EXHIBIT NO. ___(RG-9HC)
DOCKET NO. UE-11___/UG-11___
2011 PSE GENERAL RATE CASE
WITNESS: ROGER GARRATT

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,	
Complainant,	
v.	Docket No. UE-11 Docket No. UG-11
PUGET SOUND ENERGY, INC.,	
Respondent.	

EIGHTH EXHIBIT (HIGHLY CONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF ROGER GARRATT ON BEHALF OF PUGET SOUND ENERGY, INC.

REDACTED VERSION

JUNE 13, 2011



RESOURCE ACQUISITION UPDATE

Roger Garratt Director, Resource Acquisition

2007 Resource Acquisition

Completed

Fuel	Project	Owner	MM	Offer	COD/Term	Status
		/Developer				
Natural Gas	Goldendale	Calpine	277	Ownership	Mar-07	Complete
PPA	Winter On Peak Energy	Powerex	150	4 year PPA	2008-2012	Complete
Wind	Klondike III	PPM Energy	20	20 year PPA	Dec-07	Complete
PPA	Partial Sumas Energy Replacement	Lehman	20	~4 year PPA	~4 year PPA 2009-Q1,2013	Complete

Pending Resource Opportunities

		July	
Status	Indiscussion	~4 year PPA 2009-Q1,2013 Expected completion - July 24, 2007	Exploratory
COD/Term		2009-Q1,2013	
Offer	1-2 year PPA	~4 year PPA	
MW			
Owner /Developer			PSE or PSE/Joint Development Partner
Project	Ancillary Services		Greenfield Opportunities
Fuel	PPA	PPA	Wind



Targeted Renewables

7 2008 Hopkins Ridge Infill PSE 2009 2009 2009 2009 2009 2010 2010 2008		000	Project	Developer	County	State	C.F.	Notes:
2009 2009 2008 2009 2009 2009 2010 2010	7	2008	Hopkins Ridge Infill	PSE	Columbia	WA		Turbine & Service Agreements under negotiation
2009 2008 2009 2009 2009 2010 2011		2008				WA		PPA term sheet under negotiation
2008 2009 2009 2009 2010 2011		2009				WA		PSE is preparing term sheet
2009 2009 2009 2010 2011 2008		2009				WA		Term sheet under negotiation
2009 2009 2010 2011 2008		2008				Q		Awaiting term sheet from
2009 2010 2011 2008		2009				OR		is preparing proposal
2010 2011 2008		2009				WA		Term sheet offer sent by PSE
2010 2011 2008		2009				WA		Term sheet under negotiation
2008		2010				WA		Joint venture under negotiation
2008		2011				WA		Joint venture under negotiation
		2008				WA		PSE is preparing term sheet
2009-13	,,,	2009-13				WA		Joint venture under discussion
1,545 TOTAL	_	TOTAL						

Note: PSE is actively following all the projects above. Out of this list, 325 aMW of incremental renewable resources is needed to meet the RPS requirement by 2020.





RESOURCE ACQUISITION UPDATE September 25, 2007

Roger Garratt Director, Resource Acquisition & Emerging Technologies

2007 Resource Acquisition

Completed

		1		_	
Status	Complete	Complete	Complete	Complete	Complete
COD/Term	Mar-07	2008-2012	Dec-07	~4-year PPA 2009-Q1,2013	-4-year PPA 2009-Q1,2013
Offer	ownership	4-year PPA	20-year PPA	~4-year PPA	-4-year PPA
MW	277	150	20	90	75/25*
Owner /Developer	Calpine	Powerex	PPM Energy	Lehman	Sempra
Project	Goldendale	Winter On Peak Energy	Klondike III	Sumas Energy Replacement	Sumas Energy Replacement
Fuel	Natural Gas	System Power	Wind	System	System Power

*75 MW Q1, Q3 and Q4; 25 MW Q2

Active Resource Opportunities

Fuel	Project	Owner /Developer	MM	Offer	COD/Term	Status
Natural Gas	Sumas Cogen	Sumas	133	Ownership	31-Dec-07	Under negotiation
Wind	Hopkins Ridge Infill	PSE	7	Ownership	Jul-08	Under negotiation
Biomass				20-year PPA	1-Oct-09	Draft PPA preparation underway
Geothermal			15	25-year PPA	2010	Term sheet under negotiation



Joint venture under negotiation

Joint venture under discussion

WA

2009-13

2011

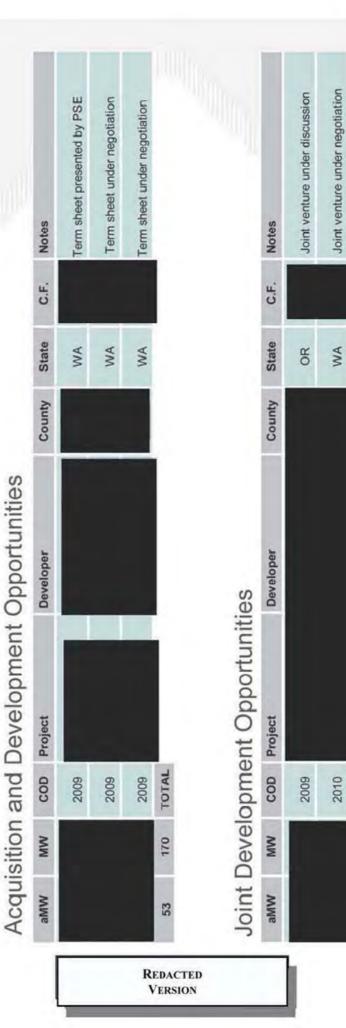
TOTAL

1,050

331

WA

Future Acquisition & Improved Control Targeted Renewable Opportunities for



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RESOURCE ACQUISITION UPDATE October 31, 2007

Roger Garratt Director, Resource Acquisition & Emerging Technologies

2007 Resource Acquisition

Completed

Fuel	Project	Owner /Developer	MW	Offer	COD/Term	Status
Natural Gas	Goldendale	Calpine	277	ownership	Mar-07	Complete
System	Winter On Peak Energy	Powerex	150	4-year PPA	2008-2012	Complete
Wind	Klondike III	PPM Energy	90	20-year PPA	Dec-07	Complete
System	Sumas Energy Replacement	Lehman	90	~4-year PPA	2009-Q1,2013	Complete
System	Sumas Energy Replacement	Sempra	75/25*	~4-year PPA	~4-year PPA 2009-Q1,2013	Complete

*75 MW Q1, Q3 and Q4; 25 MW Q2



2007 Resource Acquisition

Active Resource Opportunities

	COD/Term Status	ip 8-May-07 Under negotiation	ip Jul-08 Under negotiation	PA 1-Oct-09 PPA under negotiation	PA 2010 Term sheet under negoliation	Z009 Term sheet under negotiation	ip 2010 Draft APA preparation underway	
	Offer	Ownership	Ownership	20-year PPA	25-year PPA	PPA	Ownership	
	MW	133	7					
0000	Owner /Developer	Sumas	PSE					
total record of plantage	Project	Sumas Cogen	Hopkins Ridge Infill					
	Fuel	Natural Gas	Wind	Biomass	Geothermal	Wind	Wind	14/5-4



REDACTED VERSION

Whiskey Ridge Wind Project Development

Developer: Horizon Wind Energy

Kittitas County, WA Location:

North of Wild Horse Wind Project

40 MW Size: Capacity Factor: ≈

V82 or V90 Turbines: 1,400 acres; Land acquisition; Real Estate:

> REDACTED VERSION

1 landowner (AMLC)

Interconnection: Wild Horse 230kV Substation

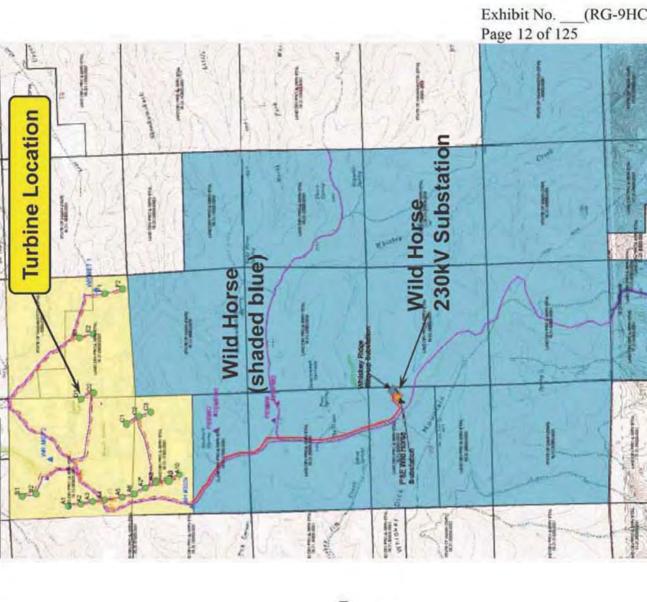
Permitting: Amendment to Wild Horse EFSEC

Expected COD: 12/31/2009

Commercial Terms:

- Developer Fee \$
 - Land Purchase \$
- Developer Royalty \$

per MWh



(RG-9HC)

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Active Renewable Acquisitions

REDACTED VERSION



Biomass Cogeneration: Power Purchase Agreement

Transaction Summary:

and associated green attributes 100% of electrical output

Term:

w/fuel price adjustment in Y10 & Y15 20-year term

Delivery Point:

Project busbar

per MWh flat

Price:

Fuel:

Unit contingent capacity and energy

Product:

REDACTED VERSION

Expected Energy:

annual average MW

Guaranteed COD:

October 1, 2009

Next Actions:

Next commercial meeting scheduled for December 12 Expected EMC approval January 2008



Whiskey Ridge Wind Project Development

Horizon Wind Energy Developer:

North of Wild Horse Wind Project Kittitas County, WA

Location:

Commercial Terms:

Purchase of Development Assets

Payment:

per MWh Production Royalty on closing

Real Estate:

1,400 acres; 1 landowner (AMLC) Option expires 2/16/2008 Purchase Option Price

REDACTED VERSION

Facilities Study near completion Interconnection: Wild Horse 230kV Substation

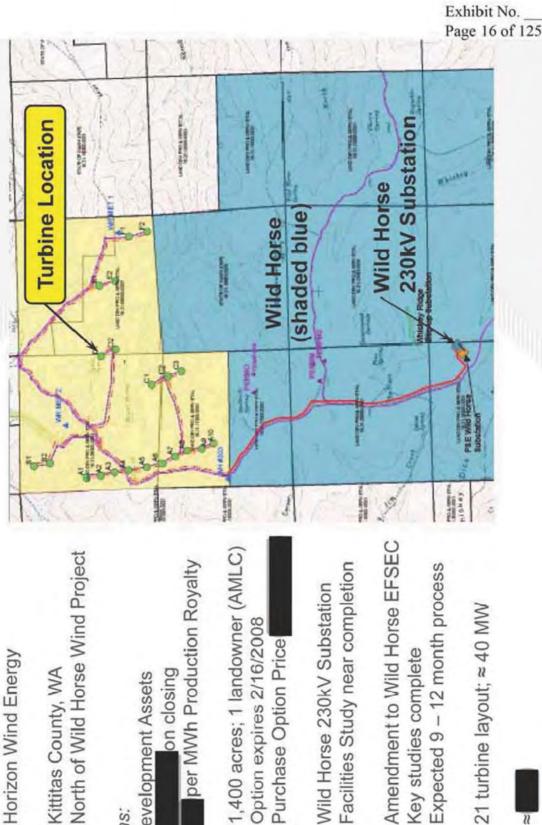
Key studies complete

Permitting:

Expected 9 - 12 month process

21 turbine layout; ≈ 40 MW

Capacity Factor: ≈





(RG-9HC)

RES/PSE Joint Development-Eastern WA

Developer: RES America Developments, Inc.

Columbia and Garfield County, WA Adjacent to Hopkins Ridge Location:

Commercial Terms:

Joint Development Agreement

50% undivided interest in development assets

payment on closing

REDACTED VERSION

50% share of external development expenses

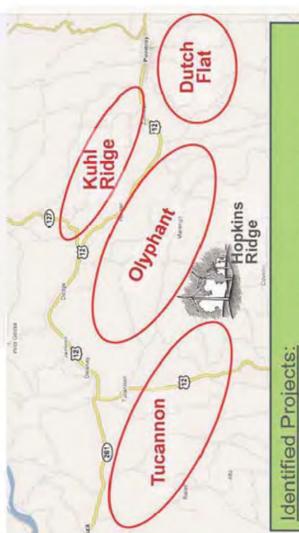
Each party responsible for internal expenses 50% ownership / 50% PPA >25,000 acres; ≈ 100 landowners Real Estate:

Land leases in process of being executed

Interconnection: Requests in for 1,300 MW

@ BPA Little Goose 500kV Substation

Permitting/Community: Stratgey being developed



Tucannon ·Olyphant

- 179 turbines (Columbia Co.)

(Columbia & Garfield Co.) (Garfiled Co.) - 102 turbines - 120 turbine

> ·Kuhl Ridge Dutch Flat

Garfield Co. - 100 turbines PSE PUGET SOUND ENERGY The energy to do great things

VERSION

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Power Purchase Agreement Wind Project:

Latest Project Updates:

Dec 7: Next hearing on EFSEC Appeals

Move to consolidate appeals

Move to send record to Supreme Court

Price increase due to new turbine delivery schedule

Previous price offer = § per MWh flat

turbine pricing for late 2008 delivery = §

New

per MWh flat

REDACTED VERSION

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Whiskey Ridge Power Partners, LLC Acquisition of Development Assets

Energy Management Committee Meeting January 31, 2008

Recommendation to the EMC

Approval to enter into Asset Purchase Agreement ("APA") with Whiskey Ridge Power Partners, LLC ("WRPP") to acquire the development rights for a wind generation facility.

with American Minerals and Land Corporation ("AMLC") to acquire Approval to enter into Real Estate Purchase and Sale Agreement 1,400 acres of real property.

