

EXHIBIT NO. ___(EMM-13HC)
DOCKET NO. _____
2005 POWER COST ONLY RATE CASE
WITNESS: ERIC M. MARKELL

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

Docket No. UE-_____

**TWELFTH EXHIBIT TO THE PREFILED DIRECT TESTIMONY OF
ERIC M. MARKELL (HIGHLY CONFIDENTIAL)
ON BEHALF OF PUGET SOUND ENERGY, INC.**

REDACTED VERSION

JUNE 7, 2005

PUGET SOUND ENERGY, INC.
MINUTES OF THE
BOARD OF DIRECTORS' MEETING
APRIL 6, 2004

Pursuant to notice duly given on March 31, 2004 (a copy of which is filed with these minutes), a meeting of the Board of Directors of Puget Sound Energy was held in Puget Sound Energy's Board Room on the 12th Floor of the Puget Sound Energy Building, beginning at 9 a.m. on Tuesday, April 6, 2004.

The following Directors were present:

- D. P. Beighle, by telephone
- C. W. Bingham
- P. J. Campbell
- C. W. Cole
- R. L. Dryden
- S. E. Frank
- T. Moriguchi
- K. P. Mortimer
- S. G. Narodick
- S. P. Reynolds

being more than a quorum.

Also present were:

Puget Energy and PSE Management

- J. W. Eldredge, Corporate Secretary and Chief Accounting Officer
- D. E. Gaines, Vice President Finance and Treasurer
- J. L. O'Connor, Vice President and General Counsel
- B. A. Valdman, Senior Vice President Finance and CFO

PSE Management

- K. J. Harris, Vice President Regulatory & Government Affairs
- E. M. Markell, Senior Vice President Energy Resources
- D. D. Waite, Director Investor Relations

InfrastruX Management

- M. T. Lennon, President and CEO

Mr. Reynolds presided and Mr. Eldredge kept the records of the meeting.

filings as well as local newspaper coverage of April 5 and April 6, 2004. Ms. Harris agreed to furnish the Board copies of the testimony of the primary PSE witnesses in the rate request filings of April 5, 2004. After discussion, Ms. Harris left the meeting.

PSE ENERGY RESOURCES UPDATE

Mr. Reynolds then asked Mr. Markell to join the meeting and give the Board an update on PSE energy resources matters. Mr. Markell then reviewed with the Board a report he had prepared covering an update on PSE's "All-Source" request for power resource proposals, PSE's wind energy resource request for proposals existing hydroelectric resources and the Colstrip projects. A copy of Mr. Markell's report was furnished the Board in advance of this meeting and is filed with the minutes. After his report, Mr. Markell left the meeting.

EXECUTIVE SESSION WITHOUT MANAGEMENT PRESENT

Mr. Beighle then asked management to leave the meeting and the Board went into an executive session. Mr. Beighle informed Mr. Eldredge after the meeting that held a discussion concerning general corporate governance matters.

ADJOURNMENT

There being no further business to come before the meeting, on motion duly made and seconded, it was unanimously

RESOLVED - That this meeting be and hereby is adjourned.

A true record.

Energy Resources Progress Report

Board of Directors Discussion

**Eric M. Markell
Senior Vice President,
Energy Resources**

April 2004

Energy Resources Progress Report

- All-Source RFP
- Wind Resource RFP
-
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REDACTED

