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## SETTLEMENT AGREEMENT BETWEEN STATE OF WASHINGTON DEPARTMENT OF ECOLOGY AND TRANSALTA CENTRALIA GENERATION LLC OF AIR QUALITY MATTERS

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This Settlement Agreement is entered into by the State of Washington Department of Ecology ("Ecology") and TransAlta Centralia Generation LLC ("TransAlta"). Ecology and TransAlta may be referred to collectively as "the Parties."

### I. STATEMENT OF PURPOSE

This Settlement Agreement addresses matters related to: (a) questions of fact and law surrounding the requirement of the Clean Air Act, 42 U.S.C. §§7401 to 7671q, the Washington Clean Air Act, RCW 70.94 *et seq.* ("WCAA"), and regulations adopted pursuant thereto to install "Best Available Retrofit Technology" ("BART") to reduce emissions at TransAlta's coal-fired power plant located near Centralia, Washington ("Centralia Plant"), and (b) TransAlta's early reduction of mercury emissions at the Centralia Plant prior to the adoption of federal or state requirements. These matters have been settled by this Settlement Agreement between the Parties without trial or adjudication of any issue of fact or law.

The mutual objectives of the Parties in entering into this Settlement Agreement are:

1. To resolve the dispute between the Parties of whether the Centralia Plant previously met BART requirements of the U.S. Environmental Protection Agency ("EPA") and Ecology or whether it must meet the current regulations and guidelines for BART as adopted by EPA in 2005.
2. To set an emission limit for nitrogen oxides ("NOx") lower than BART which, if met, removes the Centralia Plant from consideration for additional NOx reductions during Ecology's adoption of the 2018 Regional Haze State Implementation Plan.
3. To set forth the schedule and general plan for TransAlta's voluntary testing and installing of early mercury reduction controls at the Centralia Plant and Ecology's commitment to support the plan.
4. To expeditiously resolve these matters without unilateral enforcement or litigation expenditure by the Parties.

### II. RELEVANT BACKGROUND

#### Procedural Background

1. On October 10, 2007, TransAlta sent a letter to Ecology requesting the mediation of disputes involving air quality issues at the Centralia Power Plant (Plant). Ecology agreed to mediate, and the Parties commenced the mediation in October, 2007. Representatives of the Governor's Office and the Attorney General's Office participated in the mediation process.

2. The Honorable Daniel J. Berschauer served as the mediator. Several mediation sessions took place from October 2007 through November 2008. At the conclusion of the process, the Parties had reached an agreement on the key issues involved in the mediation, the details of which are set forth in this Agreement

### **Clean Air Act BART Requirements**

3. Section 169A of the federal Clean Air Act (42 U.S.C. § 7491, adopted in 1977) requires the states to remedy visibility impairment at national parks and wilderness areas ("Class 1 Areas") due to man-made air pollution. The states must submit State Implementation Plans ("SIPs") that contain emission limits, schedules of compliance, and other measures necessary to make "reasonable progress" toward meeting the national visibility goal. 42 U.S.C. § 7491(b)(2).
4. The SIP requirements include BART for major stationary sources that "may reasonably be anticipated to cause or contribute to any impairment or visibility" in a Class 1 Area. The "BART-eligible sources" are those which: (a) have the potential to emit 250 tons per year or more of a visibility-impairing air pollutant, e.g., SO<sub>2</sub>, NO<sub>x</sub>, and PM<sub>10</sub>, (b) commenced operation between August 7, 1962, and August 7, 1977, and (c) fit within specified categories, e.g., "fossil-fuel fired steam electric plants of more than 250 million British thermal units per hour heat input." The Centralia Plant is a "BART-eligible source."

