington.

By:

  
\_\_\_\_\_  
MICHAEL NORTIER  
CAPTAIN, UNITED STATES NAVY





<b>PROJECT</b> NWSTF BOARDMAN MILITARY TRAINING ROUTES WIND TURBINE ANALYSIS UNCLASSIFIED	<b>LEGEND:</b> ▲ Built Turbine ○ Proposed Turbine ◻ Saddle Butte Turbines M MTR Towers — MTR Centerline ◻ Permit Applied for/Partially Built ◻ Built ◻ R-5701 Restricted Air Space ◻ Installation Property Boundary ◻ Navy Easement — MTR Lateral Limits	<b>DATE:</b> DEC 03, 2013 <b>DRAWN:</b> LMS	<b>SCALE:</b> 1:400,000 <b>SHEET NO. 1 OF 1</b>	<b>SOURCE:</b> OPNAV, NAVY, FAA  Chief of Naval Operations Navy and Environmental Readiness Division
	<b>NAVAL UNDERSEA WARFARE CENTER</b> DIVISION, NEWPORT (NUWC/DIVNPT) NEWPORT, RHODE ISLAND			

ELIWA LEE (H)

BEFORE THE ENERGY FACILITY SITING COUNCIL  
FOR THE STATE OF OREGON

In the Matter of the Application for Site	)	
	)	Declaration of
	)	CAPTAIN Darryl
	)	Walker, U.S. Navy in support
	)	of Department of Defense/
	)	Department of Navy
Certificate for the Saddle Butte Wind Park	)	

I, Captain Darryl Walker, Deputy Commander, Electronic Attack Wing (CVWP), U.S. Pacific Fleet, do hereby declare as follows:

**I. BACKGROUND**

1. I am over 18 years of age. I am competent to testify about the matters set forth herein and submit the testimony below based upon personal knowledge and professional experience developed over twenty-three years as a Naval Aviator.
2. In September 2012, I reported to CVWP as Deputy Commander, the position in which I am currently serving after being selected for Aviation Major Command. In January 2014, I will assume command of CVWP. I have a staff of 160 officers, enlisted and civilian personnel on the headquarters staff level that provide combat-ready Electronic Attack squadrons to support the Commander, Naval Air Forces and combatant commander tasking worldwide.
3. CVWP is a tenant command located at Naval Air Station Whidbey Island. The Electronic Attack Squadrons (VAQ) that report to CVWP conduct airborne electronic attack flying either the Grumman EA-6B "Prowler" or its replacement aircraft, the

ENCLOSURE (5)

Boeing EA-18G “Growler”, the fourth variant of the F/A-18 Super Hornet. CVWP is the organization primarily responsible to man, train, and equip all thirteen of the Navy’s EA-6B and EA-18G squadrons, comprising more than one hundred aircraft and three thousand uniformed personnel. The Airborne Electronic Attack (AEA) mission conducted by the crews of the EA-6B and the newer EA-18G is to deny, degrade, deceive or destroy an adversary’s capability to build and maintain situational awareness through the use of the radio frequency spectrum – usually radar. The EA-6B and EA-18G’s primary weapon system are powerful jamming pods, but the platforms also have the capability to fire the High-speed Anti-Radiation Missile (HARM). Today, the Navy provides the vast majority of the nation’s AEA capacity. By 2019, CVWP will be responsible for the only tactical AEA capability that remains in the U.S. inventory. The Navy’s EA-6B and EA-18G aircraft and crews are key warfighting enablers for the entire Joint force and are considered low-density, high-demand resources by the Department of Defense. These CVWP squadrons are the primary users of the military training routes (MTRs) around Naval Weapons Systems Facility Boardman (NWSTF Boardman) in Oregon.

4. CVWP provides the electronic warfare operational and tactical subject matter expertise to support those squadrons, including electronic warfare tactical and technical development leadership to help maintain, train and equip these squadrons to enable them to fight and win in any environment. CVWP also engages in a wide variety of activities ranging from maintenance, material and operational readiness support to everyday administrative functions of both the aircraft and personnel.

