VDEQ Conceptual Description for the Inclusion of Distributed Generation Units in Base Year and Future Year Modeling Efforts

Issue:

VDEQ has identified the need to examine more closely in modeling studies the effects on ozone air quality of distributed generation units.

Background:

Distributed generation units are mainly internal combustion engines that participate in some type of demand response program. These are small units, each usually no more than 2 or 3 megawatts in capacity, and they generally run on distillate fuel oil Most are permitted for well under 100 tons of NOx emissions annually and do not run frequently.

Annual emissions of NO_X are usually not very large from these units. However, ozone season daily emissions estimates from previous ozone SIPs show that facilities that have one or more of these types of units can be quite significant NO_X emitters when examined on an **ozone season daily basis**. For instance, in 2002 in the Northern Virginia portion of the metro DC ozone nonattainment area, the inventory estimate for point sources includes about 60 tons/day of NO_X. EGU's account for 40 tons/day of NO_X. Distributed generation units account for just over 10 tons/day NO_X. In 2002 for the Northern Virginia region, distributed generation units were the second largest point source NO_X-emitting category, and many new facilities of this type have been permitted since 2002.

In Northern Virginia especially, but across the Commonwealth, demand response programs are gaining in popularity, and utilities are actively recruiting participants. Such demand response programs are very helpful in maintaining the integrity of the power grid during high demand days or times when power capacity in small areas with transmission constraints is being taxed. However, older units can have very high emissions, and control strategies do exist to significantly reduce NO_X from these units.

Previous modeling efforts minimized the effects of these units on air quality because the annual emission rates were not very large (less than 100 tons/year NO_X) and because the default profile of 365 days of operation annually was applied to the annual emission rate in the modeling inventories. This calculation methodology greatly minimized the impacts from these units.

VDEQ would like to facilitate the review of these units for potential future control strategies by creating a profile for distributed generation that more accurately reflects operating conditions. Such a profile will limit operations of such units to a smaller, more representative number of days during the year and to a limited number of hours during each day, as dictated by actual operating data. NOx emissions on a daily basis will therefore increase as compared to the daily NO_X emissions based on the default profile. NO_X emissions will also vary from day to day, depending on the number of hours of

operation for that day. Once these units are more accurately represented in base year emissions inventories and modeling platforms, control strategy runs may be performed to determine if controlling these units will improve ozone air quality in the Northern Virginia/metro DC area.

Methodology:

To more accurately characterize emissions from distributed generation, VDEQ intends to follow these steps in the inventory and modeling process.

1. Inclusion of DG units in the Emissions Inventory: The first step is to ensure that as many distributed generation units are included in the base year inventory as possible. Often agencies use 10 tons/year of any criteria pollutant as a cutoff for inclusion of point sources in the point source modeling inventory. VDEQ used a 10 ton/year level to ensure that as many units were captured as possible, while screening out sources with emissions that are too small to be of any consequence. However, VDEQ also included stack/point/segment combinations identified by the regional office or by EIA data as distributed generation units, regardless of emissions rates. These line items were identified by county plant identifiers as well as stack, point, segment identifiers. 2007 data were retrieved from CEDS on these line items, and this data was provided to the regional planning organization (MARAMA) as well as the base year emissions inventory contractor (MACTEC). A listing of the identified DG units in the 2007 base year inventory is contained in Table 5. The table identifies if the unit was originally part of the 2007 inventory or if it was added to the inventory as a DG unit.

2. Identification of DG units: VDEQ also intends to maintain a listing of stack/point/segment combinations that represent DG units both statewide and in the Northern Virginia area. The emissions profile created from base year (assumed to be 2007) operations data will be applied to all pollutant emissions for each unit identified as a DG unit. This listing will also be helpful when applying a NO_X control strategy reduction factor.

   At least one regional office, the Northern Regional Office (NRO), has a detailed listing of registration numbers and units that are or may be distributed generation units. Additionally, EIA data can be used to identify other units. Analysis of the EIA data for Virginia units has already been performed to ensure that these units are in the Virginia database. CEDS data regarding hours of operation were examined in creating the listing in Table 5. If a unit's hours of operation as listed in CEDs indicated significantly more operational time than would normally be expected by a distributed generation unit, then that unit was removed from the listing and will not have the distributed generation profile applied in the 2007 base year regional air quality modeling. Figure 1 below shows the locations of these facilities in the Commonwealth.

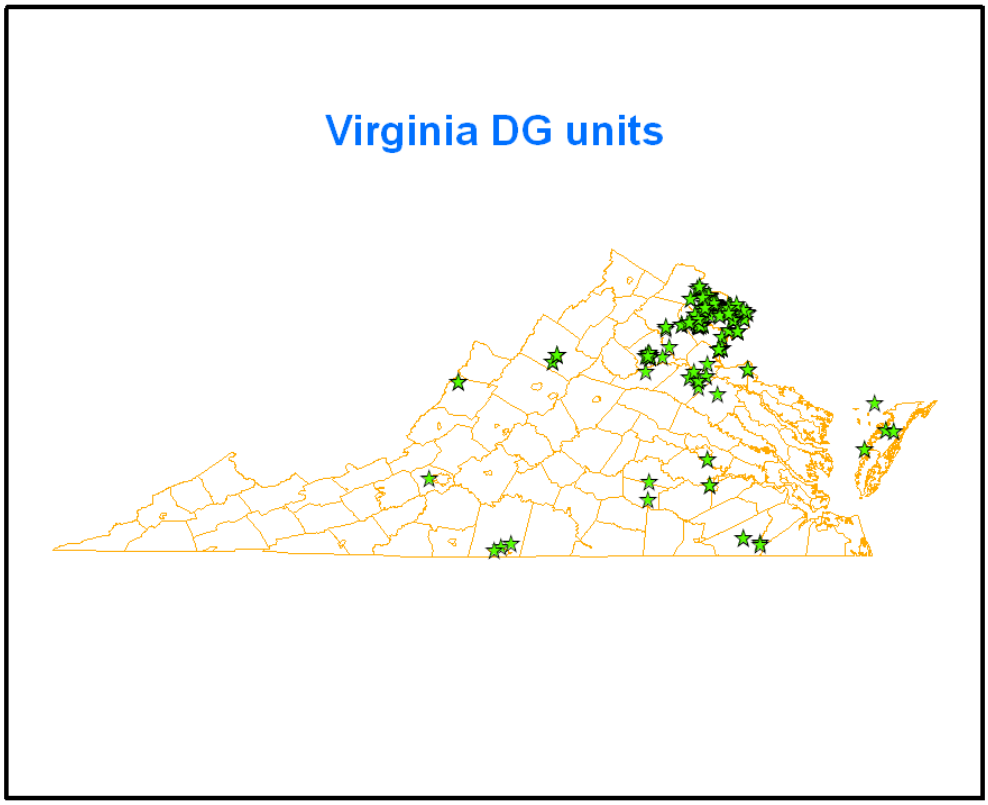

Figure 1: Location of DG Units in the Commonwealth

3. Inventory Review: After a listing of potential DG units was created from EIA and regional office input, the 2007 inventory data for all line items were examined and modified as follows:

3.a. *Stack Parameters:* Stack data for each stack/point/segment combination were examined to ensure all necessary modeling parameters exist in the database. A point to note is that many IC engines have horizontal stacks and are equipped with some type of sound muffler. Newer units are more often equipped with vertical stacks. For any stack with an obstructed or non-vertical discharge, the exit gas velocity was changed to 0.001 meters/second (0.003 feet/second). For any stack with no stack data due to the stack being labeled as a fugitive emissions source, the height was changed to 15 feet, the diameter was changed to 1.5 feet, the stack temperature was changed to 900 deg F, the stack configuration was changed to a horizontal discharge, and the exit gas velocity was changed to 0.001 meters/second (0.003 feet/second). A few line items did not have latitude and/or longitude data in the correct decimal format. That information was provided from the UTM converter in CEDS.

3.b. *Non DG operations:* Care was taken to remove from the inventory any engines that may be associated with rock processing plants, asphalt plants, or concrete plants. Also, for facilities that were beneath the 10 tons/year cut off and therefore would not normally be included in the 2007 point source modeling inventory, any line item in that facility's inventory that was not related to DG operations was deleted and not added to the 2007 point source modeling inventory.

3.c. *Non-operational units:* For facilities that were beneath the 10 tons/year threshold and therefore not normally included in the 2007 point source modeling inventory, any distributed generator line item with zero emissions was deleted, even if the line item was considered to be planned for operations. Also deleted from the DG inventory was any line item identified as DG and normally in the 2007 point source modeling inventory but that had zero 2007 emissions.

3.d. *Emissions inventory:* The 2007 CEDS data only included the filterable portion of the particulate emissions from all units. Additionally, some DG units were coded with both PM_{10} and $PM_{2.5}$, and some were coded with either PM_{10} or $PM_{2.5}$. Some were also coded without any mention of PM_{10} and $PM_{2.5}$. The main thrust of this inventory and modeling exercise is to examine DG units' effect on ozone concentrations. However, since augmented data to help fill in data gaps were available from MACTEC, the augmented data containing filterable and condensable PM emissions fractions as well as data for PM_{10} and $PM_{2.5}$ were included in the final DG inventory.

4. Creation of an emissions profile: VDEQ used 2007 operations data obtained from Dominion Virginia Power for their demand response programs (including the Manassas VMEA program) as well as data obtained from AOL, NOVEC, and duPont Fabros to create a 2007 profile for when these units generally operated. To simplify the creation of the profile, units are assumed to be operating at full capacity whenever they are being used. The generic profile will be applied to all units identified as DG units in the 2007 emissions inventory for Virginia.

5. Application of the emissions profile: VDEQ developed a generic profile in a SMOKE readable format for each pollutant listed in the emissions inventory. This profile simulates a step function, turning on and off the identified generation units depending on their operational mode. VDEQ passed on this profile to the emissions inventory contractors and requested that it be included in both base and future inventories for SMOKE modeling.

   Figure 2 below graphically presents the application of the chosen profile during May of 2007 on an example unit. Units are assumed to be on or off, and when on, the units are assumed to be operating at the same load and emissions rates.