Approval of #million development budget to complete development activities up to construction notice to proceed ("NTP"). (In future, EMC request for approval of turbine deposit and supply agreement and "all-in" construction budget.)

3

REDACTED VERSION



Project Description

Developer:

Energias de Portugal, S.A. ("EDP") parent Whiskey Ridge Power Partners, LLC a Horizon Wind Energy, LLC project

Location:

Adjacent to Wild Horse Wind Project Kittitas County, WA

Land control:

WDFW land access easement required 1,400 acres; private land; 1 landowner Shrub steppe habitat

> REDACTED VERSION

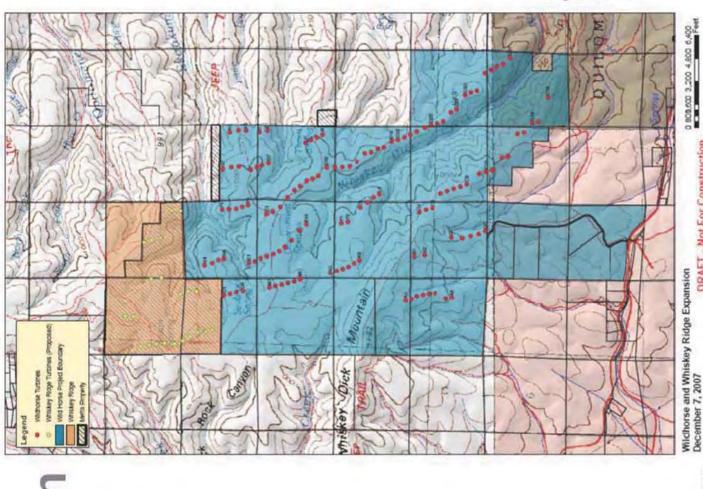
Nameplate Capacity:

39.6 MW

22 Vestas V80 1.8 MW (assumed)

% net capacity factor

Wild Horse 230kV Substation Transmission interconnection:



Energy Management Comm

DRAFT - Not For Construction

Asset Purchase Agreement

Purchase price:



Project development assets (see appendix):

Two meteorological towers and equipment
Wind data and analysis
Transmission interconnection studies and agreements
Real property agreements
Environmental studies/surveys

REDACTED VERSION Caurus Power royalty agreement

escalation) % of gross revenues for 30 years (based on \$ MWh +

Outstanding items:

Delivery of Phase I environmental site assessment (expected Feb 1) Delivery of title policy



0 0.125 0.25

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Real Estate Purchase & Issues

Spurchase price
Option expires February 16, 2008
ALTA survey review complete
Awaiting title policy

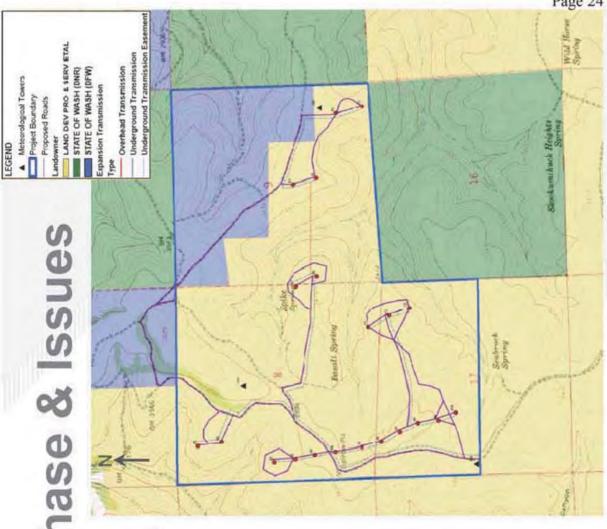
Access easement required from WA Dept of Fish & Wildlife ("WDFW") to use 1.5 miles of existing road for 4 turbines

Requires state and federal approvals -- excess of 1 year

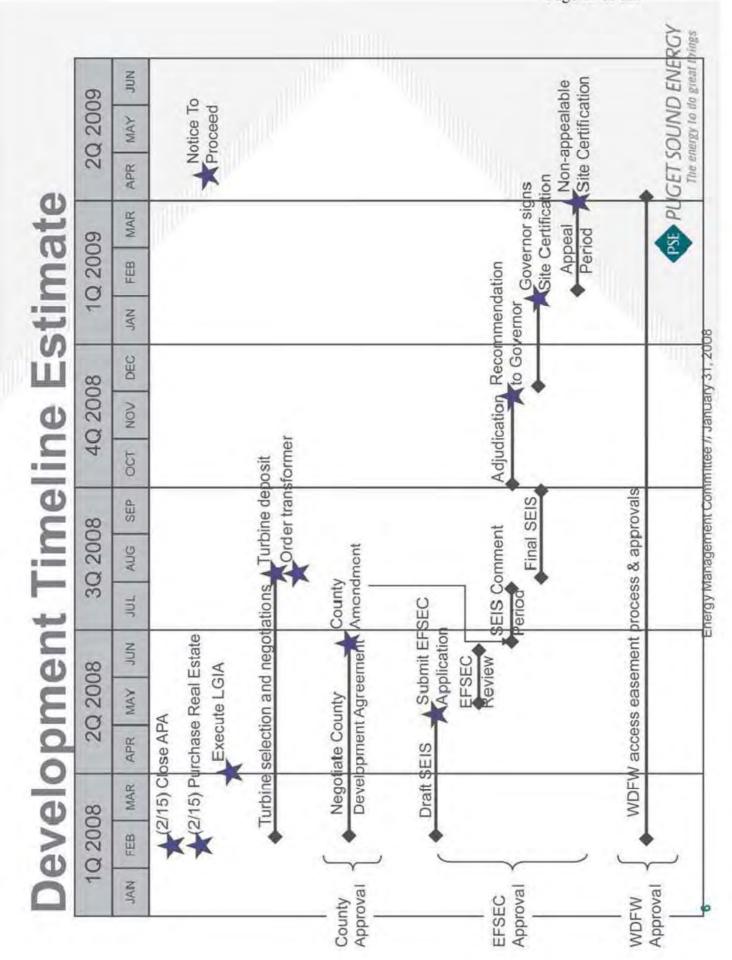
REDACTED VERSION Surface Use Agreement conveys oil, gas, mineral rights to a limited partnership

Coordination provisions include 500' setback requirement from turbines

Closest seasonal cabin ≈4200 ft from turbine



Energy Management Committee // January 31, 2008



Development Activities & Budget Estimate

APA & Real Estate Purchase:

PSE Development Costs:

Definitive Agreements

Execute Interconnection Agreement Negotiate turbine supply agreement Negotiate EPC agreement

Environmental/Permitting:

\$,000\$

DEVELOPMENT RIGHTS

DESCRIPTION

REAL ESTATE

Obtain EFSEC amendment to Wild Horse SCA Negotiate county development agreement Complete environmental studies

Real Estate

Perfect all real estate rights

Obtain WDFW access easement rights

Communications / Community

Deploy communications plan Meet with stakeholders

Technical Issues

PSE LABOR & EXPENSE - DEVELOPMENT

TOTAL DEVELOPMENT BUDGET

CONTINGENCY

COMMUNITY RELATIONS / COMMUNICATIONS

ENVIRONMENTAL / PERMITTING

METEOROLOGY

EGAL

REDACTED VERSION

TRANSMISSION INTERCONNECTION

PRELIMINARY ENGINEERING

Preliminary engineering work

Complete wind resource analysis Selection of turbine manufacturer



Project Risks and Mitigation

AREA	RISKS	MITIGATION
Permitting	Project not permittable	Low barrier costs to entry at this early phase; can salvage land value
Real Estate	Inability to gain WDFW access	Reduce size of project by 4 turbines
Wind Resource	Reduced capacity factor	Reviewed by two wind analysts; lowest capacity factor included in economics
Development Budget	Development budget exceeds current estimated	Conservative budget estimate; budget will continue to be refined; updates to EMC as appropriate
Economic Viability	Project no longer economic	PSE preparing an accounting petition for cost recovery



Key Findings / Benefits

Project ownership opportunity

Savings on developer premium

Synergies with Wild Horse

REDACTED VERSION

Value add:
Typical Fee source:

Whiskey Ridge Assumed fee is 4 + Horizon royalty + Caurus royalty

PSE controls development and construction

PSE project development team & experience



Energy Management Committee // January 31, 2008

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Development Progress

Regular EMC briefings on development progress and new findings

Future EMC Approval Requests

Turbine supply agreement and procurement of project step-up transformer

Expected Date

2Q 2008

Construction budget (project pro forma),
Engineering, Procurement and Construction ("EPC")
and Notice to Proceed ("NTP")

10 2009

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Appendix

Whiskey Ridge Power Partners, LLC Acquisition of Development Assets

Project Development Team

PSE

Roger Thompson Doug Faulkner Scott Williams Steve St. Clair Sam Osborne Lorna Luebbe **Brian Doughty** Aliza Seelig Brian Lenz Kurt Krebs Kim Lane

- Financial Analysis
- Siting Project Manager
- Real Estate
- Community Relations
- Corporate Communications
- Transmission Integration
- Legal (Commercial)
- Legal (Environmental)
- Engineering/Technical
- Construction Management Asset Management

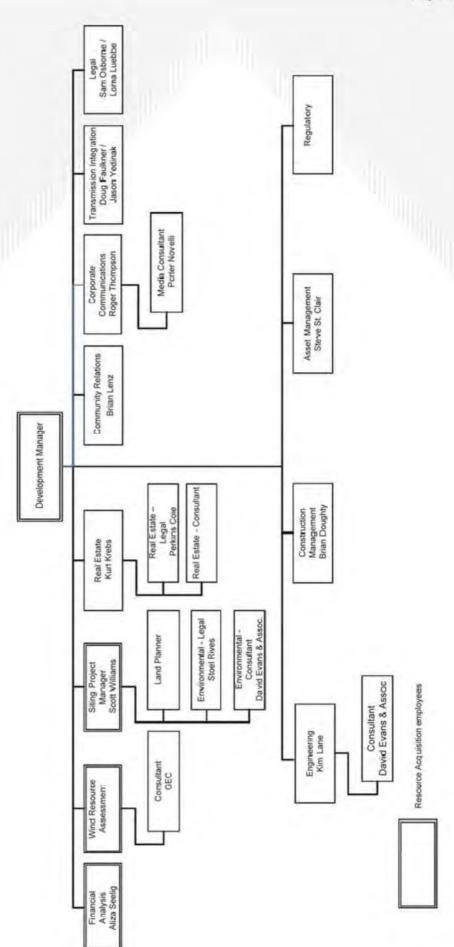
External

Global Energy Concepts David Evans & Assoc. David Evans & Assoc. Dewey & LeBoeuf Porter Novelli Perkins Coie Stoel Rives

- Legal (Commercial)
- Legal (Environmental)
- Legal (Real Estate)
- Environmental Consultant
- Engineering Consultant
 - Wind Consultant
- Media Consultant



Project Development Organization

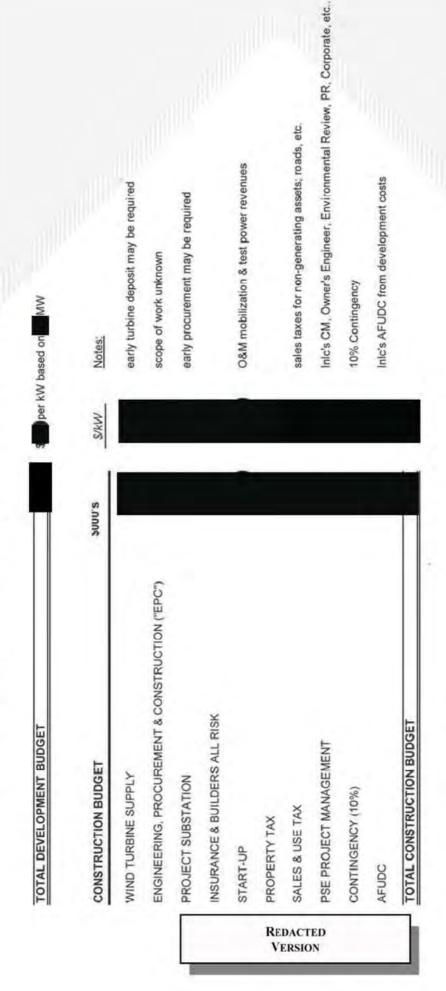


Note: (1) Tean leadership would "rotate" to Construction Management at Notice to Proceed and "rotate" to Asset Management at Commercial Operation.
(2) FTE equivalents shown for Engineering, Construction Management and Asset Management assume acquisition of SDS, Lumber, Whiskey Ridge, RES co-development and Chehalis.

