

**Subject:** Re: Form submission from: Clean Air Markets Power Sector Modeling Contact Form form  
**Date:** Monday, September 17, 2018 at 3:32:10 PM Eastern Daylight Time  
**From:** Jay Duffy  
**To:** John Thompson

On 8/23/18, 12:23 PM, "Kayin, Serpil" <[Kayin.Serpil@epa.gov](mailto:Kayin.Serpil@epa.gov)> wrote:

Dear John:

Thank you for bringing this to our attention. There was a documentation error in v6 that we have now corrected.

In IPM v5.13, we implemented numbers that were estimated by EPA engineers for the VOM costs for CCS retrofits at the plants. In IPM v6, we have adopted these costs from Sargent & Lundy Report (Attachment 6-1 of the documentation) but made an error and presented the numbers in Table 6-2 without subtracting the CO2 transportation, storage and monitoring costs. Table 6-2 intends to tabulate the retrofit costs at the plants solely. CO2 transportation and storage are accounted for separately. Once they are on the same basis, v5.13 and v6 VOM costs for CCS retrofits (aka table 6-2 in each version) in coal plants are very similar.

Attached is the revised Table 6-2 of v6. We are also updating our documentation on the website, <https://www.epa.gov/airmarkets/documentation-epas-power-sector-modeling-platform-v6>.

Sincerely,  
Serpil Kayin

Serpil Kayin, PhD  
Clean Air Markets Division  
Program Development Branch  
202-343-9390

-----Original Message-----

From: [drupal\\_admin@epa.gov](mailto:drupal_admin@epa.gov) [[mailto:drupal\\_admin@epa.gov](mailto:drupal_admin@epa.gov)] On Behalf Of IPM Inputs and Documentation  
Sent: Tuesday, August 07, 2018 10:53 AM  
To: Kayin, Serpil <[Kayin.Serpil@epa.gov](mailto:Kayin.Serpil@epa.gov)>  
Subject: Form submission from: Clean Air Markets Power Sector Modeling Contact Form form

Submitted on 08/07/2018 10:52AM  
Submitted values are:

Your Name: John Thompson  
Your Organization: Clean Air Task Force  
Phone: 618 203-6233  
Your E-mail Address: [jthompson@catf.us](mailto:jthompson@catf.us)  
Category: IPM Inputs and Documentation  
Subject: CCS VOM Retrofit Assumptions

Your Comment: I'd like some insight on the difference between VOM costs for CCS coal retrofits found in Table 6-2 of v6. The VOM costs range from 13.92 - 21.2 mills/kWh depending on unit size and heat rate. The VOM found in v5.13 for CCS coal retrofits is only 3.2 mills/kWh (Table 6-1). This is a

v5.1.3 for CCS coal retrofits is only 3.2 mm3/kWh (table 6-1). This is a

4-7 fold difference. Why are these values so different? Are they on a different basis? For example, are the v6 values incremental (like v5.1.3) or not? Could v6 reflect a capacity penalty? Thanks for your answer.