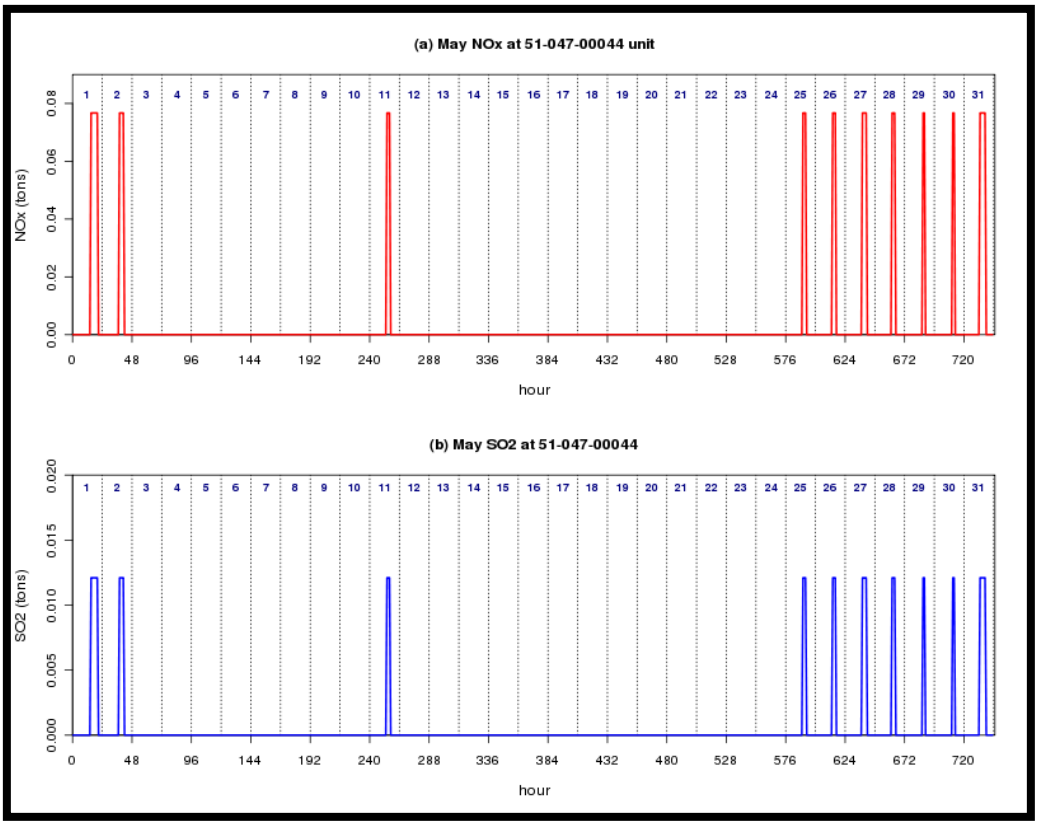

Figure 2: May 2007 DG Operations for 51-047-00044

6. Future year control strategies: In future years, control strategies that assume up to 90% -95% NO_X reduction can be applied to the distributed generation units that are not already controlled.

7. Growth Factors: In previous emissions inventory work, growth factors for these types of units were created using E-GAS, which underestimated the growth of this source sector between 2002 and 2009. One issue for future consideration is the creation of a better estimate of growth between base and future years for this source sector.

Development of the Emissions Profile:

Table 4 below summarizes the information collected from a variety of sources in the distributed generation sector. Dominion provided 2007 data for its stand-by generation (SG) program. The program is also referred to as a curtailable service and stand-by generation program. The program requests that facilities reduce load such as shutting down a production line or requests that existing generation be brought on line to peak shave or sell power back to the grid. Dominion also provided 2007 operations data for the VMEA, which is a co-op with the City of Manassas. These units can operate as stand-by generation or peak shavers.

The NRO staff provided data gathered during the execution of several enforcement actions against distributed generation units. Data from an America On-Line (AOL) data center site, a duPont Fabros (DFT) data center site, and Northern Virginia Electric Cooperative (NOVEC) are listed. These facilities have large amounts of generation on site, sometimes totaling more than 25 MW of capacity. The purpose of the generation at data centers is to provide back up power to ensure that data center operations maintain a high level of up time, often required in contracts to be better than 99.9% reliable. These facilities also have lucrative contracts to use this generation in a distributed generation program. It should be noted that as a result of the enforcement actions brought by NRO, many of these units have been retrofitted with either open or closed loop SCR to reduce NO_X emission by 80%-90%.

Table 4 demonstrates that in 2007, a significant amount of overlap existed for days and times when these units were in operation. Also, four days (grey highlighted rows) contain two separate time periods when units were called to participate in various programs. To create a generic profile, Table 4 examines two methods for analyzing the data.

The first method (option 1) includes every day that any program operated according to the known data. For any day that a program operated, the data for the day with the most hours of operation was included in the generic profile. These columns are labeled "Generic Profile, Any Run Day" in Table 1. When including all days for which data exist, the generic profile for 2007 would contain 514 hours of operation over 111 days during the year. When compared to the maximum that any one particular program operated (93 days, and 314 hours), this methodology tends to overestimate the amount of time any unit is on line. However, as shown in the examples below, the results are quite a bit higher than the application of the default profile.

The second method (option 2) includes every day that any <u>two</u> programs operated according to the known data. For any day that two programs operated, the data for the day with the most hours of operation was included in the generic profile. These columns are labeled "Generic Profile, Days with Two or More Data Points." When including these parameters in the make-up of the generic profile, the profile for 2007 would contain 381 hours and 92 day of operation. This methodology seems to better represent the maximum program times and days although it may still overestimate the number of hours of operation in the stand-by generation program operated by Dominion. Overestimation of the number of hours results in underestimation of daily and hourly emission rates for NO_X.

As an example of how each profile may be applied, assume a facility has three units, each 2 MW. Two units reported emitting 10 tons of NOx in 2007, each. One unit emitted 5 tons of NOx in 2007.

If the default, 365 day, 8760 hrs/year operational profile was assumed, the units would have the following emission rates in the modeling analysis:

Table 1: Example Emissions from a Hypothetical DG Facility, using 365 days/year

Unit	Annual NOx	Daily NOx
Unit 1	10 tons NOx/year	0.027 tons NOx/day
Unit 2	10 tons NOx/year	0.027 tons NOx/day
Unit 3	5 tons NOx/year	0.014 tons NOx/day
Total NOx in 2007	*25 tons NOx*	*0.068 tons NOx/day*

The calculation is as follows:

10 tons NOx/yr * 1 yr/8,760 hrs * 24 hrs/day = 0.027 tons NOx/day

Each day and each hour would have exactly the same amount of emissions.

If the first generic profile is used (option 1), 514 hours are divided up over 111 days. The maximum number of hours of operation in any day is 16, which occurs in December. Twelve hours is the maximum for the ozone season and occurs August 8th from 11:00 to 23:00. For this ozone season example, 12 hours will be used:

Table 2: Example Emissions from a Hypothetical DG Facility, using 111 days/year

Unit	Annual NOx	Daily Ozone Season NOx
Unit 1	10 tons NOx/year	0.23 tons NOx/day
Unit 2	10 tons NOx/year	0.23 tons NOx/day
Unit 3	5 tons NOx/year	0.12 tons NOx/day
Total NOx in 2007	*25 tons NOx*	*0.58 tons NOx/day*

10 tons NOx/yr * 1 yr/514 hr * 12 hours/day = 0.23 tons NOx/day

In the model, these hourly and daily emissions for August 8th would be assigned to 11:00 through 23:00. Each day would vary, as noted in Table 4.

If the second generic profile is used (option 2), 381 hours will be divided over 92 days. Again, August 8th provides the summer day with the most hours of operation (12), so this day will be used for comparison:

Table 3: Example Emissions from a Hypothetical DG Facility, using 92 days/year

Unit	Annual NOx	Daily Ozone Season NOx
Unit 1	10 tons NOx/year	0.31 tons NOx/day
Unit 2	10 tons NOx/year	0.31 tons NOx/day
Unit 3	5 tons NOx/year	0.16 tons NOx/day
Total NOx in 2007	*25 tons NOx*	*0.78 tons NOx/day*

10 tons NOx/yr * 1 yr/381 hours * 12 hours/day = 0.31 tons NOx/day

This methodology is not nearly as accurate a procedure for assigning emissions as is the CAMD emissions data from CEMS. However, at the current time, it may be the best methodology available for better representing the emissions from the distributed generation category in the base year emissions inventory.

After review of the data, option 2 above was chosen to create the profile for the DG units. This approach omits days from the profile where only one system was running, which reduces the time operated by 19 days. It spreads the emissions over 381 hours in the year rather than 514 hours. This total hourly value is higher than any of the hourly operations of any of the systems as shown in Table 4 so that the estimates on an hourly basis from each system should be conservative, with little overestimation of hourly emission rates.

Table 4: Operational Data from Selected VA Companies Engaged in Distributed Generation