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Total "all-in" Capital Budget



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Energy Management Committee // January 31, 2008

TOTAL "ALL-IN" CAPITAL COSTS

EXHIBIT A

PROJECT DEVELOPMENT ASSETS

Meteorological

- Two (2) 50 m NRG meteorological towers and associated sensor and data logging equipment
 - Met Tower 319 installed 6/13/2005
 - Met Tower 320 installed 6/15/2005
- Wind Data from meteorological towers
 - Met Tower 319 30 months of data from 12/1/2005 to 9/30/2006
 - Met Tower 320 30 months of dala from 9/1/2005 to 12/31/2006
 - Met Tower 303 57 months of data from 3/30/2003 to 12/31/2006
 - Met Tower 207 (Data set as purchased from EnXco, tower decommissioned)
 - Met Tower 208 (Data set as purchased from EnXco, tower decommissioned)
- Wind Resource Assessment Report and Draft Layout prepared by RAM Associates, dated January 10, 2006
- Wind Resource Assessment updated analysis results as emailed from RAM Associates, dated January 10, 2007

Transmission

- Interconnection Facilities Study Agreement for Whiskey Ridge Power Project, by and between Whiskey Ridge Power Partners, LLC, and Puget Sound Energy, Inc., dated 02/08/07
- Final Interconnection System Impact Study, Whiskey Ridge Wind Power Project, prepared by Puget Sound Energy, Inc., dated 10/26/06
- System Impact Study Agreement between Puget Sound Energy, Inc., and Whiskey Ridge Power Partners, LLC, dated 3/20/06
- Whiskey Ridge Wind Power Project, Application for Interconnection, submitted to Puget Sound Energy, Inc. by Whiskey Ridge Power Partners LLC, dated 9/21/05

Real Property Agreements

- Title Commitment for American Minerals & Land Corp, Effective 11/28/07 Part 1 and 2
- Memorandum of Option and Real Estate Purchase and Sale Agreement between American Minerals and Land Corporation and Land Development and Promotion Services, Inc. and Zilkha Renewable Energy LLC, dated 02/16/05
- Agreement between Caurus Power Inc., Zilkha Renewable Energy Northwest I, LLC, and Zilkha Renewable Energy, LLC, conferring rights of assignment to Purchase Option dated 2/16/05, executed 2/7/05

- Option and Real Estate Purchase and Sale Agreement, between American Minerals and Land Corporation and Land Promotion Services, Inc. (collectively Optionor) and Zilkha Renewable Energy LLC (Optionee), for 1400 acres, dated 2/16/05
- Easement Agreement, dated September 30, 2005 between Horizon Wind Energy, LLC and Puget Sound Energy, Inc. (recorded in the Kittitas County Auditor/Recorder's Office as Document No. 200510060044)
- Adjacent Project Agreement dated September 30, 2005 between Horizon Wind Energy, LLC and Puget Sound Energy, Inc. (recorded in the Kittitas County Auditor/Recorder's Office as Document No. 2005100600__)

Permits

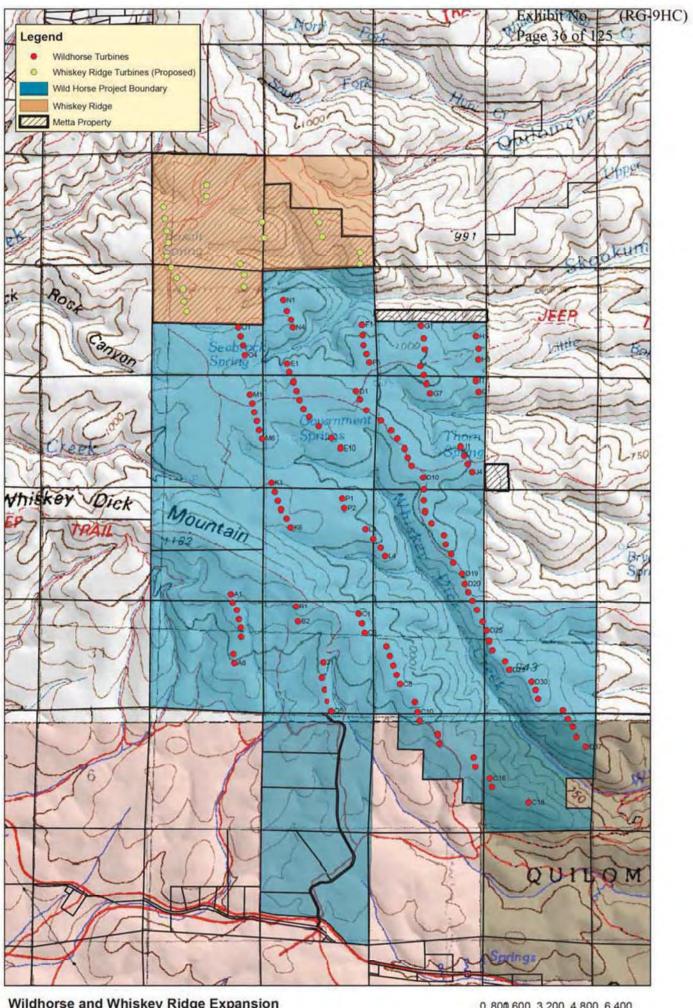
 Federal Aviation Administration (FAA) Determination of No Hazard to Air Navigation, Aeronautical Study No. 2007-ANM-584-OE through 2007-ANM-604-OE, dated 3/22/07

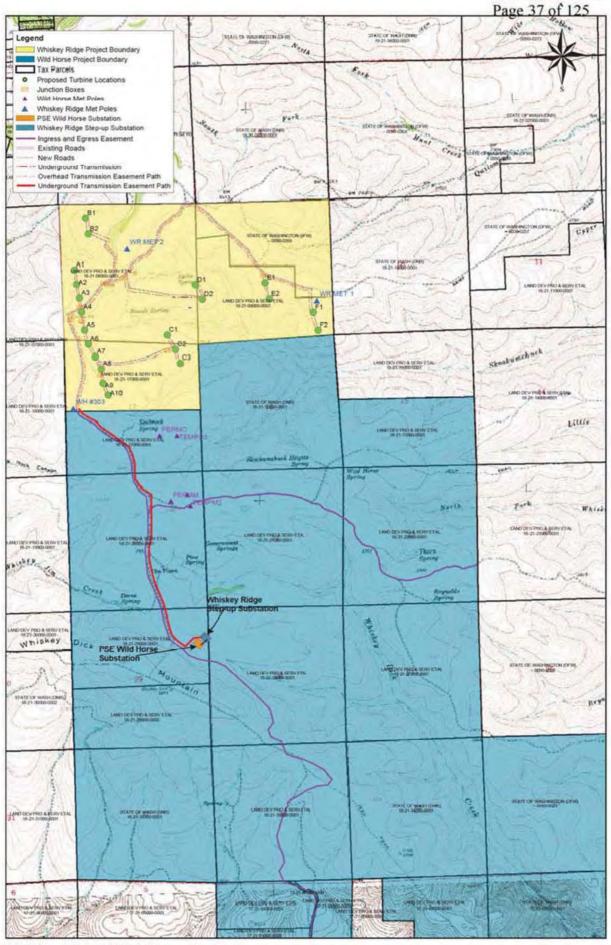
Studies/Surveys

- Wildlife and Habitat Baseline Study for the Whiskey Ridge Wind Power Project, DRAFT, prepared by WEST, Inc., for Whiskey Ridge Power Partners, LLC, dated 5/07
- Wildlife and Habitat Baseline Study Addendum summarizing findings of WR Bat Study prepared by WEST, Inc., 2007
- Draft Cultural Survey Report prepared by Lithic Analyst October 05
- Supplemental Cultural Survey Report prepared by Lithic Analyst July 05

Miscellaneous

- Stoel Rives memo addressing the permiting of WR under amendment to the WH EFSEC SCA and County Development Agreement
- Whiskey Ridge Wind Power Project, Preliminary Layout, dated 8/28/07
- Federal Aviation Administration Coordinates and Lighting Scheme Filed for Whiskey Ridge, dated 02052007





Horizon

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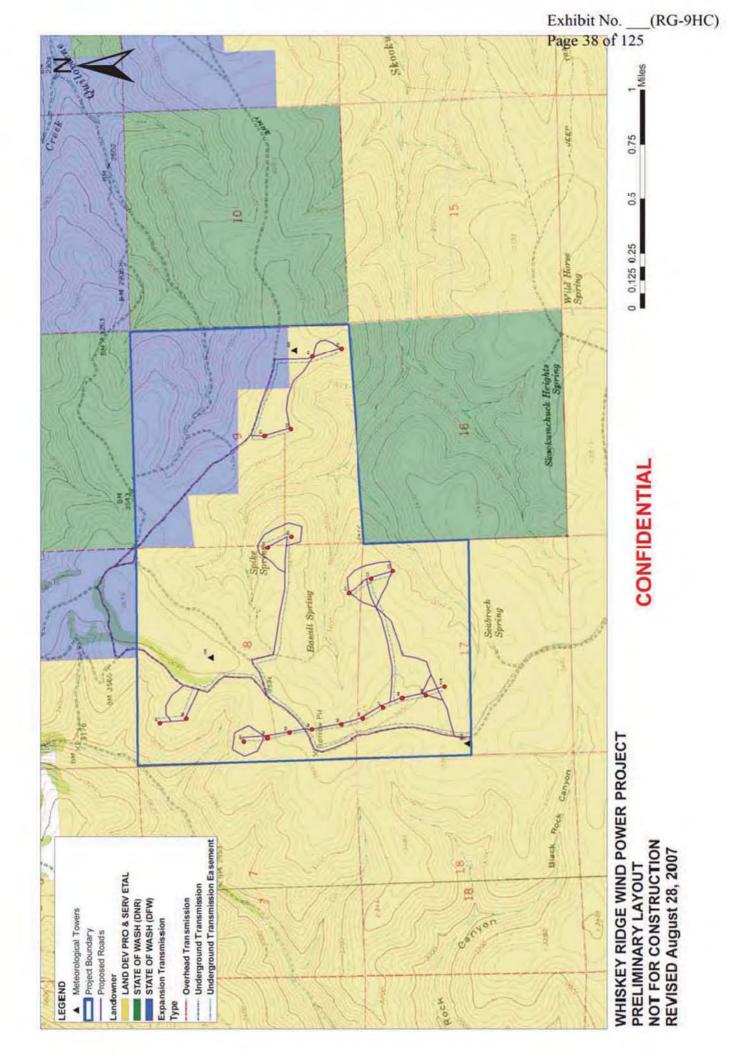


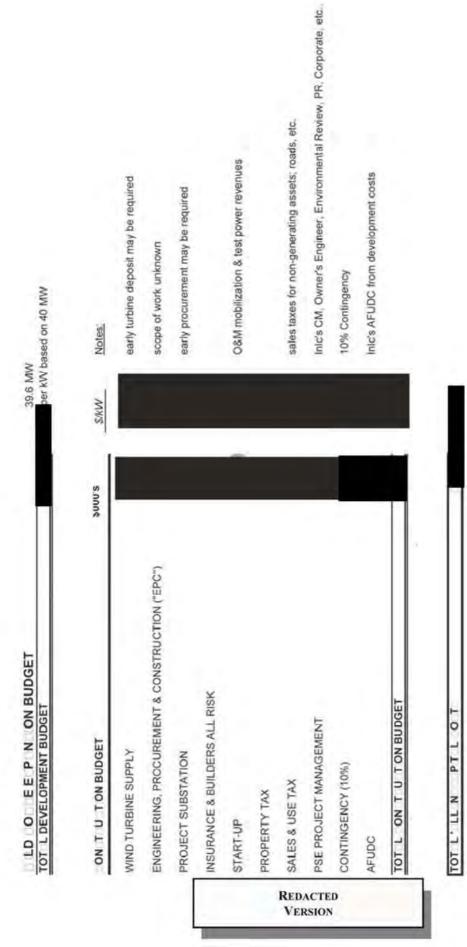
Exhibit No. (RG-9HC)



Property of Puget Sound Energy 355 110th Ave. NE. Bellevue, WA. 9800-6 Maps. Records and Technology. Date (0 1-28-08 Drawn By: Bob Forbes

Wild Horse - Cabins





	AREA	O	DUE DILIGENCE FINDINGS	RI	RISK ASSESSMENT
	Business / Commercial		Project ownership opportunity Savings on developer fee premium Synergies with Wild Horse Simple transaction; good counterparty PSE controls development and construction PSE will not be required to provide credit support		Low risks involved in commercial transaction Increase risk by moving up the development chain Risk are identifiable and can be mitigated Experienced project development team Impact on Wild Horse – wake effect PSE Credit is still analyzing Horizon; analysis so far
			PSE seeks a parent guarantee from A- rated Energias de Portugal, S.A. A guarantee from Horizon Wind Energy, LLC has been offered	26	indicates Horizon is a low sub-investment grade credit, probably around "B-"
	Economic Analysis		Portfolio benefit to cost ratio in the mid-range of current resource alternatives Significant escalation in wind capital costs projected	•	Reductions in capacity factor reduce project economics
	Wind Energy Resource	• •	reported P50 net capacity factor (V80) based on preliminary review; due to differences in predicated mean wind speed and estimated energy losses to adjust gross energy	• •	Lower net capacity factor included in economics Performing detailed wind energy resource assessment and will incorporate additional data/findings from Wild Horse
REDACTED	Transmission Interconnection	• • • •	Interconnect to existing Wild Horse substation System Impact Study complete Horizon needs to execute Facilities Study and assign to PSE to reserve place in queue Sizing of transformer is being analyzed to add redundancy for both Wild Horse & Whiskey Ridge	•	Transformer will require early procurement in order to meet 4Q 2009 COD
-	Transmission Service		Transmission requires flow to east to BPA-Vantage on to Mid-C PSE 40 MW request to BPA via GCPUD Existing PSE Transfer Agreement with GCPUD will increase to 280 MW BPA has notified GCPUD approving increase Wheeling back from Mid-C requires PSE's existing Cross-Cascades rights		GCPUD approval pending BPA wheel included in economics Potential value in transmission rights when not in use
	Real Estate		Real estate purchase option expires Feb 16, 2008 Purchase option price S ALTA survey and title report review Proposed layout requires access easement from WDFW		Value of land if no permit Reduce size of project by four turbines with no WDFW access Rights of mineral holder Awaiting results of environmental assessment on the property