5. My prior experience in the United States Navy forms the foundation of my expertise to address the impacts on VAQ training in the MTRs surrounding NWSTF Boardman from the Saddle Butte Wind Park project before the Oregon Energy Facility Siting Council in this contested case.
6. I enlisted in the United States Air Force 1985, as an Air Traffic Controller and graduated from Embry Riddle Aeronautical University in 1989 with a Bachelor of Science Degree in Professional Aeronautics. After graduation in 1990, I received a commission into the United States Navy. With the completion of initial aviation training, I was designated a Naval Flight Officer in March 1992. Additionally, I graduated from the Naval War College with a Master of Arts Degree in National Security and Strategic Studies in 2001.
7. I completed training as Electronic counter measures officer (ECMO), who serves as the copilot with weapons systems duties such as jamming and sensor work for EA-6B aircraft in November 2007 and EA-18G in August 2012. Initially, I started my aviation career as a naval flight officer flying the S-3B Viking, which is a carrier-based jet aircraft, providing protection against hostile surface and subsurface combatants while also functioning as the Carrier Battle Groups' primary overhead/mission tanker. My operational experience began in June, 1993 when I reported to Sea Control Squadron (VS-32) and deployed aboard the USS AMERICA (CV-66). In 1996, I reported to Commander, Sea Control Wing Atlantic for duty as an S-3B Naval Air Training and Operating Procedures Standardization (NATOPS) Evaluator for the east coast, serving as NFO Standardization Officer for ten S-3B squadrons and as the Air to Ground Tactical Missile (AGM Maverick 65) weapons subject matter expert. In 2002, I

reported to VS-32 a second time as department head and deployed aboard the USS ENTERPRISE (CVN-65) in support of Operation Iraqi Freedom and Operation Enduring Freedom. Prior to joining the Electronic Attack community, I had flown 1600 hours and approximately 30 combat missions over Kosovo and Somalia in the S-3B Viking. In March 2005, I was selected for Aviation Commander Command as an EA-6B direct entry Executive Officer and was assigned to Electronic Attack Squadron ONE THREE NINE (VAQ-139). I deployed with VAQ-139 on board the USS RONALD REAGAN (CVN-76) in support of Operation Enduring Freedom. In March 2009, I assumed command of VAQ-139 and deployed with the squadron a second time in support of Operation Enduring Freedom. During my naval career so far I have flown more than approximately 890 hours in the EA-6B and 80 hours in the newer EA-18G and have accumulated 686 carrier arrested landings. Additionally, I have flown a total of more than 30 combat missions over, Afghanistan.

8. I have also held various shore assignments during my career in the Navy, some of which are noteworthy here. I was assigned to Commander, Naval Personnel Command from March 2004 to Sept 2006 as the SB-3 Viking Community Assignments Officer, to detail S-3B aviators to fleet and shore assignments. Subsequently, I served as the Deputy Director to Naval Personnel Command (PERS-43), Aviation Officer Distribution, with responsibility to support management of the 12,000 aviation officers community.
9. In October 2011, I was selected for Aviation Major Command. I reported to CVWP to serve as Deputy Commodore, my current position, in September 2012.