DATE	NOVEC			AOL			DFT	Dominion-SG			Dominion-VMEA			Generic Profile, Any Run Day (option 1)			Generic Profile, Days with 2 or more data points (option 2)		
	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time
1/3/2007	2	7:00	9:00	2	0700	0900	2.5							2	0700	0900	2	0700	0900
1/10/2007	1.75	7:00	8:40	1.5	0700	0830	2							1.75	7:00	8:40	1.75	7:00	8:40
1/10/2007	3	18:00	21:00	3	1800	2100	3.6							3	18:00	21:00	3	18:00	21:00
1/11/2007	1.5	7:00	8:30	1.5	0700	0830	2							1.5	7:00	8:30	1.5	7:00	8:30
1/17/2007	1.25	7:00	8:15	1	0700	0800	1.7							1.25	7:00	8:15	1.25	7:00	8:15
1/18/2007	2	7:00	9:00	2	0700	0900	2.6							2	7:00	9:00	2	7:00	9:00
1/26/2007	2	7:00	9:00	1.5	0700	0830	2.1							2	7:00	9:00	2	7:00	9:00
1/30/2007	1.25	7:00	8:15	1	0700	0800	1.7							1.25	7:00	8:15	1.25	7:00	8:15
2/1/2007	2	7:00	9:00	2	0700	0900	2.6							2	7:00	9:00	2	7:00	9:00
2/1/2007	2	18:00	20:00	2	1800	2000	2.6							2	18:00	20:00	2	18:00	20:00
2/5/2007	3	7:00	10:00	2	0700	0900	2.6	5	600	1100	4	500	900	5	600	1100	5	600	1100
2/5/2007	3	18:00	21:00	3	1800	2100	3.5							3	18:00	21:00	3	18:00	21:00
2/6/2007	3.25	6:00	9:15	3	0600	0900	3.6	5	600	1100	5	500	1000	5	500	1000	5	500	1000
2/16/2007	1.25	7:00	8:15	2	0700	0900	1.7	5	1700	2200				5	1700	2200	5	1700	2200
3/1/2007	3	6:00	9:00	3	0600	0900	3.4							3	6:00	9:00	3	6:00	9:00
3/5/2007	2.5	6:00	8:30	2.5	0600	0830	3							2.5	6:00	8:30	2.5	6:00	8:30
3/5/2007	3	18:00	21:00	3	1800	2100	3.6							3	18:00	21:00	3	18:00	21:00
3/6/2007	3	6:00	9:00	3	0600	0900	3.8							3	6:00	9:00	3	6:00	9:00
3/6/2007	2	19:00	21:00	2	1900	2100	2.5							2	19:00	21:00	2	19:00	21:00
3/7/2007	2.75	6:00	8:40	2.5	0600	0900	3							2.75	6:00	8:40	2.75	6:00	8:40
3/7/2007	2	19:00	21:00	2	1900	2100	2.3							2	19:00	21:00	2	19:00	21:00
3/8/2007	2.75	6:00	8:45	2.5	0600	0830	3.3							2.75	6:00	8:45	2.75	6:00	8:45
3/9/2007				2.25	0600	0800								2.25	0600	0800			
4/6/2007	3	7:00	10:00	3	0700	1000	3.7							3	7:00	10:00	3	7:00	10:00
4/7/2007	3	7:00	10:00	3	0700	1000	3.7							3	7:00	10:00	3	7:00	10:00
4/7/2007	1	20:00	21:00	1	2000	2100	1.6							1	20:00	21:00	1	20:00	21:00
4/8/2007	3	7:00	10:00	3	0700	1000	3.7							3	7:00	10:00	3	7:00	10:00
4/9/2007	2	7:00	9:00	2	0700	0900	2.6							2	7:00	9:00	2	7:00	9:00

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DATE	NOVEC			AOL			DFT	Dominion-SG			Dominion-VMEA			Generic Profile, Any Run Day (option 1)			Generic Profile, Days with 2 or more data points (option 2)		
	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time
4/10/2007	2	7:00	9:00	2	0700	0900	2.5							2	7:00	9:00	2	7:00	9:00
4/11/2007	1.5	7:00	8:20	2	0700	0900	1.7							2	0700	0900	2	0700	0900
4/25/2007	5	16:00	21:00	5	1600	2100	5.7							5	1600	2100	5	1600	2100
5/1/2007	5.5	16:00	21:35	5	1600	2100	5.5							5.5	16:00	21:35	5.5	16:00	21:35
5/2/2007	4	15:00	19:00	4	1500	1900	4.5							4	15:00	19:00	4	15:00	19:00
5/11/2007	3	15:00	18:00	3	1500	1800	3.5							3	15:00	18:00	3	15:00	18:00
5/25/2007	3	15:00	18:00	3	1500	1800	3.4							3	15:00	18:00	3	15:00	18:00
5/26/2007	3	15:00	18:00	3	1500	1800	3.5							3	15:00	18:00	3	15:00	18:00
5/27/2007	3	15:00	18:00	3.75	1500	1800	3.6							3.75	1500	1800	3.75	1500	1800
5/28/2007	3	15:00	18:00	3	1500	1800	3.3							3	15:00	18:00	3	15:00	18:00
5/29/2007	2	16:00	18:00	2	1600	1800	2.5							2	16:00	18:00	2	16:00	18:00
5/30/2007	2	16:00	18:00	2	1600	1800	2.4							2	16:00	18:00	2	16:00	18:00
5/31/2007	5	14:00	19:00	4	1400	1800	4.4							5	14:00	19:00	5	14:00	19:00
6/1/2007	2	16:00	18:00	2	1600	1800	2.4							2	16:00	18:00	2	16:00	18:00
6/8/2007	5	15:00	20:00	3	1500	1800	3.5	7	1400	2100	9	1200	2100	5	15:00	20:00	5	15:00	20:00
6/13/2007				3.75	1630	2015								3.75	1630	2015			
6/18/2007	4	16:00	20:00	2	1600	1800	2.4	7	1400	2100	9	1200	2100	9	1200	2100	9	1200	2100
6/19/2007	5	15:00	20:00	3	1500	1800	3.4	7	1400	2100	9	1200	2100	9	1200	2100	9	1200	2100
6/26/2007	4	15:00	19:00	2	1500	1700	2.5	7	1400	2100	8	1200	2000	8	1200	2000	8	1200	2000
6/27/2007	5	15:00	20:00	3	1500	1800	3.5	7	1400	2100	8	1200	2000	8	1200	2000	8	1200	2000
6/28/2007	1	15:00	16:00	1	1500	1600	1.5	7	1400	2100	7	1300	2000	7	1300	2000	7	1300	2000
7/8/2007	4	16:00	20:00	2	1600	1800	2.4							4	16:00	20:00	4	16:00	20:00
7/9/2007	6	14:00	20:00	3	1500	1800	3.5	7	1400	2100	8	1100	1900	8	1100	1900	8	1100	1900
7/10/2007	5	15:00	20:00	4	1500	1900	4.5	7	1400	2100	7	1300	2000	7	1400	2100	7	1400	2100
7/16/2007								7	1400	2100	7	1300	2000	7	1400	2100	7	1400	2100
7/17/2007								7	1400	2100				7	1400	2100			
7/18/2007											8	1200	2000	8	1200	2000			
7/19/2007								7	1400	2100				7	1400	2100			

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	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time
7/29/2007				3.25	1600	1915								3.25	1600	1915			
8/1/2007	5	15:00	20:00	4	1500	1900	4.7	7	1400	2100				7	1400	2100	7	1400	2100
8/2/2007	5	15:00	20:00	4	1500	1900	4.5	7	1400	2100				7	1400	2100	7	1400	2100
8/3/2007	5	15:00	20:00	4	1500	1900	4.5	7	1400	2100	8	1300	2100	8	1300	2100	8	1300	2100
8/4/2007	5	15:00	20:00	4	1500	1900	4.5							5	15:00	20:00	5	15:00	20:00
8/6/2007	5	15:00	20:00	4	1500	1900	4.5	7	1400	2100	8	1300	2100	8	1300	2100	8	1300	2100
8/7/2007	5	15:00	20:00	4	1500	1900	4.5	7	1400	2100				7	1400	2100	7	1400	2100
8/8/2007	7	14:00	20:00	5	1400	1900	5.5	7	1400	2100	12	1100	2300	12	1100	2300	12	1100	2300
8/9/2007	1.5	14:00	15:30	2	1400	1600	2.8	7	1400	2100	9	1200	2100	9	1200	2100	9	1200	2100
8/15/2007											9	1200	2100	9	1200	2100			
8/16/2007											10	1200	2200	10	1200	2200			
8/25/2007	3.25	16:40	20:00											3.25	16:40	20:00			
8/29/2007											11	1100	2200	11	1100	2200			
8/30/2007											9	1200	2100	9	1200	2100			
9/3/2007	3	16:00	19:00	2	1600	1800								3	16:00	19:00	3	16:00	19:00
9/4/2007	4	15:00	19:00	3	1500	1800								4	15:00	19:00	4	15:00	19:00
9/5/2007	4	15:00	19:00	3	1500	1800								4	15:00	19:00	4	15:00	19:00
9/6/2007	4	15:00	19:00	3	1500	1800								4	15:00	19:00	4	15:00	19:00
9/7/2007	4	15:00	19:00	3	1500	1800								4	15:00	19:00	4	15:00	19:00
9/8/2007	4	15:00	19:00											4	15:00	19:00			
9/10/2007	4	15:00	19:00	3	1500	1800					9	1200	2100	9	1200	2100	9	1200	2100
9/10/2007											5	1600	2100	5	1600	2100			
9/25/2007											9	1200	2100	9	1200	2100			
9/26/2007											10	1100	2100	10	1100	2100			
10/1/2007	6	15:00	21:00	6	1500	2100								6	15:00	21:00	6	15:00	21:00
10/2/2007	6	15:00	21:00	6	1500	2100								6	15:00	21:00	6	15:00	21:00
10/3/2007	6	15:00	21:00	6	1500	2100								6	15:00	21:00	6	15:00	21:00
10/4/2007	5	16:00	21:00	5	1600	2100								5	16:00	21:00	5	16:00	21:00

Table 4: Operational Data from Selected VA Companies Engaged in Distributed Generation