AREA	DUE DI	DUE DILIGENCE FINDINGS	RIS	RISK ASSESSMENT
Environmental	• Imp	Important site studies are complete Phase I Environmental Site assessment to be completed		Risk of appeal is relatively low but is always present. Based on past use of the site adverse findings in the
	• Proj	Project lies in county wind overlay zone		Main stakeholders that need to be managed include
	Proj Hors EIS.	Project will be permitted through amendment to Wild Horse EFSEC SCA and preparation of a Supplemental EIS.		Friends of Wildlife and Wind Power (Robert Kruse) and local Audubon. Expect requirement to locate underground cables in or
	• Red Agr Con	Requires amendment to County Development Agreement which will require action by the Board of Commissioners. Will occur in parallel with EFSEC	•	adjacent to roads to minimize footprint. WDFW likely will want public access through the site. We allow access now.
	• Exp	process. Expect nine months once amendment is filed to receive approval from EFSEC		
	Mai foot	Main issues for WDFW include public access and footprint of project		
Community Relations	• Ider	Identified minimal opposition		Friends of Wildlife and Wind power will continue to be
	• Cor	Community supporters for Wild Horse would be supportive of the expansion		a watchdog group. May try to restrict access which is contrary to most other interest groups.
	• Incl Dev	Includes Kittitas School District, Economic Development Group of Kittitas County,		Deploy PSE's "Wind Communications Strategy" Project is closer to seasonal cabins; setbacks would still
	• Pos	Positive comments from County planning staff toward the idea of an expansion, the project falls in the		be in excess of the EFSEC or County guidelines. Improved Access will be a net benefit for these cabin
	• Cor	Commissioner approved overlay zone. Hunting / Recreation users have been satisfied with		owners.
Regulatory	All cos advice	All costs currently being capitalized per accounting advice	•	If project proceeds, preliminary survey costs capitalized
	Rate Ireal	Rates department drafting accounting petition for treating external costs as preliminary survey FERC	•	If project cancelled, preliminary survey costs amortized in rates
	Acc	Account #183	•	If accounting petition denied and project cancelled, costs expensed and may or may not be recovered in rates
Financing	• Proc	Production Tax Credit appetite adequate based on PSE 2007 Business Plan Update forecast of income and		2008 House Economic Stimulus Agreement contains bonus depreciation that would eliminate PTC appetite.
	taxes.	.s.	•	Alternative tax equity financing may be needed.



MEMORANDUM

DATE: January 30, 2008

TO: Roger Garratt

Chris Bevil

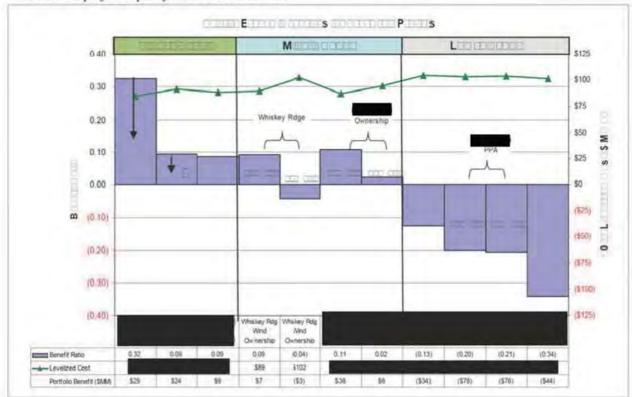
FROM: Aliza Seelig, Cara Gudger, Jim Elsea

SUBJECT: Wild Horse Expansion Preliminary Economic Findings

PSE is considering the expansion of the Wild Horse Wind project by acquiring development rights and land assets for Horizon's Whiskey Ridge Wind project in Kittitas County. In preparation for the decision to acquire the development project, the Resource Acquisition analytic team conducted PSM analyses to identify relative economic rankings of the Wild Horse Expansion Project in relation to the other renewable proposals that Resource Acquisition is either actively negotiating or analyzing. The current PSM model uses resource assumptions consistent with the company's 2007 IRP. The following represent the key preliminary conclusions:

Key Findings

- Wild Horse Expansion ranks in the middle range of renewable projects.
- Two higher range proposals do not have firm prices and these project benefits are likely to erode.
- Changes in capacity factor resulting from wind resource analysis and final turbine selection and siting affect the project capacity factor and economics.



REDACTED VERSION

Ranking: When compared to seven other proposals, the Wild Horse Expansion project economics ranked among the middle range projects. All projects fall into three ranges: high, middle and low. The high range designates those projects that at the time of the analysis are clearly economic in both the portfolio benefit and the benefit ratios. The middle range is reserved for those proposals that are sensitive to various economic attributes, such as capital cost or capacity factor. Project economics here are either slightly better than break even analysis when compared to generic resource costs or close to the break even point. Finally, projects in the low range are distinguished by negative portfolio benefit and benefit ratios. Although projects may have a positive benefit or a negative benefit in this analysis, it is the relative rankings of projects that are most significant, as model assumptions are updated, the level of portfolio benefit for all projects will change.

Negotiation Update: Resource Acquisition is actively pursuing all projects that are ranked in the high and middle ranges. However, negotiations for the PPA and PPA are proving to be difficult and may not be executable at the prices analyzed.

Capacity Factor Sensitivity: The two projects in the middle range — Wild Horse Expansion and illustrate how uncertainties in wind project net capacity factors affect the economics. A thorough wind resource analysis conducted by RAM & Associates predicts that the Wild Horse Expansion capacity factor will be approximately — PSE asked GEC to briefly review the analysis. This second-opinion is important as developed wind projects in the region are currently experiencing lower P50 capacity factors than originally forecasted. As a result, GEC uses higher wind loss factors than other consultants and recommended that PSE use a capacity factor of approximately — GEC is currently conducting a more thorough analysis and will respond shortly. PSE would also like second opinion on the — capacity factor, similar to the Wild Horse Expansion. In the meantime, we decided to use a capacity factor GEC forecasted for during its 2005 RFP Wind Resource Study. However, until final turbine selections and sitings are made and wind resource analyses are completed, project economics will fluctuate to a degree.

Project Benefits and Risks

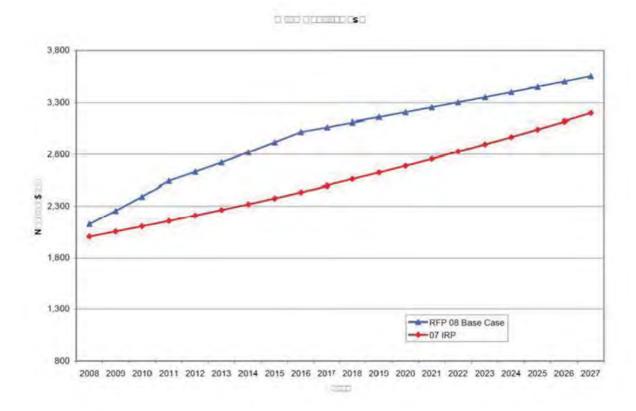
The analytic team recommends the pursuit of projects with rankings in both the high in middle range. The following table discusses the pros and cons associated with each project.

P	B 5	s	P⊤s	s
	Higher	Active Negotiations	Attractive price, baseload or seasonal renewable resource	Small developer, credit terms, liquidated damage terms, uncertain COD, resource risk (Unit 3 of Project), complicated transmission solution
	Higher	Halted Negotiations	Attractive price, baseload renewable resource	Difficult negotiations, price has increased through negotions
	Higher	Active Negotiations	Attractive price, wind ownership opportunity, PSE controls development chain	Some community opposition
Whiskey Ridge Own	Middle	Negotiations Complete	Attractive price, wind ownership opportunity, PSE controls development chain	Lower capacity factor
	Middle	Proposal presented	Wind ownership opportunity, turnkey project	Higher capital cost: ~5 KW
	Lower	Proposal presented	Renevable energy PPA, Connects to PSE system and reduces transmission cost	High PPA price. Price has escalated as a result of community opposition and losing spot for 2008 turbines
	Lower	Proposal presented	Renewable energy PPA, good capacity factor	High PPA price
	Lower	Proposal presented	Renewable energy PPA, good capacity factor	Shorter PPA length, High PPA price
	Not included	Indicative Offer	Wind Ownership opportunity, turnkey project, good capacity factor and wind shape	N s ss s

Next Steps

- Update Portfolio Screening Model for 2008 RFP assumptions
- Monitor project economics
- · Continue to pursue economic projects

The Resource Planning and Acquisition teams are in the process of updating PSM assumptions for the 2008 RFP. One update to PSM for the RFP incorporates new wind and combined cycle capital cost assumptions. After the IRP, the team hired ION consulting to provide a forecast of capital costs for wind plants and combined cycle gas plants because recent wind bids were showing rapidly escalating wind project costs. The chart below compares ION's wind capital cost forecast with the 2007 IRP capital cost assumptions. We expect that the change in the assumptions will not affect the relative rankings of the proposals show above. However, it is likely that the level of portfolio benefit will change. Additionally, the team will continue to monitor the Wild Horse Expansion project economics against proposals from the RFP.





MEMORANDUM

EVALUATION GROUP: Environmental / Permitting
DATE: January 30, 2008

Section 1: Summary of Findings for Area of Review

This memo summarizes the permitting strategy and prospects for the Wild Horse Expansion (aka, Whiskey Ridge) project. PSE proposes to undertake permitting of the project. Most important site studies have been completed, and there doesn't appear to be any insurmountable opposition. Nevertheless, there is a chance that the permits could (a) not be issued or (b) be appealed.

It is proposed to permit the project as an expansion of Wild Horse. The process, therefore, would be to amend the existing site certificate issued for Wild Horse by EFSEC. This process would be similar in steps required to those for the Wild Horse project. A contested case hearing results in a recommendation from the EFSEC Council to the Governor. Preparation of a Supplemental EIS also would be required. Much of the background information completed for Wild Horse would be applicable to this project. One difference in the process is that EFSEC now allows completion of the EIS by the applicant's consultant and it will be completed prior to the adjudication. This is a better and likely less expensive option than was undertaken for Wild Horse where the EIS was completed by EFSEC's consultant and wasn't finalized until after the recommendation.

An amendment to the Development Agreement entered into with Kittitas County would be required. The County has passed an overlay encouraging wind in the eastern part of the County, which includes Wild Horse and the expansion site. The County has indicated in preliminary discussions that amendment of the agreement should not be problematic from their perspective. The process would be to have preliminary discussions with County staff to reach agreement on the content of the amended agreement. Then the amendment will be placed on the schedule with the Board of County Commissioners. This should be done as early as possible in the permit process. Conditions of the amended agreement are expected to be very similar to the terms of the existing agreement.

It is expected that permitting would take approximately nine months to complete from the time of submittal assuming no appeals.

Section 2: Stakeholders

The primary stakeholders are listed below. These are the parties who could most likely either make permitting the project more burdensome and/or appeal the permit once issued.

Washington State Department of Fish and Wildlife. The expansion site and Wild Horse are primarily shrub steppe habitat, which is State Priority Habitat. WDFW is therefore very concerned about the amount of disturbance created by the projects. We should expect to be required to place underground cables adjacent to roads and to take other measures to minimize the footprint of the projects. Sage grouse are a State threatened species that has recently been discovered nesting on the Wild Horse site. We have met with WDFW on this issue and are preparing additional information on sager grouse use of the site.

WDFW also now owns most of the surrounding land around the expansion site. They will most likely have an interest in expanding public access to these areas through the Wild horse site and the expansion site. A State Green Dot Road (public access road) runs through a portion of the site (see Real Estate discussion). A public process for access to these lands is to begin shortly. We intend to participate in this process.

We have a meeting scheduled with WDFW staff on February 12th to discuss all of their interests in the project. We intend to leverage the very positive relationship developed through the Wild Horse project to work through issues on the expansion.

<u>Friends of Wildlife and Wind Power (Robert Kruse)</u>. Mr. Kruse's family owns property near the Columbia River east of the project. His group was an intervener in the EFSEC proceeding for the Wild Horse project. Horizon settled with the group. The settlement agreement was inherited by PSE when we closed on the project. Mr. Kruse has continued to be very active in the Technical Advisory Committee and other activities at Wild Horse. His primary interests seem to be related to minimizing public use of the lands north of the Renewable Energy Center

This past summer, Mr. Kruse sent letters to a wide ranging group indicating his belief that PSE was not intending to honor our commitment to put a conservation easement in place on the Wild Horse site. The letters resulted in discussion about our progress on the easement at an EFSEC Council meeting. PSE is currently working with WDFW on the easement and he has not intervened since. Mr. Kruse has engaged land use attorney David Bricklin.

The strategy for Mr. Kruse is to engage him in the WDFW public access process and for PSE to reach early agreement with WDFW on issues of concern to them. Absent WDFW support, Mr. Kruse has limited effectiveness.

<u>Audubon Society</u>. Members of the Kittitas County Chapter have opposed all wind projects in the County including Wild Horse. The local chapter is divided on support for wind farms. The State office has been generally supportive of wind energy in areas that are not considered important bird areas. We intend to leverage our contacts with the State office to minimize the local chapter.