TEXT IN BOX IS HIGHLY
CONFIDENTIAL

Highly Confidential per
WAC 480-07-160

All-Source RFP Update

Goals

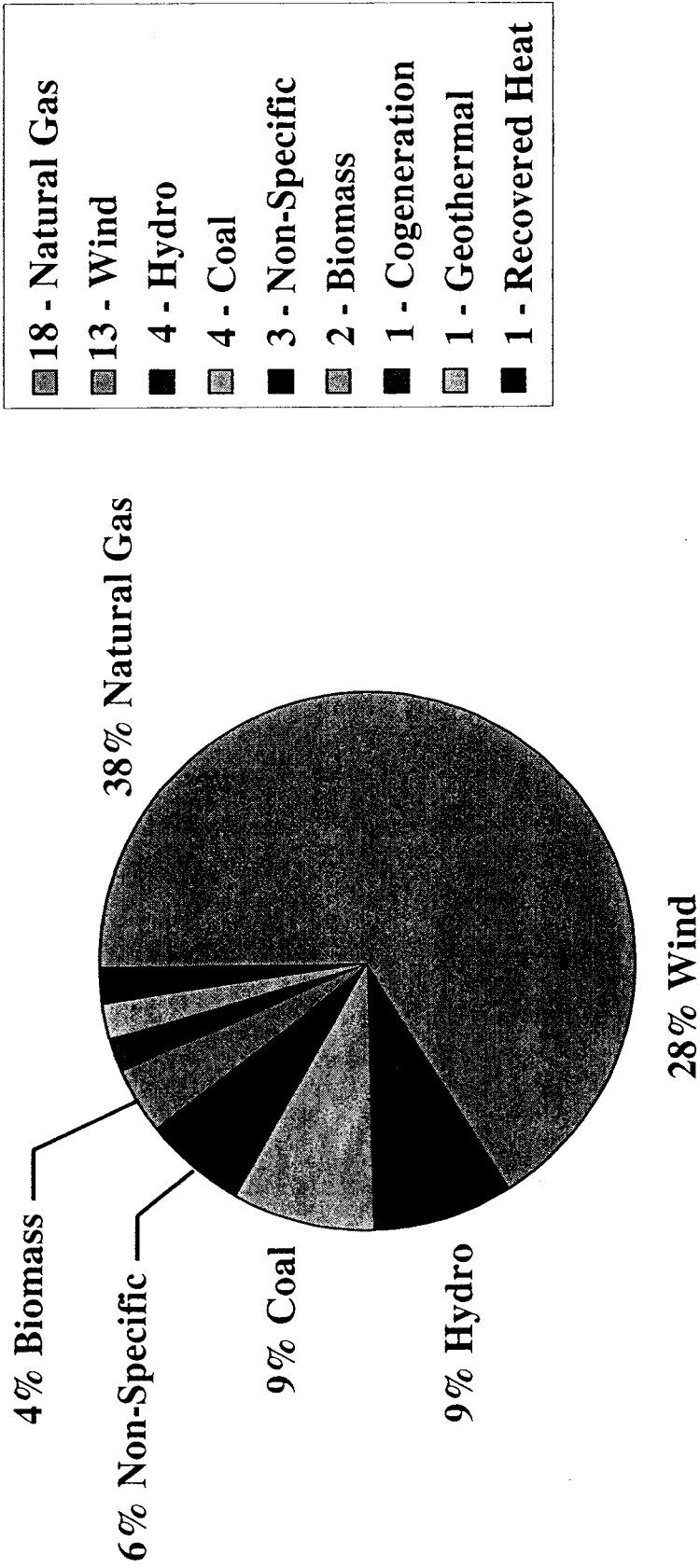
- 355 aMW of resources, consistent with PSE planning and strategies
- Apply evaluation criteria and portfolio screening model in a consistent manner
 - Across range of projects submitted
 - In comparison to best Wind RFP projects

All-Source RFP Estimated Schedule

WUTC Approval of RFP	January 28, 2004
Issue Final RFP	February 4, 2004
Pre-Proposal Conference	February 11, 2004
Proposal Responses Due	March 12, 2004
Select Short-Listed Proposals	May 30, 2004
Execute Letter(s) of Intent	July 31, 2004
Execute Definitive Agreements	November 30, 2004
Execute Material Construction/ Procurement Agreements	May 1, 2005

All-Source Proposals, By Fuel Type

- 47 - Proposals with options for PPA, Ownership and/or Hybrid
- 39 - Owners/Developers