DATE	NOVEC			AOL			DFT	Dominion-SG			Dominion-VMEA			Generic Profile, Any Run Day (option 1)			Generic Profile, Days with 2 or more data points (option 2)		
	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time	Hrs	Start Time	Stop Time
10/6/2007	6	15:00	21:00	5	1500	2000								6	15:00	21:00	6	15:00	21:00
10/7/2007	6	15:00	21:00	5	1500	2000								6	15:00	21:00	6	15:00	21:00
10/8/2007	6	15:00	21:00	6	1500	2100								6	15:00	21:00	6	15:00	21:00
10/9/2007	6	15:00	21:00	6	1500	2100								6	15:00	21:00	6	15:00	21:00
11/2/2007	1	7:00	8:00	1	0700	0800								1	7:00	8:00	1	7:00	8:00
11/7/2007	2	7:00	9:00	2	0700	0900								2	7:00	9:00	2	7:00	9:00
11/8/2007	3	6:00	9:00	3	0600	0900								3	6:00	9:00	3	6:00	9:00
11/9/2007	2	6:00	8:00	2	0600	0800								2	6:00	8:00	2	6:00	8:00
11/16/2007	2	18:00	20:00	2	1800	2000								2	18:00	20:00	2	18:00	20:00
11/19/2007	2	6:00	8:00	2	0600	0800								2	6:00	8:00	2	6:00	8:00
11/19/2007	2	18:00	20:00	2	1800	2000								2	18:00	20:00	2	18:00	20:00
11/28/2007	3	6:00	9:00	2	0700	0900								3	6:00	9:00	3	6:00	9:00
11/28/2007	2	18:00	20:00	2	1800	2000								2	18:00	20:00	2	18:00	20:00
11/29/2007	1.75	7:00	8:45	1.5	0700	0830								1.75	7:00	8:45	1.75	7:00	8:45
11/29/2007	3	18:00	21:00	3	1800	2100								3	18:00	21:00	3	18:00	21:00
11/30/2007	2	7:00	9:00	2	0700	0900								2	7:00	9:00	2	7:00	9:00
11/30/2007	3	18:00	21:00	3	1800	2100								3	18:00	21:00	3	18:00	21:00
12/4/2007	3	18:00	21:00	3	1800	2100								3	18:00	21:00	3	18:00	21:00
12/5/2007	2	7:00	9:00	2	0700	0900								2	7:00	9:00	2	7:00	9:00
12/5/2007	3	17:00	20:00	3	1700	2000								3	17:00	20:00	3	17:00	20:00
12/6/2007	2	7:00	9:00	2	0700	900								2	7:00	9:00	2	7:00	9:00
12/6/2007	3	18:00	21:00	3	1800	2100								3	18:00	21:00	3	18:00	21:00
12/7/2007	2	7:00	9:00	2	0700	0900					5	1700	2200	5	1700	2200	5	1700	2200
12/7/2007	3	18:00	21:00	3	1800	2100								3	18:00	21:00	3	18:00	21:00
12/17/2007	1.25	7:00	8:15	1.5	0700	0830								1.25	7:00	8:15	1.25	7:00	8:15
12/17/2007	3	18:00	21:00	3	1800	2100								3	18:00	21:00	3	18:00	21:00
12/18/2007	2	7:00	9:00	2	0700	0900								2	7:00	9:00	2	7:00	9:00
12/19/2007											12	1000	2200	12	1000	2200			

Table 4: Operational Data from Selected VA Companies Engaged in Distributed Generation																		
DATE	**NOVEC**			**AOL**			**DFT**	**Dominion-SG**			**Dominion-VMEA**			**Generic Profile, Any Run Day (option 1)**			**Generic Profile, Days with 2 or more data points (option 2)**		
	Hrs	**Start Time**	**Stop Time**	**Hrs**	**Start Time**	**Stop Time**	**Hrs**	**Hrs**	**Start Time**	**Stop Time**	**Hrs**	**Start Time**	**Stop Time**	**Hrs**	**Start Time**	**Stop Time**	**Hrs**	**Start Time**	**Stop Time**
12/20/2007											16	600	2200	16	600	2200			
12/26/2007											3	1700	2000	3	1700	2000			
Total Hours	**314.0**			**281.0**			**186.6**	**141.0**			**234.0**			**513.5**			**381.0**		
Total Days	**93**			**94**			**57**	**21**			**28**			**111**			**92**		

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	US Army - Fort Myer	71714	013	00009	13	13	1	COMBINED DIESEL GENERATOR	20300101	2.12	Y
2007	Pentagon Reservation	70030	013	00010	20	20	1	RDF 1-9 Cat. 3516B Diesel Gensets	20200102	4.25	Y
2007	Pentagon Reservation	70030	013	00010	21	21	1	Cummins QSK7B Diesel Genset	20200102	0.17	Y
2007	Fort AP Hill	40306	033	00017	4	4	1	28 DIESEL GENERATORS	39999992	1.16	Y
2007	Merillat - Culpeper	40728	047	00032	1	1	1	Caterpillar G3412 diesel generator	20200401	3.99	Y
2007	The Rochester Corporation	40369	047	00044	4	1	1	Caterpillar gen 725kW - diesel	20200102	29.38	Y
2007	Town of Culpeper / Electric Power Plant	40927	047	00047	4	4	1	1275 hp-engine #7(FUEL OIL)	20100107	0.09	Y
2007	Wythe Park Power, LLC - Petersburg	51007	053	00077	1	1	1	#1 Engine, liquid fuel thruput	20200102	7.72	Y
2007	Wythe Park Power, LLC - Petersburg	51007	053	00077	1	2	1	#2 Engine, liquid fuel thruput	20200102	7.37	Y
2007	Wythe Park Power, LLC - Petersburg	51007	053	00077	1	3	1	#3 Engine, liquid fuel thruput	20200102	4.89	Y
2007	US Army - Fort Belvoir	70550	059	00018	19	25	1	DCEETA*10 CAT. 3516 GENSET	39999992	2.41	Y
2007	US Army - Fort Belvoir	70550	059	00018	19	25	2	DCEETA*4 CAT.3516B GENSET	39999992	0.65	Y
2007	US Army - Fort Belvoir	70550	059	00018	26	26	3	B2444*Three Diesel Generators	20200401	5.49	Y
2007	US Army - Fort Belvoir	70550	059	00018	26	26	5	B2462*Four CAT.SR-4 Genset	39999992	4.98	Y

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	US Army - Fort Belvoir	70550	059	00018	26	26	2	B2310*Three Diesel Generators	39999992	2.33	Y
2007	US Army - Fort Belvoir	70550	059	00018	26	26	1	B193*Cummins VT Diesel Gen.	20200401	0.17	Y
2007	US Army - Fort Belvoir	70550	059	00018	27	27	2	AMC*Gen.#2, Generac SD0750	39999992	0.22	Y
2007	US Army - Fort Belvoir	70550	059	00018	27	27	1	AMC*Gen.#1, Generac SD0750	39999992	0.19	Y
2007	US Army - Fort Belvoir	70550	059	00018	27	27	3	AMC*Gen.#3, Generac SD0600	39999992	0.12	Y
2007	US Army - Fort Belvoir	70550	059	00018	28	28	1	DTRA*Caterpillar SR-4 Genset	39999992	1.25	Y
2007	US Army - Fort Belvoir	70550	059	00018	29	29	1	INSCOM*Two Cummins 750 Gen.	39999992	0.97	Y
2007	US Army - Fort Belvoir	70550	059	00018	30	30	1	PPS*12 Gen. Cummins, Cat., EMD	20200401	4.41	Y
2007	US Army - Fort Belvoir	70550	059	00018	45	45	1	Diesel Generators	20200401	0.01	Y
2007	US Army - Fort Belvoir	70550	059	00018	46	46	1	Diesel Generator	20200401	0.17	Y
2007	US Army - Fort Belvoir	70550	059	00018	47	47	1	Diesel Generator	20200401	0.54	Y
2007	US Army - Fort Belvoir	70550	059	00018	48	48	1	BLDG 2953 Generator (800 kW)	20200401	0.11	Y
2007	Inova Fairfax Hospital	70021	059	00022	4	4	1	Generators-Distillate Fuel	20200401	0.45	Y
2007	Inova Fairfax Hospital	70021	059	00022	20	20	1	EG7&8*Caterpillar 3516B Genset	20300101	0.59	Y
2007	Washington Gas Light Company	70151	059	00056	1	1	1	1*CATERPILLER G399/GAS	20200202	15.27	Y
2007	Washington Gas Light Company	70151	059	00056	1	2	1	2*CATERPILLER G399/GAS	20200202	10.18	Y

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Washington Gas Light Company	70151	059	00056	2	4	1	3*CATERPILLER G399/GAS	20200202	10.25	Y
2007	Washington Gas Light Company	70151	059	00056	2	5	1	4*CATERPILLER G399/GAS	20200202	9.57	Y
2007	Washington Gas Light Company	70151	059	00056	3	8	1	6*CATERPILLER G399/GAS	20200202	16.25	Y
2007	Washington Gas Light Company	70151	059	00056	3	7	1	5*CATERPILLER G399/GAS	20200202	9.52	Y
2007	Washington Gas Light Company	70151	059	00056	6	12	1	12*CUMMINS GENER./#2 OIL	20300101	0.02	Y
2007	Washington Gas Light Company	70151	059	00056	8	14	1	Volvo 500 RD Diesel Generator	20200401	0.27	Y
2007	George Mason University	70691	059	00277	10	10	1	24 SMALL EMER. GEN. (diesel) <447kW kw	20300101	1.78	Y
2007	George Mason University	70691	059	00277	11	11	1	2 LARGE EMER. GEN. (diesel) >447 kW	20300101	0.67	Y
2007	Science Applications International Corp.	71804	059	00402	1	1	1	1-4 CUMMINS GEN KTA2300GS	20200401	0.44	Y
2007	Science Applications International Corp.	71804	059	00402	2	2	1	6-8 WAKESHA GEN VHP667ODS	20200401	0.67	Y
2007	ExxonMobil Global Services Company	71847	059	00413	2	2	1	Generators G1-G4 750	20200102	4.93	Y
2007	ExxonMobil Global Services Company	71847	059	00413	3	3	1	Generators GC1 - GC2 1100	20200102	2.91	Y
2007	Bush Center for Intelligence (CIA)	71757	059	00421	7	7	1	7 ALLISON TVRBINES/#2 OIL	20200101	18.93	Y
2007	Bush Center for Intelligence (CIA)	71757	059	00421	8	8	1	EMERG.DIESEL ENG.GENERATR	20200102	0.02	Y

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	National Reconnaissance Office	71988	059	00585	1	1	1	GS1-5*CATERPILLAR 3516	20200401	4.73	Y
2007	CRP 12100 SVD	72296	059	00733	1	1	1	#1-4 Caterpillar 3516B Generators rated at 2200 kW	20200102	3.52	Y
2007	Dulles Discovery - Phase 1	73340	059	73340	1	1	1	Engine Generator A	39999992	3.14	Y
2007	Dulles Discovery - Phase 1	73340	059	73340	2	2	1	Engine Generator B	39999992	2.92	Y
2007	Dulles Discovery - Phase 1	73340	059	73340	3	3	1	Engine Generator C	39999992	2.81	Y
2007	Dulles Discovery - Phase 1	73340	059	73340	4	4	1	Engine Generator D	39999992	2.43	Y
2007	Naval Support Facility	40307	099	00001	1	1	1	3- 2500 KW Diesel Generators	20200401	14.94	Y
2007	Naval Support Facility	40307	099	00001	9	5	1	(32) DIESEL GEN UP TO 448 KW	20300101	1.91	Y
2007	Naval Support Facility	40307	099	00001	10	10	1	(3) DIESEL GEN > 448 KW	20200401	4.35	Y
2007	Naval Support Facility	40307	099	00001	11	11	2	3B-NO 2 OIL GENERATORS (6)	20200401	5.42	Y
2007	America Online Incorporated	72346	107	00134	1	1	1	DIESL CAT#3516 EMRG GEN w/o Selective Reduction Systems	20200102	0.92	Y
2007	America Online Incorporated	72346	107	00134	4	4	1	8 SMALL DIESL EMERG GEN	20200102	1.77	Y
2007	America Online Incorporated	72346	107	00134	5	5	1	7 DIESL CAT#3516 EMRG GEN w/ Selective Reduction Systems	20200102	0.61	Y
2007	MCI-Verizon	72367	107	00141	1	1	1	1-8 CAT GENERATORS/#2 OIL	20300101	5.51	Y