## II. Electronic Attack Squadrons

10. The Northrop-Grumman EA-6B Prowler and the Boeing EA-18G Growler, are considered all-weather, electronic attack aircraft with the primary role of suppressing enemy electronic capabilities through tactical jamming and the delivery of High-speed Anti-Radiation Missiles. There are thirteen operational Navy electronic attack squadrons at Whidbey Island that fly these aircraft. Each fleet squadron has approximately 190 personnel assigned and 10 crews that train on the MTRs. Additionally, the Fleet replacement squadron (FRS) is comprised of approximately 800 personnel with approximately 200 pilots that undergo a standard training syllabus. That syllabus includes a significant use of these MTRs. Ten units are Carrier Air Wing (CVW) VAQ Fleet squadrons flying EA-18G Growlers, which deploy on naval aircraft carriers and three are Expeditionary VAQ EA-6B squadrons, which forward-deploy to land-based sites. An additional squadron attached to CVWP, VAQ-141, is permanently forward deployed to the Western Pacific on board USS George Washington (CVN 73), homeported in Japan. Each squadron typically has five aircraft assigned and averages 25 officers and 165 enlisted personnel.
11. CVWP Fleet squadrons are supported by VAQ-129, the Fleet Replacement Squadron (FRS), responsible for the training of EA-6B and EA-18G pilots and electronic countermeasures officers to include U.S. Navy, U.S. Marine Corps, U.S. Air Force and Royal Australian Air Force aviators. The FRS serves as the initial training squadron for new naval aviators (pilots) and electronic countermeasure officers (naval flight officers) and as refresher training for pilots and electronic countermeasure officers who have

been assigned duties that have prevented them from maintaining their skills required for flying and operating electronic attack aircraft.

### **III. ELECTRONIC ATTACK WARFARE AND TRAINING REQUIREMENTS**

12. The Navy's primary mission is to man, train, equip, maintain and operate combat-ready naval forces capable of winning wars, deterring aggression and maintaining freedom of the seas. Training with complex operating and weapons systems of submarines, surface ships and aircraft in realistic combat conditions while employing potential threat scenarios is key to maintaining fleet combat readiness and survival in actual wartime conditions.
13. Section 5062 of Title 10 of the U.S Code mandates that the Chief of Naval Operations CNO organize train and equip all naval forces for combat. We accomplish this requirement through an arduous training cycle that ensures our forces achieve and maintain the highest possible readiness levels prior to deployment. This mandate is fulfilled by conducting training activities during pre-deployment training cycle. The Fleet Response Training Plan (FRTP) is a rigorous training protocol designed to ensure that service members develop and maintain the skills that they will need to safeguard themselves, their shipmates, and allies and to be effective in combat and in other real world operations prior to their deployment.
14. The FRTP is designed to ensure combat ready naval forces. It consists of four major phases: maintenance, initial or basic unit level training, integration training and sustainment phase. The specific skills that must be developed and maintained during the FRTP reflect those that have been identified for the execution of their duties during the range of mission areas they may be called upon to execute during deployments.

15. Aviators assigned to any of the squadrons undertake rigorous flight training requirements under the FRTP. The squadron aviators range in level of experience from new junior officers undergoing FRS training to more experienced senior pilots required to requalify in the EA-6B or EA-18G. Regardless of whether the crews are newly assigned aviators to the FRS or seasoned aviators returning from non-flying command positions, every crew must maintain low level training. There is a significant inherent safety risk in every flight within the MRT even under ideal weather conditions (clear visibility, high sun angle). Since, the level of experience in each crew varies reducing the lateral distance of the MTRs could increase the risk to aircrews that are less proficient in the low level tactical environment.
16. As part of the initial or basic unit level training, EA-6B and EA-18G missions require dynamic low altitude maneuvering and pilot proficiency in low altitude combat tactics. The low altitude training (LAT) maneuvers required to meet military operations and readiness are called Low Altitude Tactical Training (LATT) and Surface to Air Counter-Tactics Training (SACT). NWSTF Boardman, Oregon is the only location on the west coast where EA-6B Prowler and EA-18G Growler aircraft can complete these LAT maneuvers. LATT is approximately twenty percent of the Electronic Attack Wing training requirement.
17. NWSTF Boardman consists of a small Navy-administered parcel of land in Morrow County, Oregon and Federal Aviation Administration (FAA) established Special Use Airspace (SUA). The SUA consists of three separate portions of airspace: 1) Restricted Airspace (R-5701) that allows flight operations down to zero feet above ground level (AGL), 2) R-5706 that allows flight operations down to 3,500 feet AGL, and 3) the