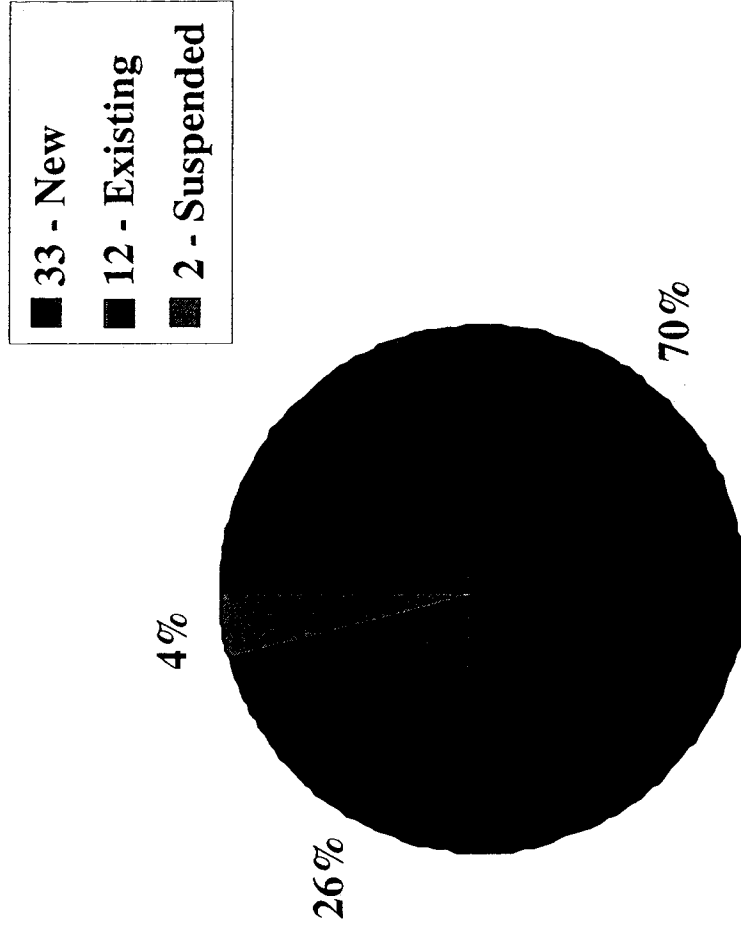
Summary is based on initial draft figures from bid opening.
 All figures are not final and subject to change and revision at any future date.

All-Source Proposals, By Project Status

- 47 - Proposals of Various Status

- Status of Proposals

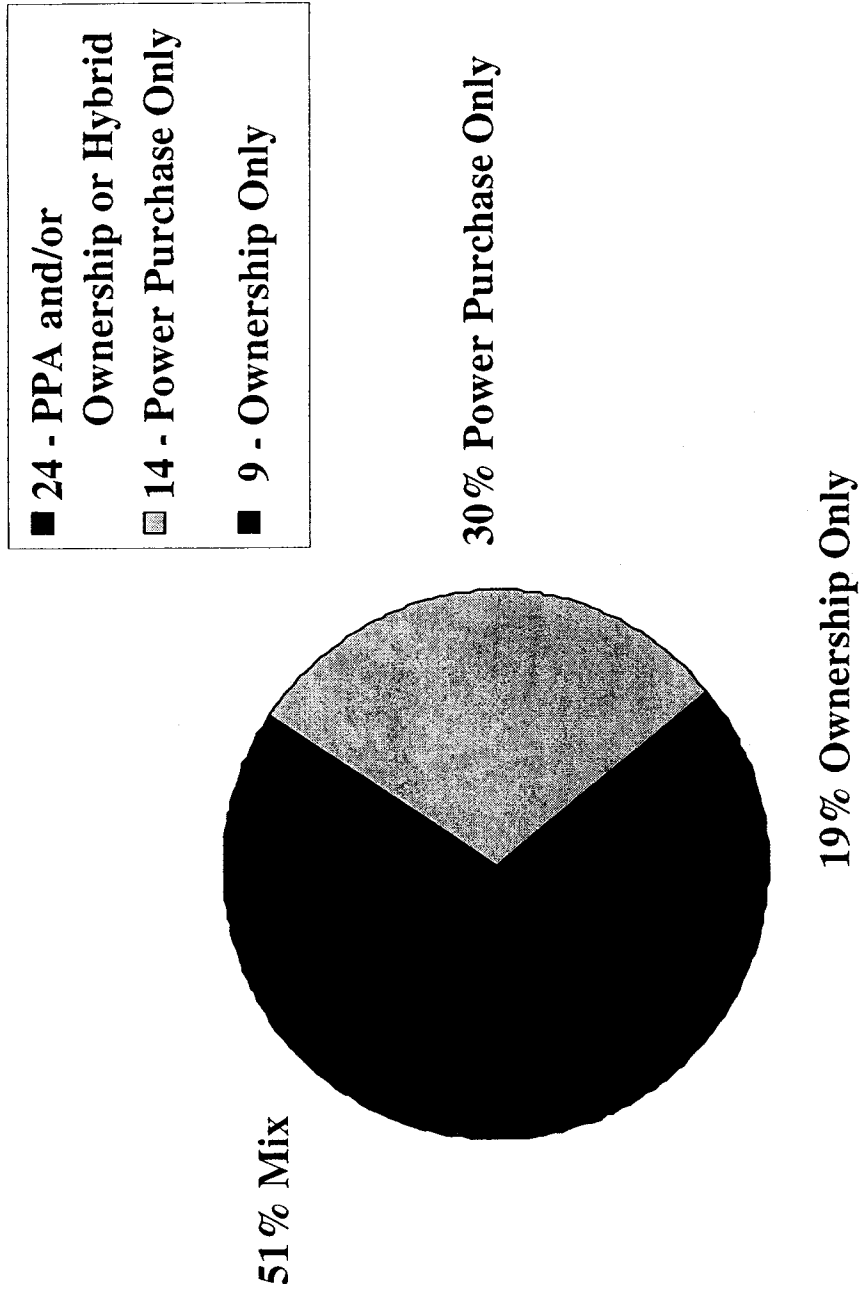
- 33 - New Projects
 - 13-Wind
 - 10-Natural Gas
 - 3-Hydro
 - 2-Coal
 - 2-Biomass
 - 1-Geothermal
- 12 - Existing Projects
 - 6-Natural Gas
 - 2-Coal
 - 1-Hydro
- 2 - Suspended Projects
 - 2-Natural Gas