5. "BART" means:

an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility. The emission limitation must be established, on a case-by-case basis, taking into consideration the technology available, the costs of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

40 CFR 51.301.

6. In 1980, EPA adopted regulations to implement Section 169A. The 1980 regulations require each state to apply BART to each BART-eligible source "which may reasonably be anticipated to cause or contribute to impairment of visibility in any mandatory Class I Federal area where the impairment in the mandatory Class I Federal area is reasonably attributable to that existing stationary facility." 40 CFR 51.302(c)(4). EPA also issued BART Guidelines in connection with the Phase 1 visibility program to provide guidance to the states in setting BART emission limits for coal-fired power plants. See 40 CFR 51.302(c)(4)(III).
7. In 2005, EPA revised its regional haze regulations and issued new BART Guidelines for power plants. See 40 CFR Part 51, App. Y. The 2005 BART Guidelines are based on newer technologies that have become available since the original 1980

BART Guidelines. The 2005 Guidelines are the guidelines that are currently in effect.

8. Ecology and the Southwest Clean Air Agency ("SWCAA") implement BART requirements through their regulations. WAC 173-400-151; SWCAA 400-151.

### **BART Compliance**

9. In 1996 the former owners of the Centralia Plant, Ecology, the U.S. Environmental Protection Agency, the National Park Service, the U.S. Forest Service and SWCAA implemented a collaborative process to develop BART emission limits. The collaborative process concluded with an agreement by all participants on SO<sub>2</sub> and NO<sub>x</sub> emission limits. The emission limits were incorporated in a 1997 RACT order issued by SWCAA.
10. Between 2000 and 2002 the Centralia Plant installed the emission controls to comply with the RACT order. SO<sub>2</sub> "scrubbers" were installed at a capital cost of \$190 million with an annual O&M cost of \$23 million. They reduce emissions by 80,000 tpy (about 90%). The low NO<sub>x</sub> burners (Level III) were installed at a capital cost of \$14 million. They reduce emissions by an estimated 7000 tpy (about 30%) compared with the baseline emission rate during the 1990s.
11. In 2006 and 2007, Ecology commenced implementation of EPA's 2005 BART guidelines in Washington. In June 2007, TransAlta submitted a "white paper" to Ecology which took the position that the 2005 BART requirements were not applicable to the Centralia Plant. This position was premised on the 1996 collaborative process and the RACT order.
12. Ecology sent a letter to TransAlta dated June 28, 2007, informing it of Ecology's plan to "issue regulatory orders in July 2007 requesting submittal of a BART analysis." On the same day, Ecology sent an e-mail to TransAlta stating that it would not issue the regulatory order to TransAlta until it had completed its review of the white paper's analysis.
13. Ecology and TransAlta were unable to agree on the legal question of whether the 2005 BART regulations apply to the Centralia Plant. However, the parties agreed to resolve this issue through this Settlement Agreement rather than litigate applicability of BART to the Plant.
14. In reaching this Settlement Agreement on BART limits for the Centralia Plant, Ecology applied the criteria of the 2005 EPA BART Guidelines, including: consideration of emissions achievable with current technology and coal-type; the limited visibility improvements from BART limits compared with historical, baseline emissions; the total and incremental cost of technology to achieve additional reductions; BART emission limits set for other power plants; the energy and non-air quality environmental impacts of further reductions; and other relevant regulatory considerations.

## History of EPA Clean Air Mercury Rule and Ecology's Implementation

15. EPA adopted the Clean Air Mercury Rule, 40 CFR Part 60, Subpart GGGG ("CAMR") on May 15, 2005. The CAMR allocated allowances of mercury emissions to each state and established a nationwide mercury trading system. The CAMR granted the states discretion to allocate mercury allowances.
16. Ecology initiated a stakeholder process in 2006 to develop a mercury rule for the State of Washington that would meet the CAMR requirements. Through the stakeholder process, Ecology developed a proposed rule to be published for comment in early 2008.
17. On February 8, 2008, the United States Court of Appeals for the District of Columbia held in the case of New Jersey v. EPA, No. 05-1097, that the CAMR was invalid. As a result of this decision, Ecology terminated the process to adopt a rule to implement CAMR. Ecology considered its other options to address mercury emissions, including the possibility of promulgating a rule under state law only.
18. Despite the invalidation of the CAMR rule, TransAlta remained committed to taking action to reduce its mercury emissions. Thus, the Parties continued in the mediation process to discuss options for reducing mercury emissions and reached the agreement described herein.