Boardman Military Operating Area (MOA) that groups these three portions of airspace together to provide the necessary SUA to support military operations and readiness at NWSTF Boardman. In addition to the established SUA, there are several MTRs, which follow both Instrument Flight Rules (IR) and Visual Flight Rules (VR), and provide ingress and egress to the restricted airspace. These MTRs are not SUA but provide the capability of high speed, low altitude entry into the restricted airspace of the SUA. While NWSTF Boardman was originally developed in support of airborne ordnance delivery, the use of the area has been modified over time to support the Oregon National Guard's use of Unmanned Air Systems (UAS) and is the Navy's primary resource for all airborne electronic attack aircraft (EA-6B Prowler and EA-18G Growler) low altitude air combat maneuver training.

18. As the Deputy Commodore for CVWP, I am aware of the Saddle Butte wind energy project that is proposed to be located within the airspace of four MTRs, specifically IR-342; IR-344; IR-346; and VR-1353, which are southwest of NWSTF Boardman. I have flown these routes many times. I am aware of operational input provided in the past regarding the impact to Electronic Attack Wing training in the MTRs should they be further constrained with this additional wind farm of turbines over 400 feet in height. My Commodore, CAPT John P. Springett, previously signed a letter dated December 7, 2012 explaining CVWP concerns with impact of the Saddle Butte (Caithness) wind project on low-altitude military training that I am attaching as Exhibit A to this declaration.

19. CVWP squadrons are the current principal users of the airspace surrounding NWSTF Boardman. The LATT requirement is approximately 20% of the training and readiness

matrix for which the aircrews use the MTRs. The MTRs affected by the proposed Saddle Butte project support 575 - 600 training events per year and play a critical role in maintaining combat readiness of the CVWP aircrews.

20. The four MTRs impacted in this case have been in existence for 50 years with the same dimensions. The MTRs were developed through joint venture by the Federal Aviation Administration and the Department of Defense to allow for low-altitude, high speed training. When these MTRs were developed, there was recognition that the required maneuvers and high speeds necessary low tactical training occasionally make the see-and-avoid aspect of Visual Flight Rules (VFR) flight more difficult without increased attention to the surroundings during such operations. In an effort to ensure the greatest practical level of safety for all flight operations, nonparticipating aircraft that are not prohibited from flying through these areas are cautioned to use extreme vigilance if flying through or near these routes. Each MTR has a particular width that was measured to contain the military activities safely with appropriate maneuvering space given the terrain and expected aircraft speeds. These four MTRs have by design an eight (8) nautical mile width (four nautical miles each direction from centerline) given the average speed (not to exceed 420 knots) for aircraft operating with these four routes and the terrain in this part of Eastern Oregon. (See excerpt of DoD Flight Information Publication (FLIP) AP/1B attached as Exhibit B to this declaration)

21. Having flown within these MTRs, using visual flight rules, I am keenly aware that there needs to be sufficient space to allow safe multi-aircraft tactical formation of at least two aircraft. While FAA regulations require pilots to maintain a minimum of 500 feet separation distance between aircraft and man-made obstacles, CVWP's squadrons

adhere to a standard operating procedure of maintaining approximately 1 nautical mile around aircraft and obstacles when training permits. This minimum ensures that all pilots training within the MTRs are able to execute tactical maneuvers with an appropriate margin of safety. Given this local standard operating procedure, aircraft operate in these four MTRs with minimum lateral separation. In other words, if you placed one aircraft one (1) nm from an obstacle and placed a second aircraft one (1) nm laterally from the first and allowed an additional one (1) nm for boundary buffer; the net result is three (3) nautical miles of space. However, because of the flight dynamics and aircraft speed involved, the minimum distance to allow for slight maneuvering while maintaining tactical formation safely needs to be four (4) nm.