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	MCI-Verizon	72367	107	00141	4	4	1	1-8 Onan generators/#2oil	20300101	13.85	Y
2007	Conectiv Delmarva Generation Inc - Bayview	40602	131	00008	1	1	1	1 E M D 16-645-ED4	20100102	23.39	Y
2007	Conectiv Delmarva Generation Inc - Bayview	40602	131	00008	2	2	1	2 E M D 16-645-ED4	20100102	20.68	Y
2007	Conectiv Delmarva Generation Inc - Bayview	40602	131	00008	3	3	1	3 E M D 16-645-ED4	20100102	22.51	Y
2007	Conectiv Delmarva Generation Inc - Bayview	40602	131	00008	4	4	1	4 E M D 16-645-ED4	20100102	16.28	Y
2007	Conectiv Delmarva Generation Inc - Bayview	40602	131	00008	5	5	1	5 E M D 16-645-ED4	20100102	21.28	Y
2007	Conectiv Delmarva Generation Inc - Bayview	40602	131	00008	6	6	1	6 E M D 16-645-ED4	20100102	21.73	Y
2007	US Marine Corps - Quantico	70267	153	00010	23	23	1	(Bldg 3300) Caterpillar 3512 Diesel-fired Emergency Gen	39999992	1.69	Y
2007	US Marine Corps - Quantico	70267	153	00010	34	58	1	Fueling Station CNG Compressor Engine - NG fired	40600401	0.08	Y
2007	US Marine Corps - Quantico	70267	153	00010	35	59	1	Hochmuth Hall Building 2033 - Emergency Generator 3	39999992	0.63	Y

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	US Marine Corps - Quantico	70267	153	00010	36	60	1	Diamond Hall Blg 3098 Emergency Generator 750 hp	39999992	0.10	Y
2007	US Marine Corps - Quantico	70267	153	00010	37	61	1	Newlin Hall Building 3255 Emergency Generator #1	39999992	0.14	Y
2007	US Marine Corps - Quantico	70267	153	00010	38	62	1	Newlin Hall Building 3255 Emergency Generator #2	39999992	0.11	Y
2007	US Marine Corps - Quantico	70267	153	00010	39	63	1	Newlin Hall Building 3255 Emergency Generator #3	39999992	1.07	Y
2007	US Marine Corps - Quantico	70267	153	00010	40	64	1	NOC - 1 Network Operations Center Emergency Generator	39999992	1.10	Y
2007	US Marine Corps - Quantico	70267	153	00010	41	65	1	Marsh Center Building 3280 Emergency Generator	39999992	0.70	Y
2007	US Marine Corps - Quantico	70267	153	00010	42	66	1	Water Plant Building 1303 Emergency Generator	39999992	1.74	Y
2007	US Marine Corps - Quantico	70267	153	00010	43	67	1	Sewage Plant Building 660 Emergency Generator	39999992	0.84	Y
2007	US Marine Corps - Quantico	70267	153	00010	44	68	1	EG #2 Sewage Plant Building 660	39999992	0.53	Y
2007	US Marine Corps - Quantico	70267	153	00010	46	70	1	Whiteside Hanger Emergency Generator	39999992	0.45	Y
2007	US Marine Corps - Quantico	70267	153	00010	47	71	1	Greenside Hanger Emergency Generator	39999992	0.34	Y
2007	US Marine Corps - Quantico	70267	153	00010	48	72	1	Emer. Gen. - Harry Lee Hall Bldg. #17	39999992	0.03	Y
2007	Lockheed Martin Manassas	70261	153	00021	11	11	1	(EGEN 001) Cummins NTA400 Emergency Generator, 230 kW (400 hp engine)	20200102	0.05	Y

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Lockheed Martin Manassas	70261	153	00021	12	12	1	(EGEN 101) Katolight Emergency Generator, gas-fired, 60 kW (80.5 hp engine)	20200202	0.01	Y
2007	Lockheed Martin Manassas	70261	153	00021	13	13	1	(EGEN 105) Cummins NTA355 no.2 oil-fired, emergency generator, 200 kW (355 hp engine)	20200102	0.04	Y
2007	Lockheed Martin Manassas	70261	153	00021	14	14	1	(EGEN 106) Cummins VT1710, no. 2 oil-fired emergency generator, 450 kW (685 hp engine)	20200401	0.05	Y
2007	Lockheed Martin Manassas	70261	153	00021	15	15	1	(EGEN 110-1) Cummins NTA355 no.2 oil-fired, emergency generator, 200 kW (355 hp	20200102	0.04	Y
2007	Lockheed Martin Manassas	70261	153	00021	16	16	1	(EGEN 110-2) Caterpillar 3412, no. 2 oil-fired emergency generator, 500 kW (747 hp engine)	20200401	0.06	Y
2007	Lockheed Martin Manassas	70261	153	00021	17	17	1	(EGEN 120) Caterpillar 3306PC, no. 2 oil-fired, emergency generator 155 kW (275 hp engine)	20200102	0.04	Y
2007	Lockheed Martin Manassas	70261	153	00021	18	18	1	(EGEN 200) Caterpillar 3412, no.2 oil-fired, emergency generator 500 kW (747 hp engine)	20200401	0.06	Y

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Lockheed Martin Manassas	70261	153	00021	20	20	1	(EGEN400) Cummins HS240, no.2 oil-fired, emergency generator, 125 kW (240 hp engine)	20200401	0.02	Y
2007	America Online Inc	72368	153	00143	1	1	1	4 CAT Generators without SCR systems & 3 Rotary power systems	20200102	1.79	Y
2007	America Online Inc	72368	153	00143	3	3	2	6 Cat 3516B generators with Selective Catalytic Reduction Systems - Uncontrolled	20200102	4.77	Y
2007	America Online Inc	72368	153	00143	3	3	1	6 Cat 3516B generators with Selective Catalytic Reduction Systems - Controlled	20200102	1.43	Y
2007	Dupont Fabros Technology - Porpoise Ventures LLC	73180	153	00812	1	1	2	Generators SCR (Ref #1, 2, 5, 6, 9, 10) When NOx reduction is less than 90%	39999992	9.52	Y
2007	Dupont Fabros Technology - Porpoise Ventures LLC	73180	153	00812	1	1	5	Non-SCR Units (Ref# EG3, EG4, EG7, EG8, RPU 1, RPU 2, RPU3) 51-75 % Load	39999992	3.26	Y
2007	Dupont Fabros Technology - Porpoise Ventures LLC	73180	153	00812	1	1	1	Generators SCR (Ref # 1, 2, 5, 6, 9, 10) When NOx is 90% reduced	39999992	2.00	Y
2007	Dupont Fabros Technology - Porpoise Ventures LLC	73180	153	00812	1	1	4	Non-SCR Units (Ref# EG3, EG4, EG7, EG8, RPU 1, RPU 2, RPU3) 26-50 % Load	39999992	1.46	Y
2007	Dupont Fabros Technology - Porpoise Ventures LLC	73180	153	00812	1	1	3	Non-SCR Units (Ref# EG3, EG4, EG7, EG8, RPU 1, RPU 2, RPU3)	39999992	0.19	Y

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Dupont Fabros Technology - Porpoise Ventures LLC	73180	153	00812	1	1	6	Non-SCR Units (Ref# EG3, EG4, EG7, EG8, RPU 1, RPU 2, RPU3) 76-100% Load	39999992	0.12	Y
2007	FBI Academy	40368	179	00020	7	7	1	(6) 1500 kW Emer. Gen-N6G1 thru N6G6	20200401	1.34	Y
2007	FBI Academy	40368	179	00020	8	8	1	(2) 1500 kW Emer gen-19G1 & 19G2	20200401	1.23	Y
2007	FBI Academy	40368	179	00020	9	9	1	(1) 800 kW Emer Gen-9-C-G1	20200401	0.29	Y
2007	FBI Academy	40368	179	00020	10	10	1	(1) 300 kW Emer Gen-N7-G1	20300101	0.03	Y
2007	FBI Academy	40368	179	00020	11	11	1	(1) 425 kW Emer Gen-16G1	20200401	0.08	Y
2007	FBI Academy	40368	179	00020	12	12	1	(7) Gen, diesel-ELSG1&2, 10G1, 12G1, 6G1, HRLSG1, 17G1	20300101	0.82	Y
2007	City of Manassas/VMEA	71977	683	00090	1	1	1	V3-10 CAT 3516TA-ENGINES	39999991	49.59	Y
2007	City of Manassas/VMEA	71977	683	00090	2	2	1	V1-2, C7-10 Cat 3516TA Engines	39999991	21.35	Y
2007	City of Manassas/VMEA	71977	683	00090	3	3	1	V11-12 CAT3516TA-ENG	39999991	7.01	Y
2007	Manassas City - Church Street Power Generation Fac	72004	683	00094	1	1	1	1#DETROIT DIESEL9163-7305	39999991	2.54	Y
2007	Manassas City - Church Street Power Generation Fac	72004	683	00094	2	2	1	2*DETROIT DIESEL9163-7305	39999991	2.26	Y