*Summary is based on initial draft figures from bid opening.
All figures are not final and subject to change and revision at any future date.*

All-Source Proposals, By Type of Offer

- 47 - Proposals with Various Offer Options



*Summary is based on initial draft figures from bid opening.
All figures are not final and subject to change and revision at any future date.*

Early Challenges Observed

- Permitting
- Transmission Service
- Gas Transportation Service
- Fuel Supply
- Fuel Risk Management

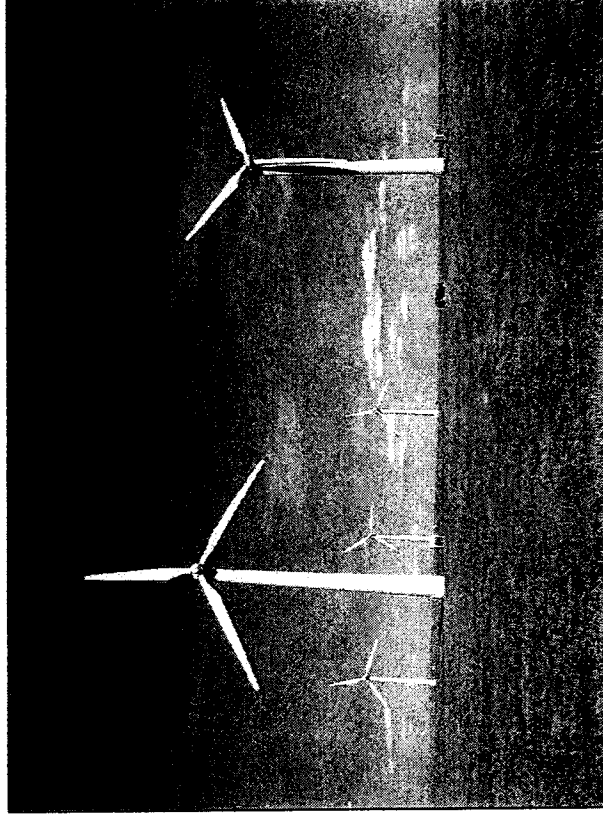
Wind Resource Update

Wind Acquisition Goals

- Acquire 150 MW of wind resource
- Address company's resource deficit
 - Along with acquisition(s) from All-Source RFP
- Address company's 5% renewables target