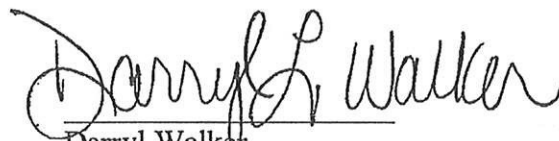
22. While CVWP aircraft have already been operating around the existing wind turbines obstructing the full eight nautical miles of these MTRs, additional Saddle Butte Wind Park turbines would create a cumulative impact that prevents the Navy from safely completing the required training conducted at NWSTF Boardman. Approximately 216 aircrews per year will be unable to deploy with the required skills needed to conduct specific mission essential tasks that support military operations and readiness requirements, if they cannot conduct the training within these MTRs with sufficient area to safely maneuver.

23. Even with the existing turbines in these MTRs, presently aircrews desire to stay low (for terrain masking and threat avoidance) to the greatest extent possible to meet training requirements and choose, therefore, to go around obstacles (assuming there is sufficient lateral clearance and route width), rather than artificially high-lighting themselves by going over obstacles. In instances of insufficient lateral clearance, the

only choice is to go over the obstacles, which greatly reduces the value of the low altitude tactical training. If the turbines are built as proposed in the locations indicated, they would completely bisect the remaining clear width of the four MTRs (approximately 4 nautical miles) with structures over 400 feet above ground level eliminating the ability to maintain the required terrain-masking altitudes for quality LAT training. This would also result in insufficient clearance and create heightened safety of flight risk at a critical juncture—just prior to entering the NWSTF Boardman target area when the pilot should be focused on safely entering and clearing the airspace.

I hereby declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief.

Executed on the 5<sup>th</sup> day of December, 2013 at Gulfport, Mississippi.

A handwritten signature in cursive script that reads "Darryl Walker". The signature is written in black ink and is positioned above a horizontal line.

Darryl Walker  
Captain, U.S. Navy  
Deputy Commander, Electronic Attack Wing, U.S.  
Pacific Fleet



**DEPARTMENT OF THE NAVY**  
COMMANDER ELECTRONIC ATTACK WING  
U.S. PACIFIC FLEET  
NAVAL AIR STATION, WHIDDEY ISLAND  
3700 N. CHARLES FORTER AVENUE  
OAK HARBOR, WASHINGTON 98276-7800

IN REPLY REFER  
TO:

3700  
Ser N00/455  
7 Dec 12

**From:** Commander, Electronic Attack Wing, U.S. Pacific Fleet  
**To:** Commander, U.S. Pacific Fleet  
**Via:** (1) Commanding Officer, Fleet Area Control and  
Surveillance Facility San Diego  
(2) Commander, Naval Air Force, U.S. Pacific Fleet

**Subj:** OPERATIONAL INPUT REGARDING WIND TURBINE PROJECTS IVO  
MILITARY TRAINING ROUTES UTILIZED BY COMVAQWINGPAC UNITS

**Ref:** (a) COMVAQWINGPAC ltr 3700 Ser N00/204 dtd 23 Jul 2010  
(b) COMVAQWINGPAC ltr 5030 Ser N00/344 dtd 19 Jul 2011  
(c) COMVAQWINGPAC ltr 3700 Ser N00/028 dtd 26 Jan 2012  
(d) COMNAVAIRPAC ltr 3721 Ser N01/109 dtd 6 Feb 2012  
(e) COMVAQWINGPAC ltr 3700 Ser N00/122 dtd 3 May 2012

1. Background. U.S. government incentives and a robust existing infrastructure have resulted in increased demand for wind turbine power generation in the Pacific Northwest. Reference (a) is a Commander, Electronic Attack Wing, U.S. Pacific Fleet (COMVAQWINGPAC) letter addressing wind energy encroachment into the Naval Weapons Systems Training Facility (NWSTF) Boardman Restricted Area 5701. Reference (b) is a COMVAQWINGPAC request to designate the Oregon Wind (Umatilla) and Poplar Windfarm projects as a national security risk. Reference (c) is a COMVAQWINGPAC letter addressing the construction of new power transmission lines in the R-5701 and the expected impact on overall COMVAQWINGPAC operational readiness. Reference (d) is COMNAVAIRPAC endorsement of reference (c). Reference (e) is COMVAQWINGPAC statement of the operational impact of expanded wind turbine construction within the R-5701/Boardman Ranges.