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Manassas City - Church Street Power Generation Fac	72004	683	00094	3	3	1	3*CATERPILLAR 3512 DITA 6	39999991	2.41	Y
2007	Manassas City - Church Street Power Generation Fac	72004	683	00094	4	4	1	4*DETROIT DIESEL9163-7305	39999991	2.11	Y
2007	Manassas City - Church Street Power Generation Fac	72004	683	00094	5	5	1	5*CATERPILLAR 3516 DITA	39999991	4.07	Y
2007	Manassas City - Church Street Power Generation Fac	72004	683	00094	6	6	1	6*CATERPILLAR 3516 DITA	39999991	4.06	Y
2007	Micron Technology Incorporated	72299	683	00131	4	4	1	EG -1 Emergency generator - CAT 3508 600 kW	39999992	0.07	Y
2007	Micron Technology Incorporated	72299	683	00131	5	5	1	EG2 Emergency Generator - CAT 3508 720 kW	39999992	0.24	Y
2007	Micron Technology Incorporated	72299	683	00131	6	6	1	EG-3 Emergency Generator CAT 3412 470kW	39999992	0.03	Y
2007	Micron Technology Incorporated	72299	683	00131	7	7	1	EG-4 Emergency Generator CAT 3406DI 250 kW 519 bhp	39999992	0.03	Y
2007	Micron Technology Incorporated	72299	683	00131	8	8	1	EG5, EG6, EG7 Emergency Generators CAT 3512, 1250 kW, 1786 bhp	39999992	0.41	Y
2007	Micron Technology Incorporated	72299	683	00131	9	9	1	EG9 Emergency Generators CAT 3512, 1250 kW, 1786 bhp	39999992	0.10	Y

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Micron Technology Incorporated	72299	683	00131	10	10	1	EG8, CAT 3516, 1040kW, Nat. Gas fired	20100202	0.05	Y
2007	Manassas City of - Central Park Plant	72327	683	00134	1	1	1	4 Caterpillar Gensets - 3516B	39999991	7.32	Y
2007	Manassas City of - Central Park Plant	72327	683	00134	2	2	1	1 R.R. AVON 1533 TURBINE	39999991	0.62	Y
2007	Wythe Park Power, LLC Richmond Plant	51055	760	00405	1	1	2	Dual Fuel emissions for all three (3) KTA-50 engines	20100201	5.00	Y
2007	Wythe Park Power, LLC Richmond Plant	51055	760	00405	1	1	1	Single Fuel emissions for all three (3) KTA-50 engines	20100201	0.04	Y
2007	A and N Electric Cooperative - Tangier Island	40564	001	00012	1	1	1	1-4 Generators/#2 oil	20100102	1.63	N
2007	Old Dominion Electric Cooperative - Unit 7	61410	001	61410	1	1	1	Diesel Generators (UNIT 7)	20200401	1.63	N
2007	Old Dominion Electric Cooperative - Unit 8	61411	001	61411	1	1	1	Diesel Generator (UNIT 8)	20200401	1.33	N
2007	Old Dominion Electric Cooperative - UNIT 5	61412	001	61412	1	1	1	Diesel Generator (UNIT 5)	20200401	1.61	N
2007	Old Dominion Electric Cooperative - Unit 6	61413	001	61413	1	1	1	Diesel Generator (UNIT 6)	20200401	1.50	N
2007	Old Dominion Electric Cooperative - UNIT 9	61414	001	61414	1	1	1	Diesel Generator (Unit 9)	20200401	1.47	N

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Old Dominion Electric Cooperative - UNIT 10	61415	001	61415	1	1	1	Diesel Generator (Unit 10)	20200401	1.72	N
2007	Pointon Substation-Amelia County-Unit 4	51934	007	51934	1	1	1	Caterpillar diesel engine	39999992	1.08	N
2007	MWAA - Ronald Reagan National Airport	70005	013	00015	15	15	1	EM.GEN.&PUMP	20300101	1.60	N
2007	Virginia Hospital Center - Arlington	70226	013	00163	2	2	1	G1-8*DIESEL GENERATORS	20200102	1.51	N
2007	Verizon Virginia Incorporated - North Irving St	73302	013	00812	1	2	2	Spectrum Gen Set - 1600|DS60	39999992	0.26	N
2007	Verizon Virginia Incorporated - North Irving St	73302	013	00812	1	1	1	Spectrum Gen Set - 1600|DS60	39999992	0.27	N
2007	Dominion - Bath County Power Station	80834	017	00003	1	1	1	1 EMERG DZL GEN 9163-7305	20100102	0.22	N
2007	Dominion - Bath County Power Station	80834	017	00003	2	2	1	2 EMERG DZL GEN 9163-7305	20100102	0.17	N
2007	Dominion - Bath County Power Station	80834	017	00003	3	3	1	3 EMERG DZL GEN 1043-7305	20100102	0.03	N
2007	Culpeper Regional Hospital	40265	047	00017	1	1	1	Caterpillar Generator Model 3412	20300101	0.66	N
2007	Culpeper Regional Hospital	40265	047	00017	1	1	2	Kohler Generator Model 230RO7271	20300101	0.15	N
2007	US Army-Warrenton Training Center Station D	40901	047	00042	1	1	1	(4) Diesel Emergency Generators	20200102	0.60	N

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Culpeper Wastewater Treatment Plant	41019	047	00055	1	1	1	750 kW Emergency Generator	20300101	0.13	N
2007	Culpeper Wastewater Treatment Plant	41019	047	00055	2	2	1	1825kW Emergency Generator	20300101	1.17	N
2007	Town of Culpeper Light & Power	41024	047	00057	1	1	1	#1 Cat 3516B Diesel Eng	20200401	3.22	N
2007	Town of Culpeper Light & Power	41024	047	00057	2	2	1	#2 Cat 3516B Diesel Eng	20200401	3.22	N
2007	Town of Culpeper Light & Power	41024	047	00057	3	3	1	#3 Cat 3516B Diesel Eng	20200401	2.77	N
2007	National Audio Visual Conservation Center	41039	047	00061	3	3	2	G1 Genset Diesel Fuel	20200401		N
2007	National Audio Visual Conservation Center	41039	047	00061	3	3	1	G1 Genset Hours Operated	39999992	0.28	N
2007	National Audio Visual Conservation Center	41039	047	00061	4	4	2	G2 Genset Diesel Fuel	20200401		N
2007	National Audio Visual Conservation Center	41039	047	00061	4	4	1	G2 Genset Hours Operated	39999992	0.23	N
2007	National Audio Visual Conservation Center	41039	047	00061	5	5	2	G3 Genset Diesel Fuel	20200401		N
2007	National Audio Visual Conservation Center	41039	047	00061	5	5	1	G3 Genset Hours Operated	39999992	0.24	N

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Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	National Audio Visual Conservation Center	41039	047	00061	6	6	2	G4 Genset Diesel Fuel	20200401		N
2007	National Audio Visual Conservation Center	41039	047	00061	6	6	1	G4 Genset Hours Operated	39999992	0.24	N
2007	US Geological Survey	71723	059	00343	8	8	2	G4*Caterpillar 3306 genset/oil	39999992	0.08	N
2007	US Geological Survey	71723	059	00343	8	8	1	G2, G3*Cummins AP-800 gen./oil	39999992	0.35	N
2007	US Geological Survey	71723	059	00343	9	9	1	G1*Cummins GTA28 genset/gas	39999992	0.11	N
2007	US Geological Survey	71723	059	00343	9	9	2	G5*Cummins GTA-50 genset/gas	39999992	0.37	N
2007	GANNETT OFFSET-SPRINGFIELD	71883	059	00439	3	31	1	G1 KATOLIGHT D2000F Y4 DIESEL GENSET	20300101	0.30	N
2007	Reston Hospital Center	71918	059	00558	2	40	1	Two Emerg. Generators	20200102	0.38	N
2007	CENTRAL INTELLIGENCE AGENCY	72289	059	00729	1	1	1	1*CATERPILLAR 200KW DIEGN	20200102	0.05	N
2007	CENTRAL INTELLIGENCE AGENCY	72291	059	00731	1	1	1	1*CATERPILLAR 900KW DIEGN	20200102	0.12	N
2007	Fannie Mae	72292	059	00732	1	1	1	1*CATERPILLER 1500KW DGEN	20200102	1.51	N
2007	Fannie Mae	72292	059	00732	2	2	1	2*CATERPILLAR 1500KW DGEN	20200102	1.51	N
2007	Fannie Mae	72292	059	00732	3	3	1	3*CATERPILLAR 1500KW DGEN	20200102	1.21	N
2007	Fannie Mae	72292	059	00732	4	4	1	4*CATERPILLAR 1500KW DGEN	20200102	0.60	N

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Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Fannie Mae	72292	059	00732	5	5	1	5*CATERPILLAR 500KW DGEN	20300101	0.04	N
2007	Quest Diagnostics	72342	059	00745	2	2	1	1-2*CATPLER GEN / DIESEL	20200102	0.39	N
2007	Washington International Teleport	72349	059	00749	1	1	1	A,B*ONAN450 DFECGENERATOR	20300101	0.68	N
2007	Washington International Teleport	72349	059	00749	2	2	1	3,4*ONAN250 DFBE/CAT.SR4F	20300101	0.47	N
2007	Inova Fair Oaks Hospital	72353	059	00753	2	2	1	1-2 Magna Diesel Generators	20200102	0.30	N
2007	Inova Fair Oaks Hospital	72353	059	00753	4	4	1	3* Kohler Emergency Diesel Gen.	20200102	0.13	N
2007	Mainrock II Chantilly LLC	72375	059	00761	1	1	1	Generator 1	39999992	0.06	N
2007	Mainrock II Chantilly LLC	72375	059	00761	2	2	1	Generator 2	39999992	0.06	N
2007	Mainrock II Chantilly LLC	72375	059	00761	3	8	1	Generator 3	39999992	0.06	N
2007	Freddi Mac Corporation	73105	059	00763	1	1	1	4 diesl engine gen sets 2000 KW	39999992	0.90	N
2007	Lemur Properties Limited Liability Corporation	73162	059	00817	1	01	1	1-18 Caterpillar 3516B Dsl-Gen.	20200102	2.33	N
2007	Time Warner Cable	73170	059	00819	1	1	1	1-2*Caterpillar model 3508B gen	39999992	1.21	N
2007	Time Warner Cable	73170	059	00819	2	2	1	1-2*Caterpillar model 3508B gen	39999992	1.15	N
2007	National Air & Space Museum	73220	059	00829	4	4	1	900 kW Kohler Emergency Generator	39999992	0.44	N
2007	National Air & Space Museum	73220	059	00829	5	5	1	400 kW Kohler Emergency Generator	39999992	0.20	N