### III. EMISSION TERMS AND CONDITIONS

#### A. BART Requirements for NOx

1. BART Emission Limits
  - a. TransAlta agrees to decrease its emission limit for NOx to 0.24 lb/million Btu, which represents a 20% reduction from the current limit. TransAlta shall not cause or allow the 30-day rolling average of NOx emissions to exceed 0.24 lb/million Btu, both units averaged together, for days (i.e., midnight to midnight) when a unit's generating load is 360 MW gross or greater. If only one unit operates during a particular month, the rolling average emissions from that unit is the average of both units.
  - b. Continuous emission monitoring ("CEM") for BART compliance will be performed pursuant to Condition M9 of the Centralia Plant's Air Operating Permit, SW98-8-R3 (issued September 16, 2009) ("Air Operating Permit") and corresponding monitoring conditions in future renewals of the Air Operating Permit.
  - c. For a unit with less than 12 continuous hours of missing CEM data, the hourly emission rate will be based on the higher of (a) the average of emissions during the hour before and hour after the missing data or (b) the average of emissions from the previous 720 operating hours of quality-assured data.

- d. For a unit with 12 or more continuous hours of missing CEM data, the hourly emission rate will be based on the 90th percentile of the previous 720 operating hours of quality-assured data.
- e. The BART emission limits for NO<sub>x</sub> will become effective October 1, 2009, and the first compliance date will be midnight of October 30, 2009. This compliance date allows a period of time following the installation of new equipment in Centralia Plant Unit 1 in June 2009 for testing and “tuning” to promote operations with low NO<sub>x</sub> emissions.
- f. Ecology will issue a Regulatory Order (RO) pursuant to WAC 173-400-151 incorporating the BART requirements of this Settlement Agreement.
- g. Consistent with the Washington Clean Air Act and its implementing regulations, the SWCAA will be responsible for enforcement of the RO.
- h. Ecology will incorporate the BART RO into the Regional Haze SIP revision planned for submission to EPA in 2010.
- i. SWCAA may incorporate the requirements of the BART RO as a state-only condition in the Air Operating Permit during its next renewal. Following EPA’s approval of the Regional Haze SIP and the BART RO, SWCAA may modify the Air Operating Permit to incorporate the requirements of the BART RO as federally-enforceable conditions.
- j. Consistent with 40 CFR 51.302(c)(4)(III)(B) and WAC 173-400-151(4), Ecology agrees not to reanalyze BART for the Centralia Plant in the future or to impose BART limits in the future more stringent than set under this Settlement Agreement.

**Continuous Improvement/Regional Haze Goal for NO<sub>x</sub>**

- 2. Ecology agrees not to require NO<sub>x</sub> emission reductions by the Centralia Plant in addition to the BART limits set under this Settlement Agreement before submission of the comprehensive periodic revision of the Regional Haze SIP due to EPA by July 31, 2018 under 40 CFR 51.308(f) (“2018 Regional Haze SIP”). If TransAlta requests SWCAA to issue a regulatory order limiting the Centralia Plant’s potential to emit NO<sub>x</sub> to a limit of 0.22 lb/million Btu on a 30-day rolling average to be effective on or before January 1, 2017, Ecology agrees not to submit in its 2018 Regional Haze SIP additional NO<sub>x</sub> emission reductions by the Centralia Plant

**B. Early Mercury Emission (Hg) Reductions**

- 1. TransAlta agrees to implement halogenated sorbent injection technology or equally effective alternative technology to reduce mercury emissions from the two boiler units at the Centralia Plant. The major components of the sorbent injection technology are anticipated to include a silo to store the sorbent, a flue gas sorbent injector system, and blower/feeder trains to deliver the sorbent to the injectors. In its sole discretion, TransAlta will select the vendor and specific technology and may select viable, alternative technology.

