STATE OF MICHIGAN
DEPARTMENT OF ATTORNEY GENERAL

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**JENNIFER MULHERN GRANHOLM**
ATTORNEY GENERAL

October 1, 2001

Ms. Dorothy Wideman
Executive Secretary
Michigan Public Service Commission
6545 Mercantile Way, Ste. 7
Lansing, MI 48911

Dear Ms. Wideman:

***RE: MPSC Case No. U-12487***

Enclosed please find for transmittal and filing an original and 4 copies of the Michigan Public Service Commission Staff's Method for Calculating Regional Electric Generation Fuel Mix and Emission Data along with Proof of Service regarding the above-entitled matter.

Very truly yours,

David M. Gadaleto (P30163)
Assistant Attorney General
Public Service Division
Telephone: (517) 241-6680

DMG/mrp
Enclosures
cc: All parties of record

State of Michigan
**John Engler, Governor**

Department of Consumer & Industry Services
**Kathleen M. Wilbur, Director**

**Public Service Commission**

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**Commissioners**
Laura Chappelle
David A. Svanda
Robert B. Nelson

# Methods for Calculating Regional Electric Generation Fuel Mix and Emission Data

**Issued: September 30, 2001**

**To:** All Interested Persons

The attached "Methods for Calculating Regional Electric Generation Fuel Mix, Emissions, and Nuclear Waste Data" is the Michigan Public Service Commission (MPSC) Staff's final method for calculating regional fuel mix and emissions characteristics as provided under Michigan PA 141 of 2000. As directed by the MPSC in its June 5, 2001, order in Case No. U-12487, Commission Staff distributed for public review its proposed methods and data sources for determining the regional average fuel mix, average emissions, and nuclear waste.

Based on the Staff's draft proposal and the comments received, Staff sets forth its final recommendations in the attached document. This document includes requirements for the regional disclosures, summary of comments received, discussion, and the final method to be used by Staff in preparing these estimates. As directed by the Commission in Case No. U-12487, no changes may be made to this final method after September 30, 2001, unless approved by the Commission.

The attached methods will be used by Commission Staff to provide suppliers with regional information for the fuel mix, emissions, and nuclear waste disclosures. Questions or clarifications regarding the methods should be directed to Jack Mason at (517) 241-6172, or by email at Jack.L.Mason@cis.state.mi.us.

## I. Requirements for the Regional Disclosures

**Michigan Customer Choice and Electricity Reliability Act, Public Act 141 of 2000 (PA 141)**. Provisions of PA 141 require that electric suppliers use a regional average fuel mix and emissions data when the fuel mix cannot otherwise be determined. Section 10r (3) of the act states:

> "The commission shall require that, starting January 1, 2002, all electric suppliers disclose in standardized, uniform format on the customer's bill with a bill insert, on customer contracts, or, for cooperatives, periodicals issued by an association of rural electric cooperatives, information about the environmental characteristics of electricity products purchased by the customer, including all of the following:
>
> (a) The average fuel mix, including categories for oil, gas, coal, solar, hydroelectric, wind, biofuel, nuclear, solid waste incineration, biomass, and other fuel sources. If a source fits into the other category, the specific source must be disclosed. A regional average, determined by the commission, may be used only for that portion of the electricity purchased by the customer for which the fuel mix cannot be discerned. For the purposes of this subdivision, "biomass" means dedicated crops grown for energy production and organic waste.
>
> (b) The average emissions, in pounds per megawatt hour, [of] sulfur dioxide, carbon dioxide, and oxides of nitrogen. An emissions default, determined by the commission, may be used if the regional average fuel mix is being disclosed.
>
> (c) The average of the high-level nuclear waste generated in pounds per megawatt hour.
>
> (d) The regional average fuel mix and emissions profile as referenced in subsection (3)(a), (b), and (c)."