MEMO | NDUM

TO: Wild Horse Expansion File	EVALUATION GROUP: Real Estate	
FROM: Kurt Krebs	DATE: January 30, 2008	

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The Whiskey Ridge project will be constructed on approximately 1400 acres of land that will be purchased and owned by Puget Sound Energy. The purchase price is All purchased lands are contiguous to each other and/or existing property owned by PSE as part of the Wild Horse wind project. The property is burdened with various exceptions to title, however, none of the exceptions, except for an existing Surface Use Agreement, as discussed below, are deemed to be problematic for PSE's intended use. An ALTA survey of the Whiskey Ridge property has been completed and reviewed by PSE. As a result of the lack of previous survey records in this area along with existing snow levels, the surveyor was not able to verify the northeast corner of one section of land. While future survey work may be commissioned to verify property dimensions within Section 9, no adverse impacts to PSE's intended planning or ultimate use are anticipated.

S SS SS

Access to the eastern portion of the proposed wind project and turbine locations was intended to be via an existing road on lands owned by the Washington State Department of Fish and Wildlife (WDFW). Additional investigations, however, determined that the acquisition of the necessary access easement rights over WDFW would require both state and federal approvals; such process and required approvals could take in excess of one year to finalize. Significant topographical challenges limit alternative access routes. Project development decisions will need to be made and will dictate decision making on gaining access to the eastern portions of the project and turbine development. Additionally, oil, gas and mineral rights have been conveyed to a limited partnership identified as SWEPI, LP. While the granted rights set forth limiting conditions so as to not interfere with the proposed wind project, the entity is authorized to, among other things, construct employee housing and other building structures subject to setback requirements (500' from existing turbines, 100' from electrical, communication or transmission facilities. According to Horizon, no pursuit of the oil, gas or minerals have been made to date. Finally, the phase I environmental assessment related to the property proposed to be purchased by PSE will be available for review by Feb. 1, 2008. No detrimental findings are expected but a review of the report remains as an outstanding issue.

M N s

Scheduling of the proposed property closing schedule and mechanics are currently being finalized. Confirmation of the title company's willingness to issue the requested title policy, based on the recently finalized ALTA survey, remains as an issue that needs to be resolved. The closing of the real estate portion of the Whiskey Ridge project is on trace for successful completion with the time frames set forth in the Option and Real Estate Purchase and Sale Agreement.



MEMORANDUM

EVALUATION GROUP: Merchant Transmission
DATE: January 17, 2008

Summary of Findings: Interconnection

Overview: The 40 MW project will interconnect to the existing Wild Horse substation at 230 kV. A new substation will be built adjacent to the Wild Horse sub. A 45 MVA transformer will used to step-up the two 34.5 kV feeder circuits to 230 kV. The 34.5 kV bus will have both a main and aux tie to the Wild Horse 34.5 kV bus. The main tie allows the project to continue operation if the transformer is out of service, and the aux tie enables the turbines to be back fed in the event of a T-line outage. Control system and protocol will utilize the existing control house and Vestas Online SCADA. Pending the harmonics study, two 6 MVAR capacitor banks will provide voltage support and be controlled by the Wild Horse DVAR system.

Contracts: Horizon currently has a 40 MW interconnection request with Puget Transmission, GI #5, for this project. Puget's Resource Integration department is working with both Puget Transmission and Horizon on this request to ensure that the assumptions for the Interconnection Facility study are correct and utilize existing Puget equipment. The interconnection request will be assigned to Puget per the Asset Purchase Agreement.

Summary of Findings: Transmission

Overview: The existing 230 kV Wild Horse – Wind Ridge transmission line has sufficient capacity to support the output of both Wild Horse and Whiskey Ridge. Puget Network Transmission carries the power from Wild Horse to Wind Ridge, and then East to GPUD's Wanapum Switchyard, transferring across to BPA's Vantage substation on the MID-C. Power does not flow West of Wind Ridge substation due to constraints on the small 115 kV IP line. BPA transmission is utilized to deliver the power from Vantage across the Cascades to Puget's system.

Contracts: Puget Merchant has request from Puget Transmission 40 MW of network transmission from Wild Horse to BPA's Vantage Substation. This request is expected to be granted. GPUD is increasing Puget's Transfer Agreement to 284 (280?) MW across the Wanapum Switchyard. This allows for the net output of both wind projects plus an additional 14 (10?) MW for infill projects. BPA has sent a letter of approval for GPUD to increase the Transfer Agreement, contingent that this project will participate in Dispatchers' Standing Order (DSO) No. 342, to maintain system conditions within acceptable reliability limits. DSO No. 342 is an interim operating procedure to be used by BPA, PSE and GCPUD until the transmission system is sufficiently reinforced. Transmission reinforcements include rebuilding 9 miles of the Vantage-Midway 230 kV line, expected to be completed by 2011.

Wheeling the power from the MID-C back to Puget's system will utilize existing 650 MW Cross-Cascades transmission rights, and an additional 150 MW PTP firm transmission has been requested from BPA.



TO: Wild Horse Expansion File	EVALUATION GROUP: Community Relation
FROM. Brian Lenz	DATE: 2/28/2008

Section 1: Summary of Findings for Area of Review

Community Relations issues for this project appear to minimal. Support continues for the Wild Horse project in general. The majority of community groups that supported the original project will support the expansion. Tax benefits are appearing in April 2008 and the Kittitas School District has been extoling the virtures of the project and hoping for more. In interviewing the County planning director the proposal was well received in concept, since it falls in the Commissioner approved wind overlay zone. Minimal opposition has been identified, same groups to those who opposed or intervined in the original application are expected to again.

Section 2: Risk Assessment

Key issue with the opposition group friends of Wind and Wildlife, WDFW and the seasonal cabin owners will be the access to the area on PSE roads some groups wanting more and some less access allowed. PSE has had good results this season with most public users of the site.

Section 3: Mitigation/Next Steps

Implement the PSE Wind Communication Plan Formalize announcement of the project Begin meeting with the stakeholders Utilize the Renewable Energy Center for stakeholder meetings



TO: Wild Horse Expansion File	EVALUATION GROUP: Constructability
FROM: Brian Doughty	DATE: January 29, 2008 (Rev. B)

Section 1: Discussion Points Overview

The Wild Horse Expansion project will benefit from integration into existing infrastructure, and the existing adjacent PSE O&M facilities. In the "big picture" this expansion of Wild Horse is literally that, and therefore eminently possible. However each site brings with it specific issues and challenges which must be examined and budgeted before deciding to proceed. The observations provided below are intended only to ensure these items are considered.

Section 2: Substation

- 1) The project substation has been conceived as a single bay, constructed just west of the existing Wild Horse Substation. This land was cleared, graded and graveled for use as storage and laydown and so was previously disturbed under the Wild Horse construction project. Conventional pad foundations will be adequate to support the equipment.
- 2) In order to export the power from 20 Vestas V-60 machines the 34,5/230kV transformer should be approx. 27/35/45 MVA. The existing transformers at Wild Horse are rated 78/104/130 MVA indicating that full output is only achieved when both sets of fans are operating. The current indications are that a 27/35/45 MVA transformer will cost about \$ MM and have a lead time of 16-18 months. The estimated cost of the Wild Horse Expansion Substation based on preliminary information is \$3.9MM.
- 3) In order to have the Wild Horse Expansion transformer installed and able to supply back feed power to support turbine commissioning in 3rd QTR 2009 the transformer needs to be ordered 1st QTR 2008.
- 4) The existing Wild Horse transformers are not a class that PSE carries elsewhere within its system and therefore no spares exist. In the event of a major failure 50% of Wild Horse could be off-line for more the 16-18 months replacement time. If the Wild Horse Expansion transformer were sized identical to the existing Wild Horse units, then under a worst case scenario, the Wild Horse Expansion transformer could be utilized to replace a failed Wild Horse transformer, thus reducing the potential lost generation from 120 MW to 40 MW. There would also be commonality in spare parts.
- 5) The additional cost of buying a larger transformer than required for Wild Horse Expansion would have to be considered, but lead time would be about the same.
- The Wild Horse Expansion Substation should be designed so that it is connected to the Wild Horse Substation by bus work at both 230kV and 34.5kV levels, with appropriate disconnect switches. If transmission voltage is lost for an extended period, emergency generation at 34.5kV to backfeed the V-80 units at Wild Horse could also supply the Wild Horse Expansion units.
- 7) PSE Communications has indicated that there is sufficient space within the existing racks in the Control Building so we don't need a separate Control Building, although we may need weatherproof external marshalling cabinets.

Section 3: Electrical Collection System

- 8) The two circuits that are currently shown as being installed along the western side of the disturbed area along the Jeep Road through the Pines area will be problematic in terms of securing agreement from WDFW. Under the Wild Horse project we installed three (3) circuits to the west of this road and four (4) circuits to the east at an average spacing of 20 ft between circuits. This was an area of great concern for WDFW previously and they will resist any further areas of disturbance within the Wild Horse site boundary.
- 9) We can address this WDFW concern by installing the two Wild Horse Expansion circuits within the existing road width for the section of road within the Wild Horse site boundary. This has logistic implications and requires early procurement of cable to be able to install it before equipment deliveries commence. We also need to pick a weather window as this section of road is susceptible to moisture. In addition this requires coordination with Wild Horse Operations as road access to turbines in Rows M, N, O, E, F, D, J, G, H and I would be disrupted for a period of time.
- 10) We do not want an agreement to install collection system cables in the road through the Pines area to be applied generally throughout the Wild Horse Expansion development. In general we expect to install cable alongside access roads.

Section 4: Roads

- 11) The early road layout documents provided by Horizon have a number of shortcomings. Firstly roads in Section 9 cross areas of WDFW land for which no easement or access provisions have been negotiated. PSE Real Estate indicates it could take a year or more to get a decision out of WDFW and it is by no means certain that they would grant the required access provisions. We can either abandon turbines E1, E2, F1 and F2 and avoid the road issue, or design a new a more difficult road layout that remains wholly within the PSE purchased land. Such a revise road layout would cling to the sides of steep hills similar to the existing Jeep Road between the REC and the Wild Horse Substation. Because of the steep gradients on either side of the road we will be forced to locate the underground cables serving these four turbines under the road, creating schedule and access considerations. Possible to construct certainly as we showed with the Jeep Road, but a major scar and impact on the landscape.
- 12) The Horizon road layout also extends beyond the northern boundary of Section 8 into areas for which no lease, easement or access provisions have been negotiated. This road layout will need to be changed to stay within the Section 8 boundaries. No particular difficulties are associated with this change.
- 13) The Real Estate deal includes a surface land agreement that requires further examination but could prevent PSE from opening up local quarry areas to mine and crush aggregate for road building. This agreement apparently does not apply to Section 8, so it may be possible to avoid this limitation if suitable aggregates can be mined from Section 8 and permits granted to locate a crushing and screening plant in that area. At this time we have no geotechnical information to know whether or not a suitable quarry site can be found in Section 8. A site batch plant would not suffer from this same limitation because imported aggregates will be used for structural concrete. Section 8 is bounded to the north and west by several smaller land parcels several of which are understood to have cabins. Initial indications are the nearest cabin may be 0.85 miles away from the project, so fugitive dust and visible intrusions may be an issue.

Section 5: Proposed Meta Property Purchase

- 14) The narrow strip of Metta land across Section 15 is not suitable for expansion of Turbine rows "G" and "H". Turbine GI is located at approximate elevation 3175 ft and is already on the edge of a very steep slope to the north. The road accessing location G1 is already at the 12% maximum gradient that the heavy haul equipment can negotiate. There is no practical location further north for another turbine. Turbine H1 is in a similar situation on the edge of a steep slope with the access road already at a 12% gradient. The slope increases in steepness as you move north into this Metta land. If this strip of land has to be part of the "deal" then maybe it can be used for some environmental or conservation purpose at a later date.
- 15) The portion of Metta property adjacent to the SE comer of Section 23 is adjacent to "Restricted Area #1" understood to be of Religious/Cultural significance to Native Americans. A detailed survey would be required to determine if locating a turbine in this area, or using this area to access a turbine sited on the Wild Horse property is feasible. This area was not studied as part of the lithic analysis conducted for Wild Horse and therefore it would be unwise to assume we can site a turbine in that area. If this strip of land has to be part of the "deal" then maybe it can be used for some environmental or conservation purpose at a later date.



MEMORANDUM

Date: July 17, 2007

To: Scott Williams

Christine Philipps

From: Cathy Yu

Re: Accounting for Wind Power Project Development Costs

This memo addresses the accounting treatment for development costs for a wind power project that PSE is expected to develop. These development costs are categorized in five phases: prospecting, site acquisition, detailed site feasibility permitting, and construction. Costs include direct expenses such as consulting fees, legal fees, and equipment costs as well as indirect expenses such as PSE's staff time spent on the project. Costs incurred before the construction phase are at risk as a project may not proceed to construction, either because the wind resource is not adequate or because a permit cannot be obtained.

Authoritative Guidance

Generally Accepted Accounting Principles (GAAP) literature generally does not support capitalizing preliminary investigation pre-acquisition or due diligence costs when researching new capital asset additions. Capitalization creates an asset, and FASB Concept Statement No. 7 Paragraph 172 states:

"Future economic benefit is the essence of an assetAn asset has the capacity to serve the entity by being exchanged for something else of value to the entity, by being used to produce something of value to the entity, or by being used to settle its liabilities."