Typical Wind Project Elements

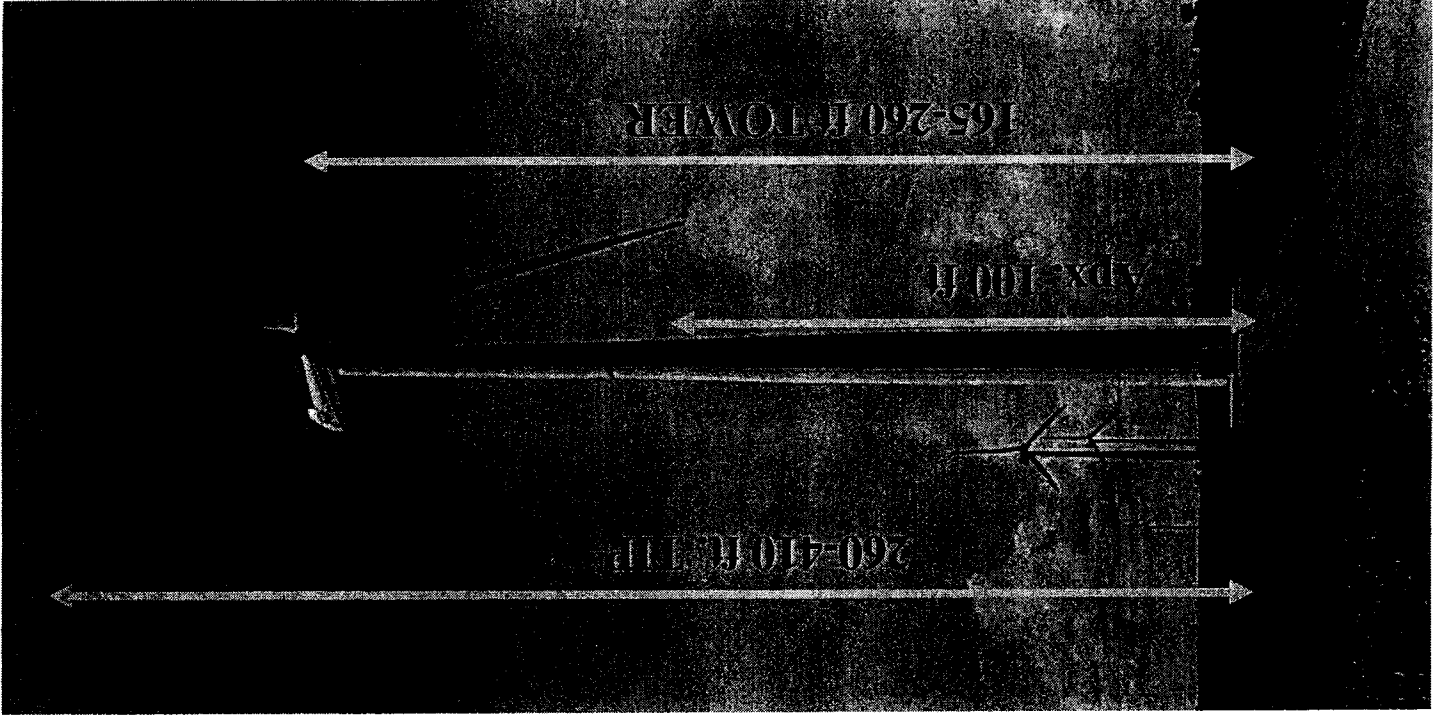
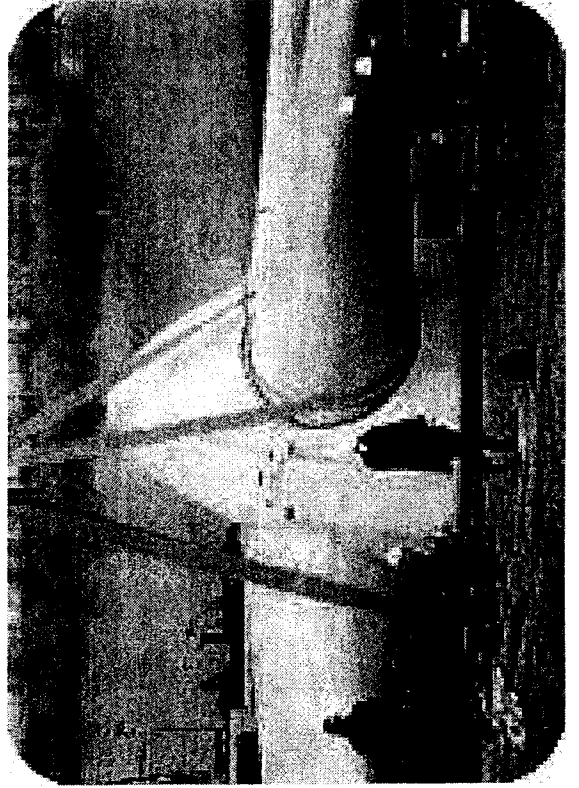
- Critical project elements
 - Adequate wind resource
 - Property rights
 - Available, economic transmission
 - Power off-taker
 - Non-appealable site permits
 - Community support
- LCP generic assumptions
 - Capital cost: \$1,003/kW
 - (\$150 M for 150 MW project)
 - Fixed O&M: \$40.98/kW-yr
 - (\$6,147 K per year for 150 MW)
 - Variable O&M: \$1/MWh
 - Annual capacity factor: 30%