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2007	Gannett Satellite Information Network Incorporated	73230	059	00832	1	1	1	CAT 3508B Engine Generator #1	39999992	0.01	N
2007	Gannett Satellite Information Network Incorporated	73230	059	00832	2	2	1	CAT 3508B Engine Generator #2	39999992	0.01	N
2007	Gannett Satellite Information Network Incorporated	73230	059	00832	3	3	1	CAT 3508B Engine - Generator #3	39999992	0.01	N
2007	Gannett Satellite Information Network Incorporated	73230	059	00832	4	4	1	CAT 3508B Engine - Generator #4	39999992	0.01	N
2007	Unisys Corporation	73279	059	00840	1	1	1	Cummins generator sets (ref. 1 & 2)	20100102	0.29	N
2007	UOSA - Cub Run	73282	059	00841	1	1	1	Kohler Diesel Genset (GEN 1)	39999992	0.24	N
2007	UOSA - Cub Run	73282	059	00841	2	2	1	Kohler Diesel Genset (GEN 2)	39999992	0.21	N
2007	Nextel Communications of the Mid Atlantic, Inc.	73287	059	00842	1	1	1	Diesel engine exhaust	39999992	0.28	N
2007	Nextel Communications of the Mid Atlantic, Inc.	73288	059	00843	1	1	1	Diesel engine/generator exhaust	39999992	0.22	N
2007	Nextel Communications of the Mid Atlantic, Inc.	73289	059	00844	1	1	1	Diesel engine/generator exhaust stack	39999992	0.20	N

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Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Verizon Virginia Incorporated - Moore Road	73303	059	00849	1	1	1	Diesel Driven Engine 1700 hp	39999992	0.37	N
2007	Nextel NOC MSO Tech Lab PKT Data	73342	059	00864	1	1	1	Onan Gen - DFED/K 5005243A	20100102	0.38	N
2007	Nextel NOC MSO Tech Lab PKT Data	73342	059	00864	1	4	1	Onan Gen - DFED/K 404657SE	20100102	0.38	N
2007	Nextel NOC MSO Tech Lab PKT Data	73342	059	00864	1	2	1	Onan Gen - DFFD-1715	20100102	0.38	N
2007	Nextel NOC MSO Tech Lab PKT Data	73342	059	00864	1	3	1	Onan Gen - DFD-3387771	20100102	0.38	N
2007	Nextel NOC MSO Tech Lab PKT Data	73342	059	00864	1	5	1	Kohler Generator	20100102	0.27	N
2007	Clearwire	73343	059	00865	1	1	1	Caterpillar Generator	20100102	0.25	N
2007	Nextel National Headquarters	73344	059	00866	1	1	1	Caterpillar Generator	20100102	0.58	N
2007	Mitre Corporation	73345	059	00867	2	5	1	diesel fired generator (G1)	39999992	0.46	N
2007	Mitre Corporation	73345	059	00867	3	6	1	diesel fired generator (G2)	39999992	0.12	N
2007	Mitre Corporation	73345	059	00867	4	7	1	diesel fired generator (G3)	39999992	0.39	N
2007	Mitre Corporation	73345	059	00867	5	8	1	diesel fired generator (G4)	39999992	0.09	N
2007	Mitre Corporation	73345	059	00867	6	9	1	diesel fired generator (G5)	39999992	0.41	N
2007	Mitre Corporation	73345	059	00867	7	10	1	diesel fired generator (G6)	39999992	0.16	N

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Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Enersol Technologies Incorporated	72359	059	72359	2	21	3	DIESEL GEN. KILOWATT-HRS	39999991	0.25	N
2007	Enersol Technologies Incorporated	72359	059	72359	2	21	2	DIESEL GENERATORS-HOURS	39999992	0.51	N
2007	Sprint United Management Company	73515	059	73515	1	1	1	Cat 3512 diesel generator	20100102	0.63	N
2007	Sprint United Management Company	73515	059	73515	2	2	1	Cat 3512 diesel generator	20100102	0.63	N
2007	Sprint United Management Company	73515	059	73515	3	3	1	Cat 3512 diesel generator	20100102	0.63	N
2007	Sprint United Management Company	73515	059	73515	4	4	1	Cat 3512 diesel generator	20100102	0.63	N
2007	Sprint United Management Company	73515	059	73515	5	5	1	Cat 3512 diesel generator	20100102	0.14	N
2007	Sprint United Management Company	73515	059	73515	6	6	1	Cat 3512 diesel generator	20100102	0.29	N
2007	Sprint United Management Company	73515	059	73515	7	7	1	Cat 3516 B diesel generator	20100102	0.56	N
2007	Sprint United Management Company	73515	059	73515	8	8	1	Cummins DQKAB - 2919 BHP	20100102	0.05	N
2007	U. S. Army-Warrenton Training Station A	40384	061	00022	2	2	2	(3) Diesel Emergency Generators	20200102	2.02	N
2007	Warrenton Training Center Station C	40900	061	00055	1	1	1	(2) Diesel Emergency Generators	20200102	0.10	N

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2007	Warrenton Training Station B	40902	061	00056	1	1	1	(19) diesel generators <400 kW ea	20200102	0.33	N
2007	Warrenton Training Station B	40902	061	00056	3	3	1	(10) Cat 3516B Diesel Generators	20200401	4.97	N
2007	Potomac Consolidated Tracon (FAA)	41047	061	00068	1	1	1	Engine Generator #1	39999992	0.24	N
2007	Potomac Consolidated Tracon (FAA)	41047	061	00068	2	2	1	Engine Generator #2	39999992	0.31	N
2007	Potomac Consolidated Tracon (FAA)	41047	061	00068	3	3	1	Engine Generator #3	39999992	0.37	N
2007	Potomac Consolidated Tracon (FAA)	41047	061	00068	4	4	1	Engine Generator #4	39999992	0.32	N
2007	Air BP	71734	107	00064	7	7	1	FF-EG1 Caterpillar diesel generator	39999992	0.27	N
2007	MWAA - Washington Dulles International Airport	70003	107	00074	16	16	1	ALL OTHER DIESEL GENRATRS	20200102	0.02	N
2007	Dominion - Loudoun Compressor Station	71809	107	00075	1	2	2	Caterpillar Model G3616	20200202	0.16	N
2007	Dominion - Loudoun Compressor Station	71809	107	00075	1	1	1	Caterpillar Model G3616 Compressor Engines	20200202	0.14	N
2007	Dominion - Loudoun Compressor Station	71809	107	00075	2	3	1	Internal combustion compressor engine	20200202	0.61	N

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2007	Town of Leesburg/Water Poll Control Div	72260	107	00124	2	2	1	CATERPILLAR 3512 GENSET (G1)	20200102	0.30	N
2007	Town of Leesburg/Water Poll Control Div	72260	107	00124	3	3	1	CUMMINS 1500DFMB GENSET (G2)	20200102	0.54	N
2007	Iridium Satellite, L.L.C	72302	107	00128	1	1	1	Emerg. Generator, Cat. 3516TA	20300101	0.51	N
2007	Inova Loudoun Hospital	72307	107	00130	3	21	1	E-1,2,3*CATERPILLAR 3412	20200102	0.11	N
2007	TOWN OF LEESBURG-WATER SUPPLY DIVISION	72328	107	00133	1	1	1	1 Caterpillar 1000 KW GEN.3512	20300101	0.30	N
2007	TOWN OF LEESBURG-WATER SUPPLY DIVISION	72328	107	00133	3	3	1	1 Caterpillar 1000 KW GEN.3512	20300101	0.18	N
2007	NTTA Communications	72376	107	00144	1	1	1	Diesel engine exhaust EGU 1	39999992	0.67	N
2007	NTTA Communications	72376	107	00144	2	2	1	Diesel engine exhaust (EGU2)	39999992	0.15	N
2007	NTTA Communications	72376	107	00144	3	3	1	Diesel engine exhaust (EGU3)	39999992	0.69	N
2007	NTTA Communications	72376	107	00144	4	4	1	Diesel engine exhaust (EGU 5)	39999992	0.34	N
2007	NTTA Communications	72376	107	00144	5	5	1	Diesel engine exhaust (EGU 6)	39999992	0.71	N
2007	Qwest Communications Corporation - Sterling	73158	107	00814	1	1	1	1-3*Caterpillar 3516B Genset	20200102	0.57	N

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2007	Qwest Communications Corporation - Sterling	73158	107	00814	2	2	1	1-10*Cummins Onan Genset	20200102	1.24	N
2007	Equinix Incorporated	73199	107	00820	1	1	1	DC4-1,1-7*Caterpillar 3516B Gen	20100101	3.91	N
2007	Equinix Incorporated - 21711 Filigree Court	73233	107	00823	1	1	2	C1-3* Caterpillar 3412B Genset	39999992	0.43	N
2007	Equinix Incorporated - 21711 Filigree Court	73233	107	00823	2	2	2	F1-6* Caterpillar 3516B Genset	39999992	4.81	N
2007	Equinix Incorporated - 21711 Filigree Court	73233	107	00823	3	3	2	G1-7* Caterpillar 3516C genset	39999992	0.72	N
2007	AT&T Web Hosting Facility	73240	107	00824	1	1	1	1-6 GenSets #2 Oil	20200102	0.92	N
2007	AT&T Web Hosting Facility	73240	107	00824	2	2	1	G7 - CAT 3516C GenSet, 2000 kW, Diesel Fueled	39999992	0.64	N
2007	AT&T Web Hosting Facility	73240	107	00824	3	3	1	G8 - CAT 3516C GenSet, 2000 kW, Diesel Fueled	39999992	0.64	N
2007	AT&T Web Hosting Facility	73240	107	00824	4	4	1	G9 - CAT 3516C GenSet, 2000 kW, Diesel Fueled	39999992	0.64	N
2007	AT&T Web Hosting Facility	73240	107	00824	5	5	1	G10 - CAT 3516C GenSet, 2000 kW, Diesel Fueled	39999992	0.64	N
2007	AT&T Web Hosting Facility	73240	107	00824	6	6	1	G11 - CAT 3516C GenSet, 2000 kW, Diesel Fueled	39999992	0.64	N