Pre-acquisition costs related to real estate project might be capitalized if certain criteria are met. SFAS No. 67 (SFAS 67), Accounting for Costs and Initial Rental Operations of Real Estate Projects, define pre-acquisition costs as "costs related to a property that are incurred for the express purpose of, but prior to, obtaining that property." Examples of pre-acquisitions costs may be costs of surveying, zoning or traffic studies, or payments to obtain an option on the property.

SFAS 67, paragraph 4, states that pre-acquisition costs shall be capitalized if all of the following conditions are met and otherwise shall be charged to expense as incurred:

- The costs are directly identifiable with the specific property.
- b. The costs would be capitalized if the property were already acquired.

c. Acquisition of the property or of an option to acquire the property is probable.

SFAS 67 requires that, except for purchase options, no costs can be capitalized that are incurred before the acquisition of the property becomes "probable". Capitalized preacquisition costs shall be included as project costs upon the acquisition of the property or shall be charged to expense when it is probable that the property will not be acquired (SFAS 67, paragraph 5).

EITF 97-11 provides accounting for internal costs for identifying and acquiring real estate projects. EITF 97-11 states that *internal costs of pre-acquisition activities* incurred in connection with the acquisition of a property that will be classified as non-operating at the date of acquisition that are *directly identifiable* with the acquired property and that were incurred subsequent to the time that acquisition of that specific property was considered *probable* should be capitalized as part of the cost of that acquisition.

AICPA's Statement of Position (SOP) 98-5, Reporting on the Costs of Start-Up Activities, requires that costs of start-up activities, including organization costs, be expensed as incurred. Conclusion in the SOP are based in part on the fact that start-up costs are not specifically identifiable as assets, have indeterminate lives, are inherent in a continuing business, and are related to an enterprise as a whole. Start-up are defined broadly in the SOP as those one-time activities related to, for instance, opening a new facility, or commencing some new operation. The SOP specifies that costs of acquiring or constructing long-lived assets and getting them ready for their intended uses are excluded. As the Wind Project is a long-lived asset, thus, SOP 98-5 does not apply.

Costs Associated With the Wind Development Project

Prospecting Stage

This stage includes the location of potential sites. Activities include researching wind potential, potential transmission solutions, and likelihood of successful permitting, property ownership, building relationships with land owners, and visiting sites. Costs include expenses such as travel, consultant fees for preliminary wind resource assessments, and internal costs such as time spent on the project by Resource Acquisition/Resource Integration/Real Estate/Community Relations staff.

Costs incurred in this stage <u>should be expensed</u> as this stage involves researching potential sites and thus costs fail to meet the "directly identifiable" and "acquisition of the property is probable" conditions for capitalizing per SFAS No. 67, paragraph 4.

Site Acquisition

If the wind resource, transmission, and permitting are promising, and landowners are willing, the next step is to tie up the land in the form of leases. These leases typically include signing fees and minimum rent payments.

Costs incurred in this stage include direct costs such as legal fees for preparation and review of leases, survey and title work, travel and signing fees and rent. Costs also include PSE staff time spent on the project.

We should assess whether the project is probable in terms of obtaining board approval, obtaining leases and permit, and obtaining resources for the project. After we have determined that the project is probable, direct costs incurred in this stage shall be capitalized, except for lease payments for land or buildings, as they meet the three conditions for capitalizing per SFAS No. 67. Internal costs shall also be capitalized per EITF 97-11, if the construction of the project is probable. Note however, that the capitalized costs should be expensed if it is no longer probable that the property will be acquired.

Accounting for lease payments would depend on whether the lease is an operating lease or capital lease based on the criteria set in SFAS No. 13, paragraph 7. The four criteria are:

- * automatic transfer of title
- bargain purchase option
- lease term equals or exceeds 75% of remaining estimated economic life of leased property
- * present value of minimum lease payments equals or exceeds 90% of the excess of fair value of fair value of leased property over any related investment tax credit retained by the lessor

If the lease meets any of the above criteria, the lease should be considered a capital lease. Otherwise, the lease is an operating lease, and FSP FAS 13-1, Accounting for Rental Costs Incurred during a Construction Period, would apply. Note: FSP 13-1 does not address rental costs other than those associated with building and ground operating leases.

Per FSP 13-1, paragraph 6: "There is no distinction between the right to use a leased asset during the construction period and the right to use that asset after the construction period. Therefore, rental costs associated with ground or building operating leases that are incurred during a construction period shall be recognized as rental expense."

Thus, lease payment incurred in this stage should be expensed for an operating lease, or capitalized for a capital lease.

Detailed Site Feasibility

Wind projects generally require at least one full year of on-site wind data. This stage includes preliminary feasibility and environmental studies, as well as transmission and interconnection studies.

Direct costs in this stage include consultant and contractor time to erect towers, monitor and interpret wind data, complete environmental studies and travel. Direct costs also include fees and deposits associated with transmission and interconnection applications and studies. Internal costs include PSE staff time spent on the project.

Assuming that the project is determined to be probable, direct costs incurred in this stage shall be capitalized, except for lease payments for land or buildings, as they meet the three conditions for capitalizing per SFAS No. 67. Internal costs shall also be capitalized

per EITF 97-11. Note however, that the capitalized costs should be expensed if it is no longer probable that the property will be acquired.

Lease payments incurred in this stage should either be expensed (for an operating lease), or capitalized (for a capital lease).

Permitting

This stage involves co-ordination with appropriate authorities, completion of site and environmental studies, preliminary engineering, preparation and submittal of the applications, attending hearings, community relations and corporate communications.

Direct costs include consultant fees for site studies, preliminary engineering, legal fees, travel, and printing/publication costs. Internal costs include PSE staff time spent on the project.

Direct costs incurred in this stage <u>shall be capitalized</u>, except for lease payments for land or buildings, as they meet the three conditions for capitalizing per SFAS No. 67. Internal costs that are directly identifiable with the project shall also be capitalized per EITF 97-11. Note however, that the capitalized costs should be expensed if it is no longer probable that the property will be acquired.

Lease payments incurred in this stage should either be expensed (for an operating lease), or capitalized (for a capital lease).

Construction

This stage involves preparation of final design and construction plans, purchase of turbines and other equipment, construction of balance of plant (roads, electrical, etc.) and turbine erection and start-up.

Direct costs includes consultant fees for final engineering design and construction plans, equipment costs for turbines, substation equipment, etc., and construction fees for balance of plant work. Internal costs include PSE staff time spent on the project.

Direct costs incurred in this stage shall be capitalized, except for lease payments for land or buildings. Internal costs associated with the project shall also be capitalized.

Lease payments incurred in this stage should either be expensed (for an operating lease), or capitalized (for a capital lease).

Ce: Mike Stranik Natalie Hayashi

Exhibit No. ___(RG-9HC) Page 59 of 125

> PSE PUGET SOUND ENERGY The energy to do great things

Wind Farm Value Chain



RESOURCE ACQUISITION UPDATE January 17, 2008

Roger Garratt Director, Resource Acquisition & Emerging Technologies

2007 Resource Acquisition Accomplishments

Completed

				Г	
Status	Complete	Complete	Complete	Complete	Complete
COD/Term	Mar-07	2008-2012	Dec-07	2009-Q1,2013	2009-Q1,2013
Offer	ownership	4-year PPA	20-year PPA	~4-year PPA	~4-year PPA
MW	277	150	20	909	75/25*
Owner /Developer	Calpine	Powerex	PPM Energy	Lehman	Sempra
Project	Goldendale	Winter On Peak Energy	Klondike III	Sumas Energy Replacement	Sumas Energy Replacement
Fuel	Natural Gas	System	Wind	System	System

*75 MW Q1, Q3 and Q4; 25 MW Q2

Agreements Complete

Fuel	Project	Owner /Developer	MW	Offer	COD/Term	Status
Natural Gas	Sumas Cogen	Sumas	133	Ownership	3Q-08	MIPSA executed
Wind	Hopkins Ridge Infill	PSE	7	Ownership	30-luC	Under construction



Ongoing Acquisition Opportunities

		0		REDACT			
Fuel	Biomass	Geothermal	Nat Gas	Wind	Wind	Wind	Wind
Project					Whiskey Ridge		Columbia / Garfield Cty. Joint Development
Owner /Developer					Horizon		RES
MW					44	02	009
Offer	20-year PPA	25-year PPA	Ownership	PPA	Ownership	Ownership	50% PPA / 50% Own
COD/Term	1-Oct-09	2010	2003	2009	2010	Dec-09	2010-2013
Status	PPA under negotiation	Term sheet under negotiation	Setting up senior-level meeting	Setting up senior-level meeting	APA under negotiation	APA and lease under negotiation	Term sheet under negotiation



PSE PUGET SOUND ENERGY
The energy to do great things

Active Renewable Opportunities

Whiskey Ridge Wind Project Development

Developer: Horizon Wind Energy

Kittitas County, WA North of Wild Horse Wind Project

Location:

Commercial Terms:

Purchase of Development Assets

Payment: \$

on closing per MWh Production Royalty

Real Estate: 1,400 acres; 1 landowner (AMLC)
Option expires 2/16/2008

REDACTED VERSION Interconnection: Wild Horse 230kV Substation Facilities Study near completion

Purchase Option Price \$

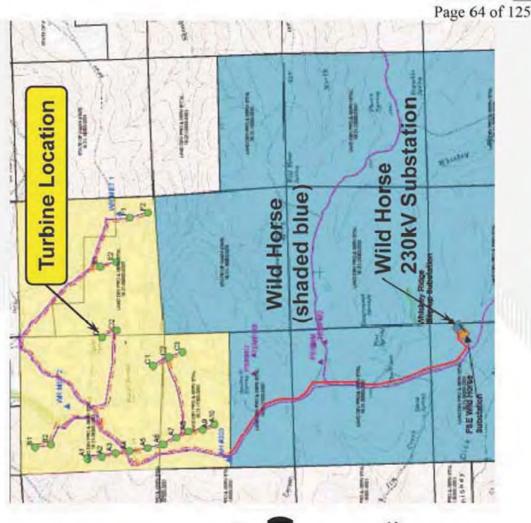
Amendment to Wild Horse EFSEC Key studies complete Expected 9 – 12 month process

Permitting:

21 turbine layout; ≈ 40 MW

Size:

Capacity Factor: ≈





(RG-9HC)

Exhibit No.

Wind Project Development

Strategy being developed Developer / Land Owner: Permitting/Community: Capacity Factor: ≈ Commercial Terms: Interconnection: Real Estate: Location: Size:

> REDACTED VERSION

Purchase of development assets

of gross revenues Tear 1-15 and Year 16-30 Payment: Reimbursement of dev Wind energy lease → **(PSE)** PUGET SOUND ENERGY The energy to do great things

Potential CCCT Opportunities

Biomass Cogeneration: Power Purchase Agreement

Transaction Summary:

100% of electrical output

and associated green attributes

Term:

20-year term

w/fuel price adjustment in Y10 & Y15

Delivery Point:

Project busbar

per MWh flat

Price:

Fuel:

Unit contingent capacity and energy

Product:

REDACTED VERSION

Expected Energy:

annual average MW

Guaranteed COD:

October 1, 2009

Next Actions:

Next commercial meeting scheduled for late December

Expected EMC approval January 2008



RES/PSE Joint Development - Eastern WA

Developer: RES America Developments, Inc.

Columbia and Garfield County, WA Location:

Adjacent to Hopkins Ridge

Joint Development Agreement Commercial Terms:

50% undivided interest in development assets payment on closing

REDACTED VERSION

50% share of external development expenses Each party responsible for internal expenses 50% ownership / 50% PPA >25,000 acres; ~ 100 landowners Real Estate:

Land leases in process of being executed

Interconnection: Requests in for 1,300 MW

@ BPA Little Goose 500kV Substation

Permitting/Community: Stratgey being developed



dentified Projects:

Tucannon ·Olyphant

(Columbia & Garfield Co.) (Columbia Co.) - 179 turbines 120 turbine

Garfiled Co. - 102 turbines

> Kuhl Ridge *Dutch Flat

Garfield Co. 100 turbines PSE PUGET SOUND ENERGY The energy to do great things

The energy to do great things

Wind Project: Power Purchase Agreement

Latest Project Updates:

Dec 7: Next hearing on EFSEC Appeals

Move to consolidate appeals

Move to send record to Supreme Court

turbine pricing for late 2008 delivery = Price increase due to new turbine delivery schedule per MWh flat Previous price offer = { New Vestas

per MWh flat



Power Plant

Location: Washington
Size: MW Combined Cycle Combustion Turbine
Commercial Operation Date:

REDACTED VERSION Owner:

Mint Farm Energy Center



Location: Longview, Washington

Size: 310 MW Combined Cycle Combustion Turbine

Commercial Operation Date: 12/31/07

Owner: Wayzata Investment Partners



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Whiskey Ridge Credit Risk Update EMC Informational Item

Chris Janak Manager, Risk Control & Credit

acquisition have been completed and are The credit terms of the Whiskey Ridge considered favorable by PSE Credit. **Key Point**

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Transaction Summary

Whiskey Ridge Power Partners, LLC

39.6 MW wind development project in Kittitas County, WA

Adjacent to Wild Horse Wind Project

Owned by Horizon Wind Energy, LLC, a subsidiary of Energias de Portugal, S.A. ("EDP")

Purchase Price

\$ paid at closing

of gross revenues for 30 years (§ MWh + per MWh production royalty for 20 years

escalation)

VERSION

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Wind Project

Acquisition of Development Rights

Energy Management Committee

REDACTED VERSION

March 20, 2008

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Chris Bevil Senior Project Manager

Recommendation to EMC

Approval to enter into Asset Purchase and Sale Agreement ("APA") with

development rights for a wind generation facility for an amount of acquire the which includes entering into a lease of the property as

the site for the facility.