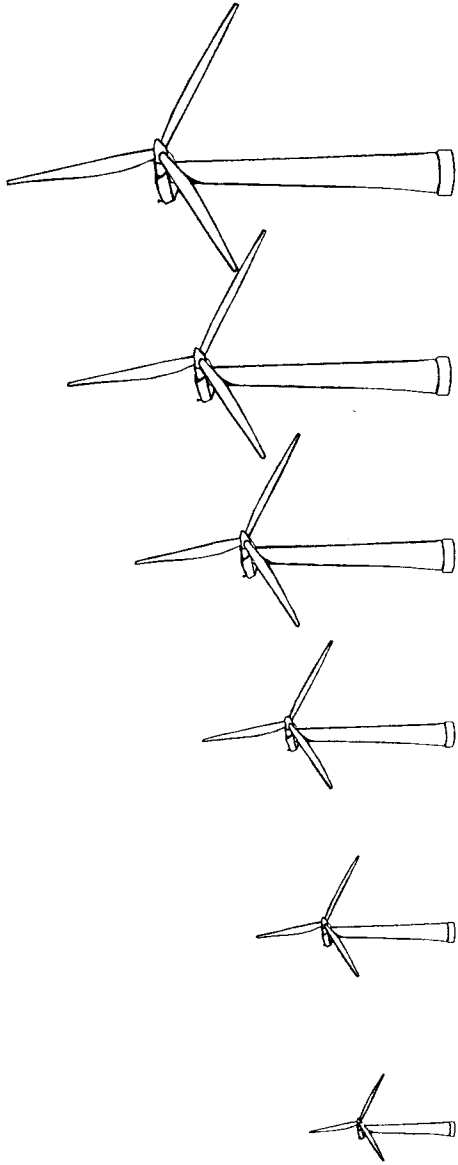
Wind is... the most viable renewable solution
the world's fastest growing energy source

SIZE OF TURBINES

- Turbine footprint is small
- Rotor diameter is about 150-250 feet
- Lowest ground clearance is about 100 ft.



20 Years of Wind Turbine Development



	<u>1981</u>	<u>1985</u>	<u>1990</u>	<u>1996</u>	<u>1999</u>	<u>2000</u>
Rotor (meter)	10	17	27	40	50	71
WTG output (kW)	25	100	225	550	750	1,650
WTG Cost (\$000)	\$25	\$165	\$300	\$580	\$730	\$1,300
WTG Cost (\$/kW)	\$2,600	\$1,650	\$1,333	\$1,050	\$950	\$790
WTG MWh	45	220	550	1,480	2,200	5,600

