

## DTE Energy



*DTE Energy Resources*

November 28, 2011

The Honorable Lisa Jackson  
USEPA Administrator  
USEPA Headquarters  
Ariel Rios Building  
1200 Pennsylvania Avenue, N. W.  
*Mail Code:* 1101A  
Washington, DC 20460

**RE: Petition to increase allowances for DTE Stoneman L.L.C. under the CSAPR FIP for the NO<sub>x</sub> Annual, NO<sub>x</sub> Ozone Season, and SO<sub>2</sub> Annual programs (76 Fed. Reg. 48208 (Aug. 8, 2011); EPA Docket No. EPA-HQ-OAR-2009-0491)**

DTE Stoneman LLC reviewed the USEPA proposed "Revisions to Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone" dated October 6, 2011 against their concerns with the Cross State Air Pollution Rule expressed in the Company's petition dated October 7, 2011. The proposed revisions did not address or resolve any of the referenced concerns and for that reason, DTE Stoneman, LLC is resubmitting this petition to the USEPA Administrator requesting reconsideration of the allowance allocation provided to its facility located in Cassville, Wisconsin. We believe the facility was unfairly treated by providing very little allowances to cover its projected emissions after the repowering using 100% wood biomass renewable fuel. The Boilers at the DTE Stoneman facility, boilers B1 and B2, are treated by USEPA as existing units while they should be classified as "New Units" and allocated SO<sub>2</sub> and NO<sub>x</sub> allowances to cover 100% of their projected emissions according to the "New Unit" allocation methodology. The allowances provided by EPA, under the current approach, is well short of what the plant needs to cover its projected emissions as shown in the summary table below.

### 2012

SO <sub>2</sub> Annual	NO <sub>x</sub> Annual	NO <sub>x</sub> Ozone
Projected Emissions: 411 tpy	Projected Emissions: 560 tpy	Projected Emissions: 233 tpy
Allowances: 132 tpy	Allowances: 49 tpy	Allowances: 18 tpy
Short: 279 tpy (68% short)	Short: 511 tpy (91% short)	Short: 215 tpy (92% short)

### 2014

SO <sub>2</sub> Annual	NO <sub>x</sub> Annual	NO <sub>x</sub> Ozone
Projected Emissions: 411 tpy	Projected Emissions: 560 tpy	Projected Emissions: 233 tpy
Allowances: 65 tpy	Allowances: 47 tpy	Allowances: 18 tpy
Short: 346 tpy (84% short)	Short: 513 tpy (92% short)	Short: 215 tpy (92% short)

It is DTE Stoneman's position that the repowered renewable energy plant that underwent New Source Review permitting and resulted in fuel switching to wood biomass with low sulfur content and installation of SNCR and OFA as BACT for NO<sub>x</sub> control, be afforded sufficient allowances to cover 100% of its projected emissions (see table above) or significantly increase its allowance allocation under the current approach by relying on projected heat input. The basis for this petition, besides the severe economic hardship that the current EPA approach will impose on the facility, are the errors we identified in EPA's application of the allowance allocation methodology and include:

- Classification of the units as "existing" versus "new"
- Erroneous inputs (e.g. projected actual emissions for 2012 and 2014) to the IPM model under the current approach
- Emissions Reductions already achieved through New Source Review consistent with intent of the CSAPR rule
- If classified as "existing", EPA should not rely on historical heat input from the facility as this data does not reflect future plans for plant operation. It should rely on projected heat input.

### **Severe Economic Hardship**

USEPA's current allocation as finalized will unfairly impose an economic hardship on a plant that invested significant capital into the facility, the community, and in establishing a wood biomass renewable fuels market which created jobs during our current weak economic environment. DTE Stoneman invested significant capital to reconstruct and repurpose an aging coal plant and create renewable power for the plant's customer in Wisconsin. This is a merchant power plant. Purchasing the allowances necessary to operate the plant and to retrofit utility scale emission controls such as SCR and/or wet scrubber is not economical, both in initial capital costs and continuing maintenance costs for a facility of this size. This plant cannot file a rate case to recover the cost as a utility would be able to. Therefore, this rule imposes an unfairly severe economic hardship on the plant.