Among other things, the Commission's June 5, 2001 order, in Case No. U-12487, to implement the regional fuel mix and emissions data provisions states:

> "The development of the regional average fuel mix and emissions default data should be subject to public input. As soon as possible following issuance of this order, the Staff shall formulate a methodology for calculation of these values and shall serve the methodology on all known suppliers and other interested persons and post it on the Commission's Web site. The methodology shall involve use of data from sources that are readily accessible and easily verifiable. The Staff shall clearly identify each source of information upon which it intends to rely. Any interested person may contact the Staff before August 31, 2001 to suggest a refinement in either the methodology or the addition or deletion of a source. The Staff may adopt or reject such proposed refinements as it deems appropriate, but it shall clearly identify any changes and disclose them to the public by September 30, 2001. After September 30, 2001, the Staff shall not revise the methodology or substitute a source of data without approval from the Commission.

> The regional average fuel mix and emissions default to be prepared for use beginning January 1, 2002 shall be based on the most recent 12 months data that is available. The Staff shall ensure that, to the extent practical, the methodology, the period of time over which the data are obtained, and the sources of the data remain consistent."

The Commission established certain guidelines in the June 5 order for the disclosures, which are relevant to the regional information:

- "All suppliers required to calculate and disclose supplier specific information shall use data as reported to the EIA for preparation of fuel mix data. Suppliers shall use data as reported to the EPA for reporting emissions of sulfur dioxide and oxides of nitrogen. Carbon dioxide emissions data for all fuel categories shall be taken from data available from the Department of Energy."
- "Suppliers shall use the most recent data that are available for their annual disclosures," which, according to PA 141 of 2000, should be based on a "rolling annual average."
- Section 10r(1)(a) of PA 141 provides that the standards to be adopted by the Commission shall "not be unduly burdensome," and Section 10(r)(4) states, "Emissions factors will be based on annual publicly available data by generation source."
- The term "region" adopted by the Commission includes the states of Michigan, Illinois, Indiana, Ohio, and Wisconsin. This region is also referred to as the "East North Central Region."

## II. Summary of Comments Received

Staff prepared a proposed method and distributed it to interested parties on August 2, 2001. The proposal was also posted on the Commission's Web site. Comments on the proposal were due on August 31, 2001. Comments on the proposal were received from four parties.

**Northern States Power Company, Wisconsin.** Northern States Power recommends that refuse-derived fuel (RDF), tire-derived fuel (TDF), and waste be included in the "biomass" category. These fuels are not covered under PA 141 and were not explicitly dealt with in the Staff's draft proposal.

**Consumers Energy Company.** Consumers requests that regional data be made available by November 1, instead of November 30, to allow suppliers time to incorporate the information into their printed materials.

Consumers notes that one figure from the Energy Information Administration's (EIA) data is obviously in error. Consumers reviewed the EIA data underlying the Staff's calculations and found that the Ohio "Other Waste" generation figure is much too high. Consumers notes that the U.S. Environmental Protection Agency (EPA) has a database, called E-GRID, containing information which appears to be of sufficient detail to be used for the regional disclosures and that has more detail than EIA regarding the renewable fuel generation categories.

With respect to nuclear waste, Consumers provides a method of calculation for nuclear waste

emissions.

**Michigan Environmental Council.** The Council agrees with the regional fuel mix and emissions data sources which Staff used in its draft proposal. Second, the Council expressed deep concerns about the omission of high-level nuclear waste data in the Staff's draft proposal.

**Michigan Electric and Gas Association (MEGA).** MEGA comments include a:

1. Request for Staff to provide regional data by October 31, rather than November 30. This would facilitate incorporation into supplier disclosure statements which must be available the following January.
2. Proposal to use annual data for the most recent calendar year for reporting fuel mix and emissions.
3. Suggestion that a footnote is needed to clarify that the emissions data has a two-year lag. (1999 is the most recent data currently available for the emissions breakdown.)
4. Proposal to use Continuous Emission Monitors data for the emissions data rather than the Staff's proposed EIA data. MEGA indicates that the EIA emissions data may understate emissions by 10-15 percent, and would result in understated regional emissions.
5. Recommendation that if the "other" category comprises less than 0.5 percent of the total mix, then a single percentage for the total "other" should be sufficient, and no further breakdown should be necessary.
6. Suggestion that the emissions data should be reported on emissions per total generation mix and not per fossil generation as in the Staff draft proposal.
7. Comment that "emissions" is a confusing term for nuclear waste, which is not emitted but which is a waste product.