Declining unit cost
 Increasing unit efficiency

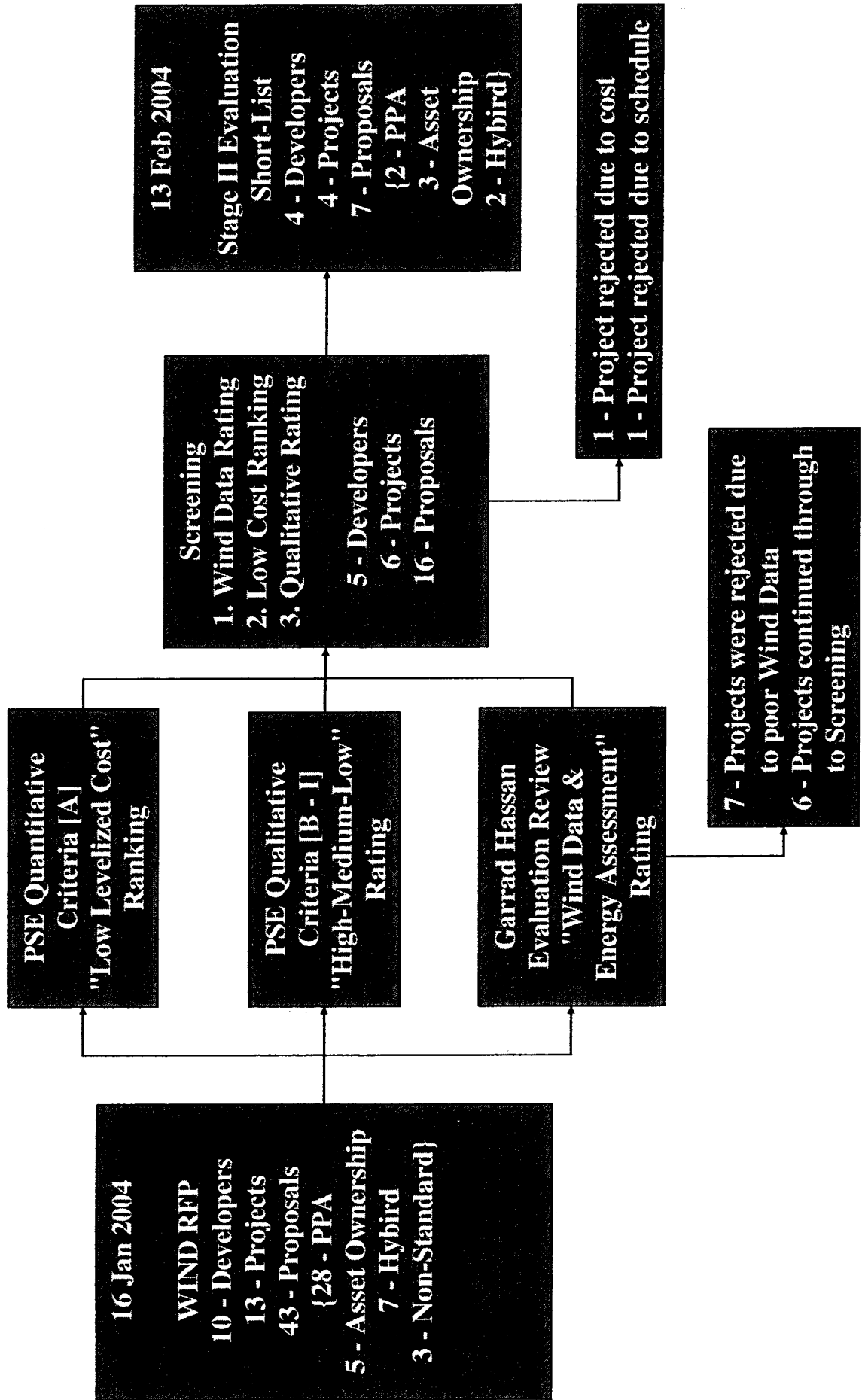
Best Case Wind Acquisition Schedule

Proposal Responses Due	January 16, 2004
Stage I Evaluation	January 16 - February 13, 2004
Select Short-Listed Proposals	February 13, 2004
Receive Stage II Supplemental Information	March 1, 2004
Stage II Evaluation	February 13 - March 19, 2004
Identification of Selected Project(s)	March 19, 2004
Commence Due Diligence	April 1, 2004
Execute Letter(s) of Intent	May 30, 2004
Board of Directors Approval	July 13, 2004
Execute Definitive Transaction Agreements/PPA	August 30, 2004
Execute EPC/Procurement Agreements	December 31, 2004
Non-appealable Permit/Notice to Proceed	April 1, 2005
Commercial Operation Date	December 31, 2005

PSE Evaluation Criteria for Electric Resource

- **Compatibility with Need**
- **Cost Minimization**
- **Risk Management**
- **Public Benefits**
- **Strategic & Financial**

Wind RFP Review Process



Wind Resource Short List

Highly Confidential per
WAC 480-07-160

Developer	Project	MW	Location	Proposal Option
	REDACTED			100% PSE Ownership
Zilkha	Wild Horse	150	Kittitas County, WA	100% PSE Ownership
	REDACTED			50% PPA/50% PSE Ownership
				100% PPA or 50% PPA/ 50% PSE Ownership
RES	Hopkins Ridge	150	Columbia County, WA	100% PPA or 100% PSE Ownership

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Project

REDACTED

- Location: [REDACTED]
- [REDACTED] based on GE 1.5 MW WTGs
- [REDACTED]
- Best Case COD - 12/31/05
- Organized Community Opposition
- Permitting via [REDACTED] Process
- Likely Opposition Appeal
 - Appeals venues to both Superior Court and Growth Management Hearings Board

REDACTED

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Zilkha - Wild Horse Project

- Location: Kittitas County, WA
- 150 MW based on GE 1.5 MW WTGs
- [REDACTED]
- Best Case COD - 4/1/06
- No Community Opposition
- Upgrades to IP line required
 - New Columbia River crossing and connection to Wanapum Substation