2. TransAlta's total expenditure on development and implementation of the selected sorbent injection or alternative technology, including capital and test costs, from 2009 through 2011 is projected to be in the range from \$10 to \$14 million. During the Compliance Phase beginning in 2012, TransAlta, at its option, will either: (1) demonstrate an annual (calendar year) removal efficiency of 50 percent of the mercury content of the coal fired in the boilers, or (2). expend \$3 million per year on operation and maintenance costs including, but not limited to, routine operations and maintenance, sorbent costs, byproduct disposal costs associated with mercury capture, and monitoring costs.
3. Beginning in January 2009, TransAlta agrees to monitor mercury emissions using a continuous emission monitoring system. On or before January 2012, the monitoring will comply with 40 CFR Parts 60 and 75 (as in effect for the CAMR).
4. Development Phase
  - a. During 2009, TransAlta will conduct a full scale test on one unit during which control technologies and sorbents will be tested.
  - b. During 2010, TransAlta, at its option, may conduct a long term test with alternative sorbents and operational conditions.
  - c. During 2010 and 2011, TransAlta may perform tests and evaluations, as appropriate, and will perform equipment design, procurement and installation.
  - d. TransAlta will submit quarterly status reports beginning the first quarter in 2009. The reports will be submitted within 30 days following the end of each quarter and will include a summary of hourly, daily and monthly mercury monitoring data for the period.
  - e. Tests affecting emissions will require SWCAA construction permits implementing RCW 70.94.153 but will not be subject to new source review, RACT, or BACT requirements. The permits will be based on the attached sample permit.
5. Compliance Phase
  - a. TransAlta will operate the sorbent injection or alternative technology on a continuous basis commencing January 1, 2012.
  - b. Construction of the sorbent injection or alternative technology will require a SWCAA construction permit but will not be subject to new source review. Said permit will be based on the attached sample permit.
  - c. TransAlta, in its sole discretion, will decide on the method for determining mercury removal efficiency after considering comments by Ecology and SWCAA.
6. TransAlta will submit annual reports to Ecology documenting compliance with cost or mercury removal efficiency requirements beginning March 31, 2013, for the year 2012.
7. TransAlta or its technology vendor may certify that information about the sorbent injection or alternative technology and pilot test results submitted to Ecology is proprietary and confidential under RCW 70.94.205 of the Clean Air Act. Information that is certified as confidential by TransAlta or its vendors is presumed to meet the requirements for confidentiality under RCW 70.94.205 and is therefore presumptively exempt from public disclosure under the Washington Public Records Act and Clean Air Act. However, if Ecology determines that any records certified as confidential are

not exempt from public disclosure, Ecology shall notify TransAlta at least 72 hours prior to release of the records to a member of the public. TransAlta may seek injunctive or other relief to prohibit release of the records. The parties acknowledge that reported emission data is public information as provided by the federal and state Clean Air Acts.

8. As long as TransAlta is in compliance with the mercury reduction provisions of this Agreement, Ecology agrees not to adopt mercury emission reduction regulations applicable to the Centralia Plant until EPA adopts a federal rule. The Early Mercury Reduction provisions of this Settlement Agreement will become null and void upon the effective date of a federal rule or of a state rule adopted to comply with a federal rule applicable to the Centralia Plant's mercury emissions.
9. Ecology agrees to support future proposals and measures by TransAlta to reduce costs of managing, recycling and disposing of ash and other byproducts that have been contaminated through mercury reduction technologies, which may include beneficial use approvals and decreases in the bottom ash to fly ash ratio for disposal in TransAlta's limited purpose landfill.
10. Ecology agrees to support banking credits for TransAlta's early mercury reductions in future federal mercury laws or regulations.
11. In the event that TransAlta does not comply with the early mercury reduction provisions of this Settlement Agreement, Ecology's sole remedy is to terminate those provisions of the agreement.