## III. Discussion and Conclusions

Several parties commented that the November 30 deadline for posting the regional averages provided insufficient time for suppliers to incorporate the regional information into their literature/disclosures. This is a reasonable request, and the data will be posted on the MPSC Web site by November 1 of each year.

With respect to the fuel mix data, Staff has reviewed the Ohio "Other Waste" category noted by Consumers in its comments. Consumers indicates that the latest data for Ohio is for the year 1992, and Staff will simply note that this 1992 data will not be used in the Staff's calculation. Table C7 of the EIA Renewable Energy Annual 2000 is the reference table to be used for the Staff calculation, and this table indicates zero generation for "Other Waste" for Ohio for the year 1999.

Also, Staff reviewed the EPA's E-GRID database for the potential of using the EPA data for both the fuel mix and emissions regional data. At this time Staff believes that the EIA data is sufficient and is more timely than the E-GRID data. The E-GRID database is a time series and cross-sectional database of information related to electric generation and generators in the U.S. State summary compilations are easily made using the database, and these can be summed to the five state regional

totals.

However, the EPA data currently has a longer lag for generating fuel mix than does the EIA data. The most recent fuel mix calculation from E-GRID is calendar year 1998, whereas the EIA data should permit a fuel mix calculation for calendar year 2000, assuming a target date of November 1 for posting to the MPSC Web site. Furthermore, the EPA generation data is obtained from the EIA -- although a spot check of the data indicates that the generation figures are not an exact match.

Staff has made a change to the fuel mix categories. In the draft proposal, "Other" was used to designate the total of the renewable fuel categories. This is now presented as "Renewable Fuels." This change was made because PA 141 lists a number of categories to be presented, including "other fuel sources." PA 141 does not define the "other fuel sources" category, except to say that, "If a source fits into the other category, the specific source must be disclosed." The final Staff method also adds "wood," which is not included in the PA 141 list of specific fuels.

MEGA commented that the EIA data would understate emissions by 10-15 percent. Staff completed a preliminary comparison of the EIA and E-GRID emission's data for the 1998 calendar year, the latest year available in the E-GRID database. For the region, the EPA data shows emissions for SO2 and for CO2 to be about 10 percent greater than EIA, but for NOx the EPA compilation is 18 percent lower than EIA. The generation figures were just 0.4 percent apart. This review suggests that the differences between EIA and EPA are in need of further reconciliation, but definitive conclusions cannot be made at this time.

Staff concludes that the EIA data should be used. Staff also concludes that the EPA data and the EIA data should be reviewed, evaluated, and reconciled along with any other data sources on a regular basis to ensure the Michigan disclosures rely on the most timely and reliable sources.

Staff agrees with Northern States Power that biomass should include any generation with tires, waste, and wood materials. The U.S. Department of Energy (DOE) includes these as biomass in its renewables energy classification scheme, and Staff is following this scheme.

In Staff's proposal, a 0.5 percent minimum was set for the reporting of regional fuel mix categories. In reviewing the data, this limit is changed to 0.1 percent for the regional calculations. This rejects the MEGA recommendation.

With respect to nuclear waste, Staff is including high-level nuclear waste as outlined in the following method. Recent data has not been published and, after additional research, Staff has been able to obtain an EIA database containing individual plant data. This data generally is provided to the DOE on Form RW-859, which is a compilation of all fuel assemblies irradiated in commercial nuclear reactors in the U.S. The latest survey data available is 1998.

The information compiled for Staff's regional calculation is the level of nuclear fuel waste for the most recent fuel cycle for each nuclear plant in the region. Average pounds of waste per unit of output decreases slightly as the fuel becomes more enriched, and the calculation using this data is expected to yield a nuclear fuel waste figure slightly higher than the current actual waste amount per

megawatt-hour of output. Also, Staff agrees with the comment that nuclear waste is not "emitted," and should be labeled as a waste product.

The use of the "most recent" 12 months of data will be employed where the data is available versus the most recent calendar year data. This reflects the Commission's June 5 order which says, "The regional average fuel mix and emissions default to be prepared for use beginning January 1, 2002 shall be based on the most recent 12 months data that is available."