REDACTED VERSION development budget to complete to construction notice to proceed activities

Approval of development ("NTP").

2

Key Commercial Terms of APA and Lease

- Purchase Price
- Reimbursement of
- development expenses; ≈
- Development Assets
- Three meteorological towers and equipment and meteorological data and studies
- Transmission interconnection studies and agreements
- Environmental studies
- All other related project files

- Term of Lease
- Development Term: 4 years + two 1 year extensions to achieve Commercial Operations
- Lease Term: 25 years + one 5 year extension
- Credit Assessment
- however, Based on review of financial statements combined internal rating of companies are small and \$ square than equity formula
- Estimate; actual costs will be updated before closing



Key Commercial Terms of APA and Lease

- Development Rent and Installation Fee
- per year until Commercial Operations
- per MW of installed capacity
- of Market Index Price Test Power:
- Royalty Payments
- Year 1 Year 15: Year 16 - Year 30:
- of Gross Revenues* of Gross Revenues*
 - *Gross Revenues = \$

REDACTED VERSION

- MWh escalating at
- Liability / Insurance Provisions
- million imited exposure to § PSE and
- PSE will insure its facilities for damages with a deductible of §

Unilateral right to termination at any time for any reason without liability



Note: Landowners typically receive 5% of gross revenues, thus developer royalty equates to \$2.50/MWh in first year

Lease Rights

- Operating Property (50 ft dia.)
- Incl's access roads & electrical conduit



Construction Area (300 ft dia.)

Temporary staging area



Access Rights

BPA Facilities

Permitting Plan

- Robust Environmental Impact Statement (EIS) with County as lead agency
- Settle issues with opposition parties
- Manage the process defensible EIS

Limitations / Risks

- Opposition groups
- County Comprehensive Plan and zoning code conflicts
- Critical Areas Ordinance (CAO) vests with WA Department of Fish & Wildlife (WDFW)

Mitigation Strategies

- Strong consulting team technical expertise and expert witness
- Build relationships with County / Agencies
- Resolve code conflicts
- Use community input to adapt project plan as appropriate

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Challenges

- Organized community opposition

Strategies: Tell the "True Story"

- Convey accurate visual impacts Communicate findings of EIS
- Create dialogue with community
- with a track record of wind projects that PSE is committed community partner, benefit local areas

- Citizens Advisory Board
- Public Open House Meetings
- On-site presence of PSE



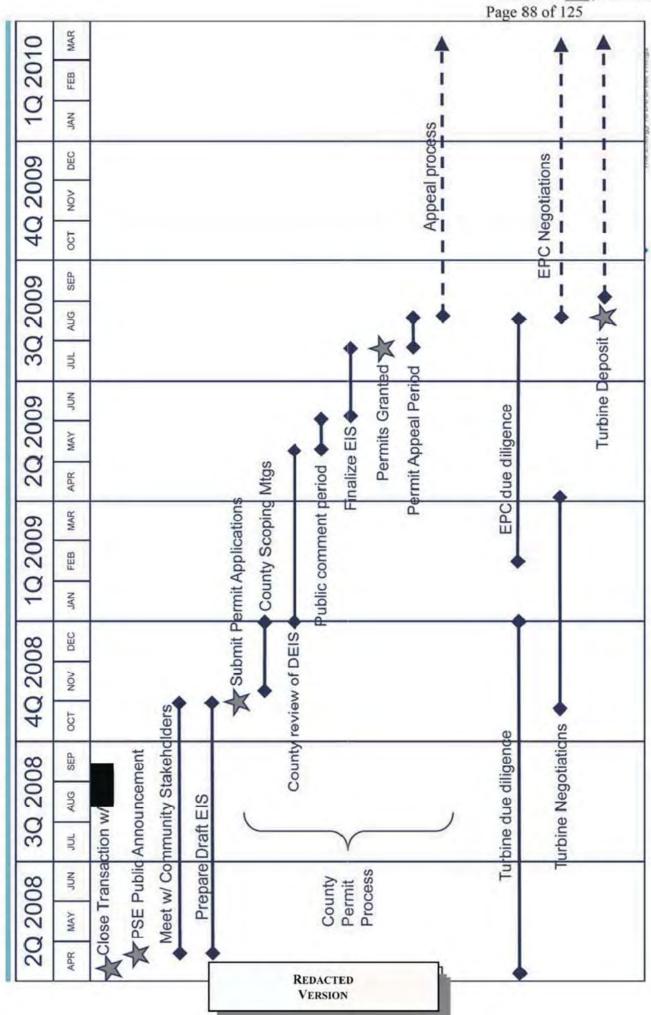


Exhibit No.

(RG-9HC)

Development Activities & Budget Estimate

- Asset Purchase Agreement:_
- PSE Development Costs:

COMMUNITY RELATIONS / COMMUNICATIONS PSE LABOR & EXPENSE - DEVELOPMENT TRANSMISSION INTERCONNECTION **ENVIRONMENTAL / PERMITTING** TOTAL DEVELOPMENT BUDGET PRELIMINARY ENGINEERING **DEVELOPMENT BUDGET** DEVELOPMENT RIGHTS METEOROLOGY CONTINGENCY REAL ESTATE

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Definitive Agreements

- Execute Interconnection Agreement
- Negotiate turbine supply agreement
- Negotiate EPC agreement

Environmental/Permitting:

- Complete environmental studies EIS
- Obtain county permits

Real Estate

Perfect all real estate rights

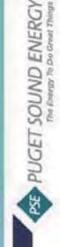
Deploy communications plan

Communications / Community

Meet with stakeholders

Technical Issues

- Preliminary engineering work
- Update wind resource analysis
- Selection of turbine manufacturer



Project Risks and Mitigation

AREA	RISKS	MITIGATION
Permitting	Project permit appeal	Low barrier costs to entry at this early phase; Permitting strategy of defensible EIS
Community	Opposition grows	Communication strategy and outreach; leading to acceptable final project plan
Wind Resource	Reduced capacity factor	Reduced capacity factor included in economics energy loss over 30 year life)
Development Budget	Development budget exceeds current estimated	Conservative budget estimate; budget will continue to be refined; updates to EMC as appropriate
Economic Viability	Project no longer economic	PSE preparing an accounting petition for cost recovery

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Key Findings / Benefits

Lower project costs by avoiding high developer fees associated with acquiring fully developed

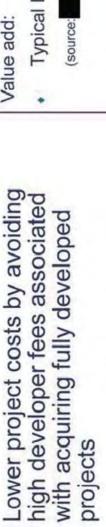
Project ownership opportunity

PSE controls development and construction Excellent transmission access and queue position

REDACTED VERSION

A favorable county government permitting environment Provides an exceptional opportunity to develop a project in the region's predominant, undeveloped land type – private forest

PSE project development team & experience





per kW

per kW

Appendix

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Project Development Team

PSE

Chris Bevil

Development Manager

Siting Project Manager

- Financial Analysis

- Cara Gudger
- Larry Tornberg
- Kurt Krebs
- Brian Lenz
- Andy Wappler

- Corporate Communications

- Community Relations

- Real Estate

- Transmission Integration

- Doug Faulkner
- Sam Osborne
 - Lorna Luebbe
- Brian Doughty Kim Lane

- Construction Management

Asset Management

- Engineering/Technical

- Legal (Environmental)

- Legal (Commercial)

- Steve St. Clair
- External
- Dewey & LeBoeuf
- Stoel Rives
- Riddell Williams P.S.
- David Evans & Assoc. David Evans & Assoc.
- Global Energy Concepts
- Porter Novelli

 Environmental Consultant - Legal (Real Estate)

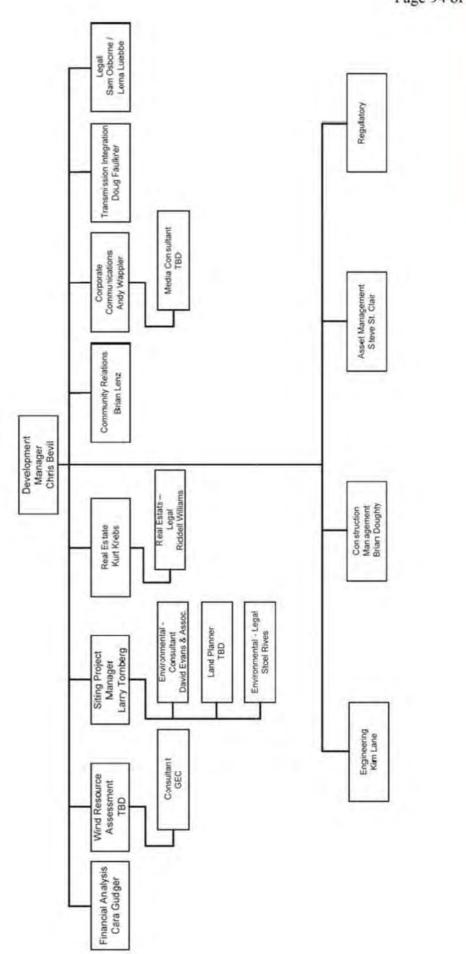
- Legal (Environmental)

- Legal (Commercial)

- Engineering Consultant
- Wind Consultant
- Media Consultant



Project Development Organization



Total "all-in" Capital Budget

	TOTAL DEVELOPMENT BUDGET			per kW based on
	CONSTRUCTION BUDGET	\$000	S/kW	Notes:
	WIND TURBINE SUPPLY AND INSTALLATION			Assumption, early turbine deposit may be required
	BALANCE OF PLANT (BOP) EPC AGREEMENT			Based on Wild Horse BOP, increase for inflation, for decreased economies of scale
	PROJECT SUBSTATION			early procurement may be required
	INSURANCE & BUILDERS ALL RISK			Quote from Tom Bamhart
REDA	START-UP			O&M mobilization & test power revenues
CTED	PROPERTY TAX		ı	
	SALES & USE TAX			sales taxes for non-generating assets; roads, etc.
	PSE PROJECT MANAGEMENT			Estimated by Brian Doughly
	OTHER EXPENSES			Community enhancements
	CONTINGENCY (10%)			10% Contingency
	AFUDC			Inic's AFUDC from development costs
	TOTAL CONSTRUCTION BUDGET			
	TOTAL 'ALL-IN" CAPITAL COSTS			

VERSION



Key Local Supporters and Opponents

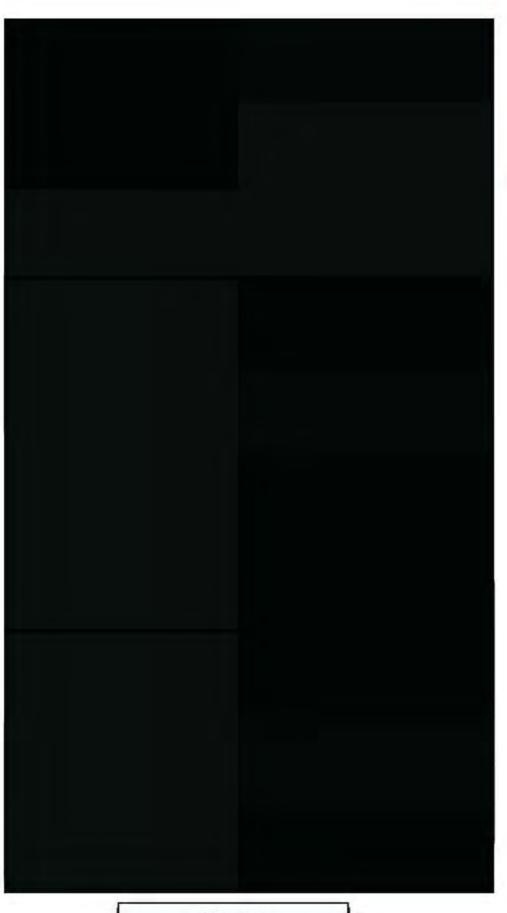
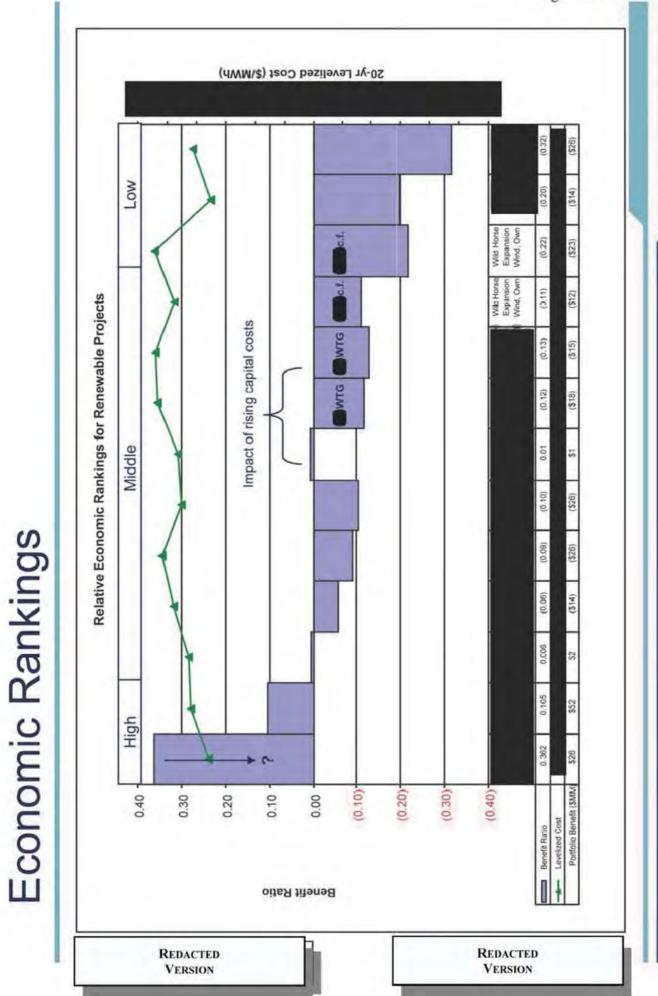