- Permitting via Washington EFSEC
- [REDACTED]

- Likely County Appeal; [REDACTED]



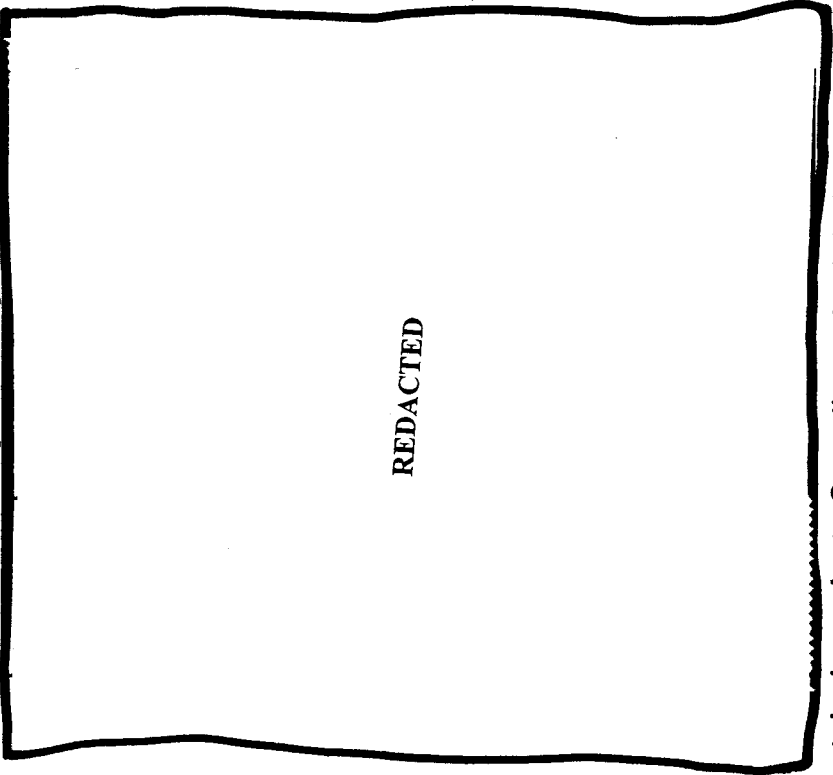
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Preliminary Construction Spending Plan

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PSE's Preliminary
Spending Plan
During Construction*
(000's)



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* assumes 50% PSE ownership stake in project. Spending schedule is preliminary and is likely to change as review of project and transmission issues continue.

Cost Comparison to Baseline Rate - Preliminary

Highly Confidential per
WAC 480-07-160

Project	Total MWh in 2006	Levelized COE (\$/MWh) ¹	Power Cost Base Line Rate ²
REDACTED			

¹ Based on Acquisition Screening Model costs as of 3/24/04.

² Total Power Cost including variable fuel, purchase power, return on generation plant investment and O&M (PCORC).

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Key Transaction Issues

- Non-appealable project permits
- Satisfactory community relationships
- Commercial terms and conditions
- Satisfactory EPC/Procurement terms and conditions
- Timely interconnection agreements and construction
- PTC use and accounting treatments

Key Transaction Issues (cont'd)

- Development project
 - Finalize development
 - Construction management
 - Long-term O&M
 - Asset management
- Complex project financing arrangements for developer-owned portion of project
 - Likely project delays while finalizing financing
 - Loan security matters
 - Explore cheaper financing alternatives for partner

Regulatory & Accounting Issues

- Approval of costs to be recovered in rates;
rate making treatment
- PCA and PTC
 - PSE would pass through benefit to customer via PCA mechanism as PTC is earned.
 - PTC used to reduce tax may not equal PTC earned
- Wind Project Tax-in-Service Date Determination
- Accounting and financial reporting standards for PPAs are in flux

Deal Breakers

- Failure of PTC renewal
- Inability of PSE to utilize PTCs
 - Usage by regulated utility
 - Taxable income forecast
- Significant community opposition to selected projects
- Wind award(s) vs. All-Source RFP
- Unanticipated accounting treatments; FIN 46, etc.

Next Steps

- Re-submittals in All-Source by wind projects
- Commence exploratory structuring discussions with leading candidates
- Conduct due diligence
- Commence LOI negotiations
- Use portfolio screening models to analyze project selection(s) and All-Source submittals