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FILED
SUPERIOR COURT
THURSTON COUNTY, WA

2017 DEC 29 PM 1:05

Linda Myhre Enlow
Thurston County Clerk

☐ EXPEDITE
☐ No Hearing Set
☒ Hearing is Set without oral argument
Date: January 19, 2018
Time: 9:00 a.m.
Judge James Dixon

STATE OF WASHINGTON
THURSTON COUNTY SUPERIOR COURT

ASSOCIATION OF WASHINGTON
BUSINESS, et al.,

Petitioners,

v.

WASHINGTON STATE DEPARTMENT
OF ECOLOGY,

Respondent,

and

WASHINGTON ENVIRONMENTAL
COUNCIL, et al.,

Respondent-Intervenors.

NO. 16-2-03923-34 (consolidated)

DECLARATION OF
KATARZYNA E. PATORA

AVISTA CORPORATION, et al.,

Petitioners,

v.

WASHINGTON STATE DEPARTMENT
OF ECOLOGY,

Respondent,

and

WASHINGTON ENVIRONMENTAL
COUNCIL, et al.,

Respondent-Intervenors.

NO. 16-2-03966-34

I, KATARZYNA E. PATORA, declare under penalty of perjury under the laws of the
state of Washington that the following is true and correct:

DECLARATION OF
KATARZYNA E. PATORA

1 1. I am a citizen of the United States and a resident of the state of Washington,
2 over the age of 18 years, competent to make this declaration, and I make this declaration from
3 my own personal knowledge and judgment.

4 2. I am currently employed by the Washington State Department of Ecology as a
5 Senior Economist. I have held this position since December 2008. In this role I prepare or
6 review all the cost benefit analyses required by RCW 34.05.328, and Small Business
7 Economic Impact Statements required by RCW 19.85, to support Ecology rulemaking, as well
8 as the Economic Impact Analyses for National Pollution Discharge Elimination System
9 (NPDES) general permits required under WAC 173-226-120. I began work at Ecology as an
10 Administrative Intern in 2006, and became an Economic Analyst in March of 2007.

11 3. I have a bachelor's degree in economics from the University of Oregon and a
12 master's degree in economics from the University of Washington.

13 4. I prepared the cost benefit analysis for WAC 173-442, Ecology's Clean
14 Air Rule.

15 5. In light of the court's December 15, 2017 ruling, I reviewed the cost benefit
16 analysis and calculations in the rule file for the Clean Air Rule, and determined what the costs
17 and benefits of the rule would be without the participation of petroleum product producers and
18 importers and the natural gas distributors. For my analysis, I used the spread sheet I used in
19 the original analysis (found at AR 11793), and removed the sources named in the "NG LDCs
20 (not EITE)" tab and the "Petroleum Products (not EITE)" tab. This allowed me to calculate
21 total emissions reductions by remaining covered parties. Based on only emissions reductions
22 from remaining covered sources, I calculated the total quantifiable costs of combined
23 permanent emissions reductions and emissions reductions put toward the reserve. Similarly, I
24 calculated the total quantifiable benefit of emissions reductions based on permanent
25 reductions from remaining covered sources, and the Social Cost of Carbon. I also recalculated
26 verification costs for the smaller number of covered sources. All calculations used the same

1 methodology and ranges of unit values as I used in the original analysis. I also determined
2 there would be no new reporting costs under the limited rule, and that fees would not change
3 from what I estimated in the original analysis. A true and correct copy of my analysis is
4 attached as Exhibit A.

5 6. I determined that, if the petroleum product producers and importers and the
6 natural gas distributors are not covered by the rule, the 20-year present value costs of the rule
7 would be between \$148 million and \$2.0 billion depending on how covered sources choose to
8 comply. The endpoints of the cost range reflect sources exclusively using the lowest-cost or
9 highest-cost compliance options, and do not reflect the likely compliance path of a
10 combination of emissions reductions and emission reduction unit purchases. The quantifiable
11 median benefits would be \$2.8 billion at a comparable discount rate to the rate used in cost
12 calculations. Other benefits discussed qualitatively in the original analysis are still relevant to
13 the limited rule, but conceptually scaled back to the degree that emissions reductions would be
14 scaled down, and in line with reductions in emissions-based costs and benefits. These include
15 costs not included in the value of the Social Cost of Carbon (see page 49 of the original
16 analysis, found at AR 306), as well as potential co-benefits of emissions reduction projects
17 (see page 55 of original analysis, found at AR 312) and avoided costs of associated emissions
18 such as fine particulates, volatile organic compounds, and nitrogen oxides (see page 54 of the
19 original analysis, found at AR 311). This determination shows that the benefits of the
20 truncated rule outweigh the costs.