2. Unimpeded access to viable low-altitude Military Training Routes (MTRs) is vital to successfully training our military aviators. These MTR's minimize risk to military crews and the general public by creating safe, dedicated training routes that mitigate potential navigational and safety of flight risks and allow the military to train and remain proficient in the low altitude environment. Any encroachment in the existing route structure laterally or vertically will negatively impact training and the overall combat readiness of the U.S. Navy. Safety of flight and low altitude tactical training is degraded

Exhibit A to Encl (5)

Subj: OPERATIONAL INPUT REGARDING WIND TURBINE PROJECTS IVO  
MILITARY TRAINING ROUTES UTILIZED BY COMVAQWINGPAC UNITS

by any hard to see, man-made obstacle that penetrates above 100' Above Ground Level within the confines of an MTR and therefore increases the potential for loss of aircraft and aircrew. COMVAQWINGPAC remains opposed to any new vertical obstructions within the confines of existing MTRs, regardless of their location.

3. The currently proposed Caithness Wind projects, impacting the R-5701 Restricted Area and the IR-342, IR-344, IR-346, VR-1353, and VR-1355 MTRs, will effectively deny the execution of target-area tactics or proper route entry for the MTRs in question. The MTRs affected by the Caithness Wind projects support 575-600 training events per year and play a critical role in maintaining combat readiness of COMVAQWINGPAC aircrew.

4. My point of contact for this issue is CDR Jason Temple commercial (360)257-3630, DSN 820-3630, or email at [jason.temple@navy.mil](mailto:jason.temple@navy.mil).

  
J. P. SPRINGETT

AP/1B

DoD  
FLIGHT INFORMATION PUBLICATION

## AREA PLANNING

### MILITARY TRAINING ROUTES

# NORTH AND SOUTH AMERICA

13 JAN 2011

NEXT ISSUE 10 MAR 2011

Consult NOTAMS for latest information.



Published by  
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY  
ST. LOUIS, MISSOURI

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NSN 7641014109670  
NGA REF. NO. PLANXAP1BBOOK



EFF. DATE 11013

Effective 13 JAN 2011 - 10 MAR 2011

Exhibit B to Encl (5)



DEPARTMENT OF THE NAVY  
NAVAL AIR STATION WHIDBEY ISLAND  
3730 NORTH CHARLES PORTER AVENUE  
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3700  
Ser N00/1229  
August 30, 2013

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SUBJECT: SADDLE BUTTE WIND PARK DRAFT PROPOSED ORDER

Dear Ms. Morgan,

The Navy has reviewed the Draft Proposed Order (DPO) for the siting of the Saddle Butte Wind Park project proposed by Pat Pilz on land in Morrow and Gilliam Counties, and offers the following comments on the proposed project for consideration by the Council in their decision on the pending Application for Site Certificate (ASC).

Based on the information regarding the site location contained in the ASC it is apparent that the project is proposed in a location where navigable airspace is utilized by military aircraft for military readiness training activities by the Navy and other military services. Specifically, the site lies under Navy's Northwest Training Range Complex (NWTRC) military training routes (MTR), for which the Naval Air Station Whidbey Island is the scheduling facility. MTRs are high-speed, low-altitude airspace corridors established by the Federal Aviation Administration (FAA) extending laterally four nautical miles either side of centerline and, generally, from 200 feet above ground level (AGL) to 1,500 feet AGL. For more than 50 years these corridors have been flown routinely by Navy aircraft to fulfill unique and demanding low-altitude training requirements. In the Saddle Butte area MTR VR-1353, IR-342, 344 & 346 are utilized for both instrument (IR) and visual (VR) flight rules at an elevation down to 200 feet AGL, and serve as the primary flight approach into Restricted Area R-5701 and the Boardman Bombing Range located to the northeast. Given the height of the proposed turbines (over 400 feet tall) and their location under designated MTR's, the Navy has serious concerns as to the safety of Navy air crews and the general public, as well as the negative impact these new vertical obstructions would have on the ability for flight crews to complete low-altitude training essential to military preparedness.