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Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	AT&T Web Hosting Facility	73240	107	00824	7	7	1	G12 - CAT 3516C GenSet, 2000 kW, Diesel Fueled	39999992	0.64	N
2007	LCSA - Broad Run Water Reclamation	73268	107	00831	1	1	2	G1-3*Cummins 2000DQKC, kW-hrs	39999991	0.01	N
2007	LCSA - Broad Run Water Reclamation	73268	107	00831	1	1	1	G1-3*Cummins 2000DQKC Gen.	39999992	0.16	N
2007	Nextel Sterling Lab VA-9	73286	107	00838	1	1	1	Diesel engine exhaust	39999992	0.17	N
2007	VeriSign Incorporated Broad Run Facility2	73341	107	00843	1	1	1	Desiel fuel firing	39999992	0.72	N
2007	VeriSign Incorporated Broad Run Facility2	73341	107	00843	2	2	1	Desiel fuel firing	39999992	0.72	N
2007	VeriSign Incorporated Broad Run Facility2	73341	107	00843	3	3	1	Desiel fuel firing	39999992	0.72	N
2007	HB Mellott Estate Incorporated - Bull Run Plant	73356	107	00847	2	2	1	diesel fuel firing	39999992	0.42	N
2007	HB Mellott Estate Incorporated - Bull Run Plant	73356	107	00847	3	3	1	diesel fuel firing	39999992	0.44	N
2007	HB Mellott Estate Incorporated - Bull Run Plant	73356	107	00847	4	4	1	diesel fuel firing	39999992	1.23	N
2007	HB Mellott Estate Incorporated - Bull Run Plant	73356	107	00847	5	5	1	diesel fuel firing	39999992	1.82	N

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Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Savvis Communications Corporation-DC Four Facility	73641	107	00885	1	1	1	Cummins Diesel GenSet, EG R (1)	39999992	0.16	N
2007	Savvis Communications Corporation-DC Four Facility	73641	107	00885	2	2	1	Cummins Diesel GenSet, EG A (2)	39999992	0.20	N
2007	Savvis Communications Corporation-DC Four Facility	73641	107	00885	3	3	1	Cummins Diesel GenSet, EG B (3)	39999992	0.20	N
2007	Savvis Communications Corporation-DC Four Facility	73641	107	00885	4	4	1	Cummins Diesel GenSet, EG C (4)	39999992	0.16	N
2007	Savvis Communications Corporation-DC Four Facility	73641	107	00885	5	5	1	Cummins Diesel GenSet, EG D (5)	39999992	0.15	N
2007	Savvis Communications Corporation-DC Four Facility	73641	107	00885	6	6	1	Cummins Diesel GenSet, EG E (6)	39999992	0.16	N
2007	Savvis Communications	73160	107	73160	1	1	1	1-5*Caterpillar model 3512 gen. #2 oil	39999992	0.92	N
2007	Savvis Communications	73160	107	73160	2	2	1	1-6 2000 kw Emergency generators #2 oil	39999992	0.80	N
2007	Savvis Communications	73160	107	73160	3	3	1	Caterpillar model 3512-C 1250 kW GenSet. Diesel Fuel	39999992	0.09	N
2007	Blackstone Town	30881	135	00033	1	1	1	DSL GEN hours of operation	28888803	1.21	N
2007	American Tower Corporation	40876	137	00031	1	1	1	Segment 1 Description	20200102	0.12	N

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Danville City - Department of Utilities	32039	143	00157	1	1	1	Generator - distillate oil	20200401	0.43	N
2007	Prince William Hospital Corporation	70006	153	00011	5	5	1	EG-1 through EG-5 Generators	20300101	2.02	N
2007	Potomac Hospital	70295	153	00047	3	9	1	HG-4 - 1500 kW Caterpillar 3512B emergency generator	20200102	0.43	N
2007	Potomac Hospital	70295	153	00047	3	3	1	HG-3 - 1500 kW Caterpillar 3512B emergency generator	20200102	0.64	N
2007	Comcast Cablevision of Virginia Incorporated	72374	153	00144	1	1	1	Two diesel-driven emergency generators	39999992	0.27	N
2007	Verizon Business	73200	153	00147	1	1	1	Emergency Generators (Ref #s 1-7)	39999992	3.60	N
2007	City of Manassas WTP	73229	153	00817	1	1	2	Caterpillar 3516B diesel generator - kilowatt/hours	39999991	1.16	N
2007	Architect of the Capitol	73264	153	00889	2	2	1	Cummins generator, Model KTA5063, 1250 kw, EG 250-1	20100102	1.09	N
2007	Architect of the Capitol	73264	153	00889	3	3	1	Cummins generator, Model VT1710, 450 kW, EG 250-2	20100102	0.39	N
2007	Architect of the Capitol	73264	153	00889	4	4	1	#1 Cummins generator, QSK60-G6, rated at 2000kW	20100102	0.44	N
2007	Architect of the Capitol	73264	153	00889	7	5	1	#2 Cummins generator, QSK60-G6, rated at 2000kW	20100102	0.88	N

Table 5: Line items in the DG inventory											
Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Old Dominion Electric Cooperative - Portable 61416	61416	175	61416	1	1	1	2000 kW Diesel Generator-Unit 1 23636 Meherrin Rd, Courtland VA 23837	20200401	0.89	N
2007	Old Dominion Electric Cooperative - Portable 61417	61417	175	61417	1	1	1	2000 kW Diesel Generator, 23636 Meherrin Rd, Courtland VA 23837	20200401	0.94	N
2007	GM Powertrain Fredericksburg	40684	177	00043	5	6	1	Emergency Generator (540bhp)	20200102	0.15	N
2007	GM Powertrain Fredericksburg	40684	177	00043	6	7	1	Fire Pump - 255bhp	20200102	0.05	N
2007	Spotsylvania Co Water Treatment-Ni River	40887	177	00079	1	1	1	Cummins Emergency Generator-No. 2 fuel oil	20200401	0.12	N
2007	Spotsylvania Co Water Treatment-Ni River	40887	177	00079	1	2	1	Emergency Generator - 400 kW	20300101	0.14	N
2007	Rappahannock Electric Coop Thornburg Middle Sch	40980	177	00099	1	1	1	2000 kW Caterpillar Genset	20100102	7.13	N
2007	FMC Waste Water Treatment Plant	41009	177	00105	1	3	1	100 kW emerg. genrator, falls under emerg. generator rule	20200102	0.07	N
2007	FMC Waste Water Treatment Plant	41009	177	00105	1	1	1	Caterpillar DP100P4, 750 kW	20200401	0.08	N
2007	FMC Waste Water Treatment Plant	41009	177	00105	1	2	1	Emerg. Generator - 625 kW	20200401	0.07	N
2007	Spotsylvania County Utilities Dept. Motts Run WTP	41010	177	00106	1	1	1	Emerg. Generator	20200102	0.19	N
2007	STAFFORD CORRECTIONAL UNIT 21	40569	179	00013	1	1	1	CUMMINGS DIESEL 176 BHP	20300101	4.53	N

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Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	Inova Alexandria Hospital	70268	510	00035	1	4	1	CATERPLR #1 GENERATOR	20200102	0.85	N
2007	Inova Alexandria Hospital	70268	510	00035	1	4	2	CATERPLR #2 GENERATOR	20200102	0.85	N
2007	Surface Deployment Distribution Command	73362	510	00367	1	1	2	G-2 Cummins Onan diesel genset	39999992	0.20	N
2007	Surface Deployment Distribution Command	73362	510	00367	1	1	1	G-1 Cummins Onan diesel genset	39999992	0.84	N
2007	Danville City - Department of Utilities	32037	590	00152	1	1	1	Generator - distillate oil	20200401	0.45	N
2007	Danville City - Department of Utilities	32038	590	00153	1	1	1	Generator - distillate oil	20200401	0.38	N
2007	Verizon Virginia Incorporated - Lee Highway	73301	600	00848	1	1	1	Two 1000 kW Generators	39999992	0.52	N
2007	Franklin City - Electric Dept - Mechanic Street	60182	620	00011	1	1	1	2 DIESEL GENERATORS	20100102	5.82	N
2007	Franklin City - Pretlow Power Plant	61419	620	00056	1	1	1	2 - PEAK SHAVING GENERATORS	20200401	0.04	N
2007	The Harrisonburg Electric Commission	81272	660	00146	1	1	1	RROYCEAVON1533 OIL TURBI	20100101	4.63	N
2007	The Harrisonburg Electric Commission	81272	660	00146	2	2	1	Caterpillar model 3516B compression ignition engine driven electri generator	20100102	0.83	N

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Year	**Plant Name**	**Reg #**	**FIPS**	**Plant ID**	**Stack #**	**Point #**	**Seg #**	**Segment Description**	**SCC**	**NO_2 TPY**	**Submitted with initial 2007 inventory?**
2007	The Harrisonburg Electric Commission	81272	660	00146	3	3	1	Caterpillar Model 3516B D-6 generator	20200102	1.01	N
2007	Harrisonburg Electric Commission - Mt Clinton Pike	81342	660	00155	1	1	1	Stationary Gas Turbine #2	20100101	2.92	N
2007	Harrisonburg Electric Commission - Mt Clinton Pike	81342	660	00155	2	2	1	Caterpillar model 3516B-D2 compression-ignition engine driven generator	20100102	1.03	N
2007	Harrisonburg Electric Commission - Mt Clinton Pike	81342	660	00155	3	3	1	Caterpillar model 3516B -D3 compression-ignition engine driven generator	20100102	0.94	N
2007	Harrisonburg Electric Commission - Mt Clinton Pike	81342	660	00155	4	4	1	Caterpillar model 3516B -D5 compression-ignition engine driven generator	20100102	0.95	N
2007	City of Manassas - Gateway Generation	73642	683	00155	1	1	1	EU01*1825 kW Caterpillar/ kW-hrs	39999991	2.80	N
2007	City of Manassas - Portable Genset 1	73569	683	73569	1	1	1	PG-1*Caterpillar 3516B- kW-Hours	39999991	2.32	N
2007	City of Manassas - Portable Genset 2	73570	683	73570	2	2	1	PG-2*Caterpillar 3516B- kW-hours	39999991	2.09	N
2007	Salem Water Treatment Plant	21403	775	00252	1	1	1	Emergency Diesel Generator	39999992	4.90	N
								Total of NOx for units submitted with initial 2007 inventory:		***530.12***	
								Total of NOx for units not submitted with initial 2007 inventory:		***155.88***	
								Total NOx, all DG units:		***686.00***	