21 7. If the petroleum product producers and importers and the natural gas
22 distributors are not covered by the rule, the demand for emission reduction units will be
23 considerably lower than it would have been if they were covered. Therefore, the competition

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1 for emission reduction units will be lower, and the upward pressure on emissions reduction
2 unit prices will likely be lower than it otherwise would have been.

3 DATED this 27th day of December 2017 in Lacey, Washington.

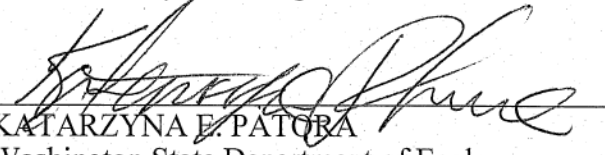
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6 KATARZYNA E. PATORA
7 Washington State Department of Ecology
8 Senior Economist
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EXHIBIT A

SUMMED COSTS AND BENEFITS - SUMMARY

20-Year Present Value Costs of 1 2/3 Percent Annual Emissions Reduction			
ON SITE LOW-PRICE		MARKET LOW	
(including purchases from other covered parties)			
EITES	\$169,936,888	EITES	\$95,928,339
Direct Emitters	\$432,919,113	Direct Emitters	\$244,380,203
Power Producers	\$189,542,030	Power Producers	\$106,995,322
TOTAL	\$792,398,031	TOTAL	\$447,303,864
ON SITE HIGH-PRICE		MARKET HIGH	
(including purchases from other covered parties)			
EITES	\$424,842,220	EITES	\$102,301,826
Direct Emitters	\$1,082,297,781	Direct Emitters	\$260,616,845
Power Producers	\$473,855,076	Power Producers	\$114,104,101
TOTAL	\$1,980,995,077	TOTAL	\$477,022,772
PROJECT LOW		PROGRAM (REC) LOW	
EITES	\$46,096,949	EITES	\$25,259,112
Direct Emitters	\$117,433,304	Direct Emitters	\$64,348,315
Power Producers	\$51,415,025	Power Producers	\$28,173,185
TOTAL	\$214,945,278	TOTAL	\$117,780,612
PROJECT HIGH		PROGRAM (REC) HIGH	
EITES	\$80,669,660	EITES	\$84,147,658
Direct Emitters	\$205,508,281	Direct Emitters	\$214,368,582
Power Producers	\$89,976,293	Power Producers	\$93,855,538
TOTAL	\$376,154,234	TOTAL	\$392,371,778

Avoided SCC value lost

TOTAL 20-YEAR PV BENEFIT

PV Benefit at 5% discount

\$612,137,087

PV Benefit at 3% discount

\$1,799,549,284

PV Benefit at 2.5% discount

\$2,802,721,305

PV Benefit at 3% 95th percent

\$5,440,623,890

LOWEST TOTAL COST

\$147,553,987

ADDING FEE DECREASES

\$2,803,351,305

HIGHEST TOTAL COST

\$2,046,149,851

SUMMED COSTS AND BENEFITS - SUMMARY

20-Year Present Value Costs of 1/30 Percent Reserve Emissions Reduction

ON SITE LOW-PRICE (including purchases from other covered parties)		MARKET LOW	
EITES	\$2,741,082	EITES	\$1,547,324
Direct Emitters	\$7,378,897	Direct Emitters	\$4,165,343
Power Producers	\$4,501,930	Power Producers	\$2,541,312
TOTAL	\$14,621,909	TOTAL	\$8,253,979
ON SITE HIGH-PRICE (including purchases from other covered parties)		MARKET HIGH	
EITES	\$6,852,706	EITES	\$1,650,129
Direct Emitters	\$18,447,243	Direct Emitters	\$4,442,088
Power Producers	\$11,254,825	Power Producers	\$2,710,157
TOTAL	\$36,554,774	TOTAL	\$8,802,374
PROJECT LOW		PROGRAM (REC) LOW	
EITES	\$743,544	EITES	\$407,430
Direct Emitters	\$2,001,594	Direct Emitters	\$1,096,786
Power Producers	\$1,221,190	Power Producers	\$669,159
TOTAL	\$3,966,328	TOTAL	\$2,173,375
PROJECT HIGH		PROGRAM (REC) HIGH	
EITES	\$1,301,202	EITES	\$1,357,302
Direct Emitters	\$3,502,789	Direct Emitters	\$3,653,809
Power Producers	\$2,137,083	Power Producers	\$2,229,221
TOTAL	\$6,941,074	TOTAL	\$7,240,332

REPORTING

Estimated new reporting costs were only for natural gas distributors and petroleum product importers. Under the truncated rule, there would be no new reporting costs.

FEEES

FEE INCREASES:

Total estimated 20-year present value costs of fee changes.
\$2 million (total low) and \$3 million (total high)

FEE DECREASES:

Ecology estimated a total present value benefit of fee reductions, over 20 years.
\$630,000

VERIFICATION

\$25.6 million 20-year PV