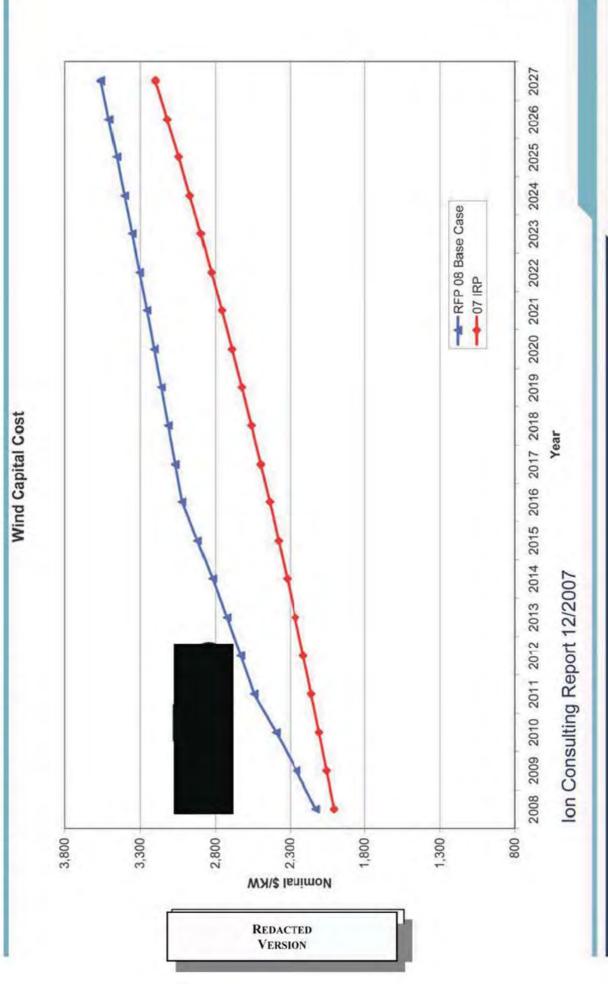
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Credit Assessment



Capital Costs









May 27, 2008

Resource Acquisition Update

Roger Garratt Director, Resource Acquisition & Emerging Technologies

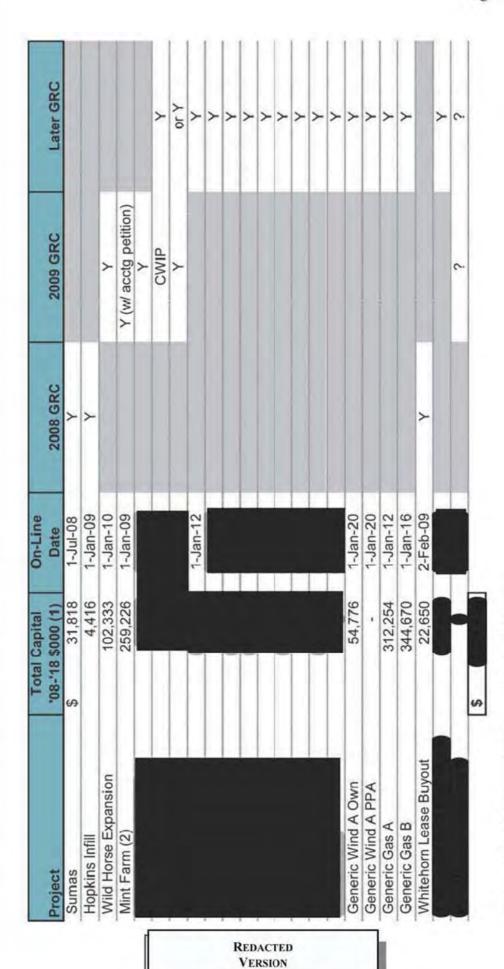


Agenda

- Forecasted Acquisitions
- RFP Update
- Targeted Wind Developments and Acquisitions
- Targeted Gas Developments and Acquisitions

PSE PUGET SOUND ENERGY The Every To De Great Trings

Resource Acquisition Input to 2008 Strategic Plan



Input for PSE Financial Model excludes AFUDC.
 Could be as early as 11/1/2008

- □FP □ bservations
- Fe⊟er proposals □it□less resource diversity
- Continued IIIer capital costs
- More □ind po□er purc□ase a□reements versus o ners ip opportunities
- fers predicated on extension of PTC

2008

2006

\$ 411

□eveli ed □esource Cost Comparison

175

160

15

130

200 prices represent Mid-C delivery.

2006

200

\$ 6 106

\$44 62

2

85

100

000\$

55

2006 and 2008 prices represent deliveries to PSE's system.

System PPAs are offers t at are s orter term in nature and not fied to a specific resource.

Interconnects to PSE unable to locate transmission re uests from pro ect to Frin PAs ueue ansmission unclear (as above) option to 293 M frm PTP transmission to PSEs PSE ould need to ac uire transmission System up rades Delivered to PSEs system at 115 substation Ittle Goose Substation 500 ub as stated in proposal Delivery to Jo n Day ⊓it deliver to PSE system for 100 M PTP to orse 230 system at Covin ton Delivery at busbar connected to Delivery to Mid-C Delivery to Mid-C Delivery to Mid-C Delivery to Mid-C Ild PA PSE 5yr PPA, year round except yr PPA inter only yr PPA year round fixed 15yr PPA PPA 15yr Tollin May-July fixed price ES is so eduled to be presented 20yr PPA prepay o ners ip o ners ip o ners ip or mers ip inter only o ners lp 0 0 potential J 15yr Tollin PPA o ners 20 11/1/2009 to 3/31/2015 11/1/2011 to 3/31/2015 11/1/2011 to 10/31/2015 C D 2010-C D 1 -09 C D -09 C D 1 -09 1/01/12 -12/1/26 11/01/08 -13/1/22 C_D 11/1/2011 1/1/2019 to 2009-2010 2009-2010 2010-2015 2012 20.39 Development Development Development Development Development Development Development Development peralin peratin peratin peratin ATC ATC ATC ATC Joint development pro ect 0.172 0.0.5 0.300 (0.028) 0.102 (0.007) (0.126.) 0,105 0.01 0.057 0.127 0.027 0.361 0.161 10 51,586 67,215 18,135, (1,790) (5,982) 5,963 25,577 5,796 52,308 30, 7 52, 27 119,707 22, 13 TID PSE development projects. These projects did not come thround the 2008 liFP process, to the Enerly Manallement Committee for approval May 19, 2008. 825 PSE/ 310 Garrield Counties, iffitas County. On vie. . A Columbia 50/50 Joint Development PSE ES ay ala investment Partners PSE Mint Farm Ener y Center Columbia-Garrield County Joint Development Pro acts orse Expansion PI atG pu pui atG atG atG pu Pu Pu Pu pui PPA PPA PPA PPA

REDACTED VERSION

2008 □FP Candidate Sort ist

Existing, Development & Proposed



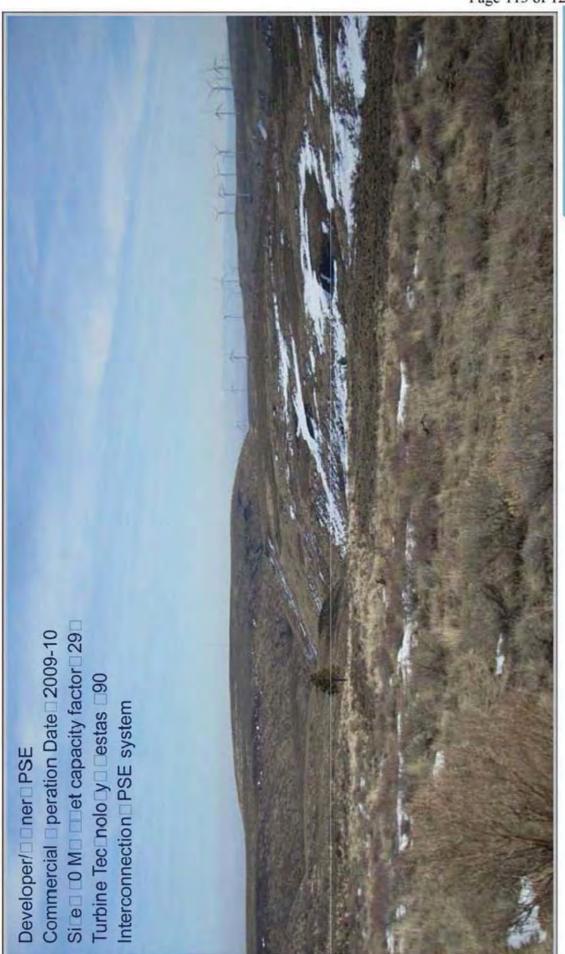
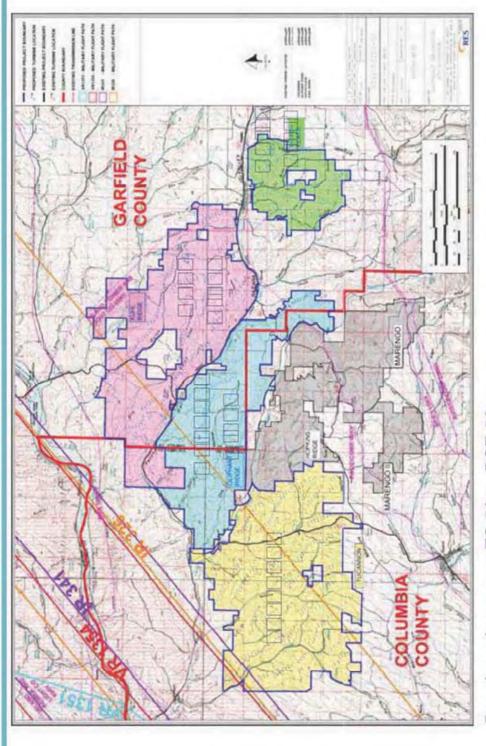


Exhibit No. ___(RG-9HC) Page 114 of 125 PSE PUGET SOUND ENERGY REDACTED VERSION

□ased on Draft GEC □ ind Ener y Assessment □eport



REDACTED VERSION

□ES, 625 M□ PSE)□□et capacity factor□□ Developer/□ner□□ES 50□, PSE 50□ Commercial □peration Date□2010-2015 Si□□ 1250 M□ total (625 M□ □ES, 625 Turbine Tec⊓nolo□y □T□D



nterconnection PA system

PUGET SOUND ENERGY

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REDACTED VERSION

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Exhibit No. ___(RG-9HC) Page 119 of 125 PUGET SOUND ENERGY REDACTED VERSION

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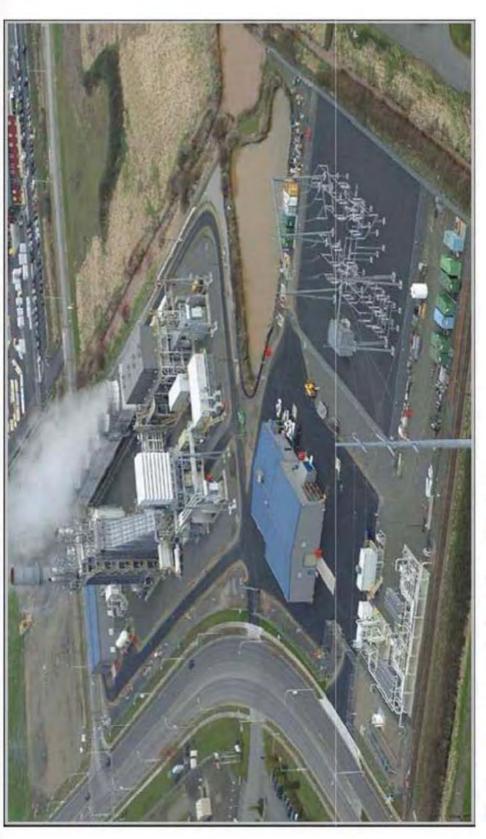
Closin Date 3 2008 (estimated)

Commercial □ peration Date □ April 1993

Si e 133 M Gas-Fired CCCT plant 1x1 confi uration

Transmission/Interconnection ☐ PSE System

Mint Farm Ener□y Center - □on□vie□, □ A



Plant □ □ner □ ay ata Investment Partners

Commercial □ peration Date □ January 2008

Sie 310 Ma Gas-Fired CCCT plant 1x1 configuration

Transmission/Interconnection BA

Mint Farm Ener O Center D Estimated Transaction Sc edule

- Execute Detter of Intent May 30, 2008
- Execute Members ip Purcase Areement July 31,
- Accountin Petition Filed July 31, 2008
- Closin Ctober 31, 2008

otes

Due dilicence could occur in 60-day period betcen May 30, 2008 and July 31, 2008.

■Accountin Petition ould request deferral of Fixed Costs and original excess of to baseline poller costs.

■Extension up to 5 days for FE C 203 approval.



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The finerily in the Greek Thinsse

Exhibit No. (RG-9HC) Page 124 of 125 PUGET SOUND ENERGY REDACTED VERSION

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