### **DTE Stoneman Repowering and Classification of Boilers as "New Units"**

The facility consists of two 340 mmbtu/hr rated boilers serving through cross connected steam headers, 33 MW and 18 MW generators. Emissions are through a common stack. The two units were originally built in 1949 and 1951 and designed to burn coal. DTEES purchased the facility in May 2008. Prior to the purchase, the previous owner operated the plant intermittently, selling the electricity through the Midwest Independent System Operator (MISO) at market rates. After the facility was purchased by DTEES, the units were operated intermittently to burn down the remaining coal pile in preparation for the conversion from coal to wood biomass firing. The remaining coal pile was depleted in March 2009. The facility was shut down during the March 2009 to August 2010 period while the units were permanently disabled by removal of the lower half of each unit and

replacing boiler tubes. The units were replaced by new stoker grate units to enable combustion of wood biomass. The units underwent New Source Review permitting which required as BACT the installation of add-on emission controls for NO<sub>x</sub> including SNCR and OFA. The conversion of the plant from coal to wood biomass provided significant reduction in SO<sub>2</sub> emissions due to the low sulfur content of wood biomass. These new stoker grate units started the commissioning process on July 28, 2010 and began commercial operation on October 8, 2010. Since commercial operation began after January 1, 2010 the units should receive allowances from the new unit set aside and not be allocated allowances as existing units.

### **Erroneous Input to IPM Model**

The IPM modeling assumes an incorrect amount of NO<sub>x</sub> and SO<sub>2</sub> emissions in 2012 and 2014. The "ptipm\_2012" tab has 110 NO<sub>x</sub> tons per year for both Point IDs B21 and B22. This value should be 280 NO<sub>x</sub> tons per year. The "ptipm\_2012" tab also has 44 SO<sub>2</sub> tons per year for both Point IDs B21 and B22. This value should be 205 SO<sub>2</sub> tons per year. The "ptipm\_2014" tab has 184 NO<sub>x</sub> tons per year for both Point IDs B21 and B22. This value should be 280 NO<sub>x</sub> tons per year. The "ptipm\_2014" tab has 74 SO<sub>2</sub> tons per year for both Point IDs B21 and B22. This value should be 205 SO<sub>2</sub> tons per year. The "ptipm\_2014ctrl" tab has 184 NO<sub>x</sub> tons per year for both Point IDs B21 and B22. This value should be 280 NO<sub>x</sub> tons per year. The "ptipm\_2014ctrl" has 74 SO<sub>2</sub> tons per year for both Point IDs B21 and B22. This value should be 205 SO<sub>2</sub> tons per year.

### **Intent of CSAPR**

DTE Stoneman should receive significantly higher allowances than currently provided. The intent of the rule and allowance allocation approach EPA took is not to penalize units for choosing cleaner fuels or installing pollution controls. DTE Stoneman converted the plant to 100% wood biomass, reduced fuel sulfur content and installed SNCR and OFA as BACT for NO<sub>x</sub> control. Wood biomass is a cleaner burning fuel than coal, which resulted in significantly reduced SO<sub>2</sub> emission rate. It also installed SNCR and overfire air as add-on emission controls to reduce NO<sub>x</sub> emissions. With the fuel conversion, the use of SNCR and overfired air, the current EPA approach in allocating allowances provided DTE Stoneman very little to cover future emissions. DTE Stoneman previously fulfilled the intent of the rule by converting to biomass and now is being asked to buy a significant number of allowances and retrofit with additional pollution controls that are not economical and likely not technically feasible.

### **Projected Heat Input vs. Historical Heat Input**

DTE Stoneman should receive significantly higher allowances than currently provided. The allocation method EPA chose for the final CSAPR consists of the use of historical heat input to allocate allowances instead of projected heat input. Though this approach may make sense for units that have not undergone reconstruction during the look back

The Honorable Lisa Jackson  
November 28, 2011  
Page 4 of 4

period, it is not a logical way to appropriately allocate allowances for DTE Stoneman. The plant was unfairly penalized for converting the plant from 100% coal to 100% Biomass and for installing SNCR and OFA. The reconstruction occurred between April 2009 and July 2010, during the baseline period. Prior to the reconstruction, the facility did not operate often combusting coal (capacity factors in the 3% to 17% range). EPA should allocate based on DTE Stoneman's projected emissions using limited operation data from 2010 and extrapolating for a full year operation and projected capacity factor rather than using the highest 3-yr average between 2006 and 2010 which is not representative of the biomass plant we currently have and future operating conditions.

Due to the extraordinary reasons listed above, DTE Stoneman should receive a significant increase in the allocated allowances to be consistent with the intent of the rule and not cause severe economic hardship to this renewable energy facility. Your consideration is appreciated. Please contact me if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink that reads "Michelle Kolozovary for". The signature is written in a cursive style.

Fadi K. Mourad, P.E.  
Designated Representative – DTE Stoneman, LLC  
Director of Environmental Affairs - DTE Energy Resources

C: Mr. Steve Sorrentino - DTE Energy Services  
Mr. Richard Nelson - DTE Stoneman, L.L.C.  
Ms. Kyra Fleming - DTE Energy Services