#### **IV. GENERAL TERMS AND CONDITIONS**

1. The Settlement Agreement will be enforceable as a contract between the Parties subject to the election of remedy provision identified in paragraph III(B)(11).
2. If Ecology fails to adopt the Settlement Agreement's BART provisions in a Regulatory Order, if EPA disapproves the BART limits in the 2010 Regional Haze SIP revision or other proceeding, or if a citizens' suit or other third party lawsuit successfully challenges the BART provisions in the Regulatory Order or a decision by EPA approving the BART provisions in a SIP revision, TransAlta, in its sole discretion, may terminate the Settlement Agreement.
3. TransAlta reserves the right to appeal and litigate actions or decisions by Ecology, EPA, or third parties that are inconsistent with this Settlement Agreement and may assert any grounds or affirmative defense as a basis for such appeal or litigation, including, without limitation, the position that the Centralia Plant is exempt from BART for the reasons explained in TransAlta, "White Paper: Centralia Power Plant 1997 BART Determination Exempts Plant from BART Reanalysis" (June 2007)."
4. Ecology may terminate the provisions of the Settlement Agreement related to Early Mercury Reductions in the event that TransAlta fails to substantially comply with the Development Phase or Compliance Phase requirements. Either Party may terminate the provisions of the Settlement Agreement related to Early Mercury Reductions in the event that a change in state or federal law requires Ecology to take actions inconsistent with the Early Mercury Reductions of this Settlement Agreement.

5. The Parties acknowledge that the terms of the Settlement Agreement may be subject to modification as required by future federal or state legislation. Either Party may terminate the Settlement Agreement in the event that future federal or state legislation subjects the Settlement Agreement to a significant modification. Termination of the Settlement Agreement under paragraph 3 or 4 of this section must be made in writing and delivered to the opposing party's representative.
6. The Parties agree not to challenge the terms and conditions of this Settlement Agreement in any proceeding to enforce this Settlement Agreement before any state administrative body or judicial forum.
7. The Relevant Background statements contained in Section II of this Settlement Agreement are provided as context for the Agreement. Neither party admits nor denies the factual or legal determinations contained in the Relevant Background statements. Any action undertaken by TransAlta pursuant to this Settlement Agreement and any statement, term or provision of this Settlement Agreement agreed to by TransAlta shall not constitute an admission of liability by TransAlta with respect to its operations, or conditions at the Centralia Plant. Both parties expressly reserve, and shall be accorded, the right to challenge any and all Relevant Background statements that are described in this Settlement Agreement in any further proceeding that may take place outside of the confines of this Settlement Agreement and expressly reserve all rights and defenses they have with respect to it or otherwise.
8. This Settlement Agreement was negotiated, mutually drafted and executed by the Parties in good faith. Neither the execution of this Settlement Agreement nor any action taken hereunder, is an admission of any fact, liability or wrongdoing of any kind regarding any matters addressed herein. Accordingly, with the exception of actions to enforce this Settlement Agreement, this Settlement Agreement shall not be admissible in any judicial or administrative proceeding for use against any party over the objection of that party.
9. Nothing in this Settlement Agreement shall be construed to create any rights in, or grant any cause of action to, any person not a party to this Settlement Agreement.
10. This Settlement Agreement constitutes the entire agreement by the Parties and may be modified only upon mutual written agreement of the Parties. The Parties agree that Ecology may extend any deadlines set forth herein, and upon agreement of such extension by the Parties, such extension shall constitute a modification to this Settlement Agreement.
11. This Settlement Agreement applies to and is binding upon the Parties, their agents, employees, successors in interest, and assigns.

**VIII. NOTICES**

Unless otherwise specified, any report, notice, or other communication required under this Settlement Agreement shall be sent to:

For Ecology:                   Stuart Clark, Air Quality Program Manager  
Washington Department of Ecology  
PO Box 47600  
Olympia, WA 98504

For TransAlta:               Richard DeBolt  
USA External Relations  
913 Big Hanaford Road  
Centralia, WA 98531

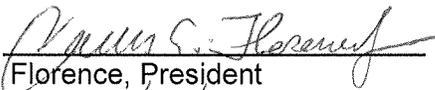
Richard L. Griffith  
Richard L. Griffith, LLC  
1580 Lincoln St., Suite 700  
Denver, CO 80203

**IX. SIGNATORIES**

The Signatories to this Settlement Agreement represent that they have authority to bind their respective parties.

WHEREFORE, Ecology and TransAlta hereby enter into this Settlement Agreement effective as of the date executed by the Director of Ecology.

**FOR TRANSALTA CENTRALIA  
GENERATION LLC**

By:   
Lou Florence, President  
Date: 5/19/10

**FOR THE STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

By:   
Ted Sturdevant, Director  
Date: 5/25/10