The attached graphic depicts the location of existing MTRs in relationship to the Saddle Butte project. As evident from the graphic and as noted in the ASC, the MTRs in this area are already severely impacted by existing wind turbines, particularly those in the Shepherds Flat South project. Per FAA regulation §91.119, a minimum 500 feet vertical and lateral separation distance is required between

Appendix A



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aircraft and obstacles. As a result of these existing obstructions and constraints, only approximately the southern three miles of the eight-mile-wide MTR corridor now remain available for training purposes in this critical final leg of the low-altitude approach into R-5701 and the Boardman target area. The cumulative effect of the additional Saddle Butte turbines (in particular the southeastern portion of the project) would be to completely cut off that remaining portion of the MTR corridor, denying aircraft the ability to safely maneuver in this designated low-altitude training environment.

In response to the recommendation made by Oregon Department of Aviation to address "aviation safety" and potential "physical hazards" (page 8 of the Amended Project Order issued 12 July, 2011), the applicant included in Exhibit BB of the ASC a suggested condition of project approval which would in effect, rely on the FAA for disposition of issues related to aviation safety and potential hazards. While the Navy fully intends to provide our comments, since the FAA does not include military airspace such as MTRs in its OE/AAA obstruction review process, the applicant's suggested condition would be wholly ineffective in protecting military flight safety and training capability.

Navy representatives have had several conversations and meetings with the Applicant, focused primarily on protection of the R-5701 restricted airspace. The Navy's current understanding is that the proposed Saddle Butte project would not directly impact R-5701 itself as the nearest turbine would be located some five miles from its southwest boundary.

However, with respect to MTRs, in email and phone correspondence dating back to at least February of 2013, the Navy has clearly and consistently expressed concerns to the applicant over Saddle Butte impacts to military flight training, including requests to mitigate those impacts by removing or relocating turbines proposed under the MTRs.

While the Navy is supportive of renewable energy development, the safety of Navy air crews and the maintenance of military preparedness are our paramount considerations. We therefore urge the Energy Facility Siting Council to take action on the pending application that would support a successful wind project while still ensuring the safety of military aircraft and sustainment of training capabilities critical to the national defense. We do not assert "ownership" of property or the airspace above it, only a legitimate right to continue historic use of low-altitude military airspace designated by the FAA. We believe our interests are as legitimate as those of other stakeholders (landowners, developers, regulatory agencies), and we

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have the obligation to protect against any activity that infringes/constrains this vital military training capability. In the EFSC's role of reviewing and conditioning energy projects, it is appropriate that they give full consideration to all these various interests. To do otherwise would be detrimental to the public health, safety, welfare, and, ultimately, to our national defense.

Thank you for this opportunity to comment. My point of contact on this matter is Rick McArdle, rick.mcardle@navy.mil.

Sincerely,



M. K. NORTIER  
Captain, U.S. Navy  
Commanding Officer

Enclosure: 1. Map - Saddle Butte Relationship to MTR's

Copy to:

Navy Regional Airspace Coordinator  
Navy NAVREP

DOD Western Regional Environmental Office (Attn: Gary Munsterman,  
AICP), 50 Fremont St., Suite 2450, San Francisco, CA 94105

DoD Siting Clearinghouse, ODUSD(I&E) (Attn: Mike Aimone)

WADS/NORAD (Attn: LtCol Kim Wendt, WA ANG), 852 Lincoln Blvd., JBLM,  
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Oregon Department of Aviation (Attn: Jeff Caines) 3040 25th St. SE,  
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Pat Pilz, 656 San Miguel Way, Sacramento, CA 95819

