

Lapointe, Jeannine

From: Spencer-Famous, Marcia
Sent: Friday, October 01, 2010 8:38 AM
To: Todd, Fred
Subject: FW: Environmental and Energy Report - Stetson I
Attachments: Emissions as of 2009-12-31.xlsx

From: Timothy Clapp [mailto:tclapp@firstwind.com]
Sent: Friday, February 26, 2010 3:26 PM
To: Spencer-Famous, Marcia
Cc: Bonnie Lind; Matt Kearns; Dave Cowan; Browne, Juliet; Brooke Barnes
Subject: Environmental and Energy Report - Stetson I

Marcia: Our Stetson permit states that “[t]he permittee shall submit to the Commission annually for the first two years of operation a report detailing the project’s contribution to the State’s environmental and energy policy objectives. The report must include total megawatt hours generated and an estimate of avoided pollution by project operation.”

I’ve attached an excel worksheet that shows the MWh generated as of 12/31/2009 since the commercial operation date of January 23, 2009. This table also provides numerous pollutant avoidance data as well as household equivalent estimates, all of which are in-line with Maine’s environmental and energy policy objectives.

Pollutant avoidance estimates provided in our initial application were produced from the WRI calculator previously found at <http://www.wri.org>; however, this calculator is no longer provided by WRI. Instead, we shifted to the EPA eGRID data that provides us with additional information on a NERC sub-regional level. We find this more applicable than the previous, larger picture of a global approach that was provided by WRI.

The Emissions & Generation Resource Integrated Database (eGRID) is a comprehensive inventory of environmental attributes of electric power systems. As a source of emissions data for the electric power sector, eGRID is based on available plant-specific data for all U.S. electricity generating plants that provide power to the electric grid and report data to the U.S. government. Data reported include generation in megawatt-hour (MWh); resource mix (for renewable and nonrenewable generation); emissions in tons for carbon dioxide (CO₂), nitrogen oxides (NO_x), and sulfur dioxide (SO₂); emissions in pounds for methane (CH₄), nitrous oxide (N₂O) and mercury (Hg); emission rates for CO₂, NO_x, and SO₂ (in both pounds per megawatt-hour [lb/MWh] and pounds per million British thermal unit [lb/MMBtu]) and for CH₄, N₂O, and Hg (in pounds per gigawatt-hour [lb/GWh] and pounds per billion Btu [lb/BBtu]); heat input in MMBtu; and nameplate capacity in megawatts (MW). eGRID reports this information on an annual basis (as well as by ozone season for NO_x emissions and emission rates, generation, and heat input) at different levels of aggregation (boiler, generator, plant, companies, and grid regions of the country).

Data users should take note that eGRID’s emissions and emission rates are calculated at the generation source level, as they are derived for individual power plants. If eGRID’s output emission rates (in lb per M[G]Wh) are applied at the retail source level (i.e., by assigning emissions to usage by retail customers), emissions should generally be revised upwards by an appropriate factor to reflect transmission and

distribution line losses. eGRID data do not include imports – just plant generated net MWh, MMBtu, and emissions.

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Stetson Wind Farm
 Since COD January 23, 2009

Year to Date												
As of	12/31/2009						Mercury	lbs of CO2 in terms of	lbs of CO2 in terms of	# of Household equivalents Average	BBL's of Oil Equivalent	Tons of Coal Equivalent
MWh Generated	CO2 (lbs)	CO2 (tons)	NOX (lbs)	NOX (tons)	SO2 (lbs)	SO2 (tons)	(Hg) lbs	# of Cars	# of SUVs	Residential Customer		
138,969	115,262,482	57,631	119,930	60	327,870	164	1.4	10,067	7,188	19,458	258,323	73,804