It is clear that the emissions and nuclear waste data will continue to have different historic time periods, based on the available data, and these will be notated on the Staff's summary data. This was the case with the calculations provided in the Staff's draft proposal and will continue to be the case for the foreseeable future. Regional data compilations do not allow and are not expected to provide a recent 12-month snapshot for these disclosure items. This is especially true for nuclear waste as is outlined in the attached final methodology.

It is also clear that individual suppliers may have different time periods for their fuel, emissions, and nuclear waste mix data. This is especially true with respect to the nuclear waste data, for which individual suppliers (generally incumbent utilities) would be expected to have more recent data than that which is available from the EIA database.

To assist consumers, it should be noted that the different time periods are a necessary artifact of data availability. It may also be necessary to inform customers that the most important comparison for shopping purposes is to compare one supplier with another rather than to compare the regional mix with the individual supplier mix.

With respect to the regional emissions and nuclear waste calculations. Staff will calculate the emissions amounts based on the fossil generation total. The nuclear waste figure is based on nuclear generation. These are easily scaled (down) to total regional generation based on the relative proportions of fossil and nuclear generation, respectively, to total regional generation. Additionally, it may be appropriate for Staff to post the emissions and nuclear waste figures based on each of these measures.

Finally, the Staff's draft proposal also contained calculated emissions that were incorrect. The emissions data shown were in error by a factor of 1,000, due to a misread of the EIA emissions data. This is corrected on the attached final proposal calculations.

**Michigan Department of Consumer & Industry Services**
**Michigan Public Service Commission**

# Methods for Calculating Regional Electric Generation Fuel Mix, Emissions, And Nuclear Waste Disclosure Data

**Issued: September 30, 2001**

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Section 10(r) of Michigan PA 141 of 2000 requires electricity suppliers to disclose customer information related to the suppliers' fuel mix and emissions and requires that electric suppliers use a regional average fuel mix and emissions data when the fuel mix cannot otherwise be determined, along with the regional electric generation fuel mix, emissions, and nuclear waste characteristics. The Michigan Public Service Commission (MPSC) in its June 5, 2001 order, in Case No. U-12487, directed Commission Staff to calculate and make available the regional electricity generation and environmental characteristics to be used by all of Michigan's generation providers. The methods that Staff will be using to prepare the regional data are outlined below.

## Reporting by MPSC Staff

The MPSC Staff will update the regional generation characteristics information once a year. The update will be completed and made available on the MPSC Web site by November 1 of each year.

## Fuel Sources, Emissions, and Nuclear Waste Data Sources

Data on the kilowatt-hour (kWh) generation by fuel source is published in the Energy Information Administration's (EIA), **Electric Power Monthly** (DOE/EIA-0226). The publication is available on the EIA Web site at:

http://www.eia.doe.gov/cneaf/electricity/epm/epm sum.html

Specifically, Tables 8-13 show the sources for utility generation, and Tables 62-66 show non-utility generation. There is a four-month lag before the data is published by EIA under the current publication schedule.

A breakdown of the "Other Energy Sources" from the above publication is published in EIA's **Renewable Energy Annual**, Table C7 "Renewable Electric Power Industry Net Generation by State," at:

http://www.eia.doe.gov/cneaf/solar.renewables/page/rea_data/rea_sum.html

This data is published annually and is calendar year data. This report is published in March of each year and has a two-year lag in the data. This means that by November of each year, data for the prior calendar year should be available. Data for both of the reports listed is collected by EIA from utility and non-utility generators on Forms EIA-759, "Monthly Power Plan Report," EIA-900, "Monthly

Non-utility Power Report," and EIA-860B, "Annual Electric Generation Report-Non-utility."

Emissions (sulfur dioxide, nitrogen oxides, and carbon dioxide) data is reported in each edition of EIA's **Electric Power Annual** (DOE/EIA-0348), Volume II, which is available on the EIA Web site at:

http://www.eia.doe.gov/cneaf/electricity/epav2/epav2_sum.html

The data can be found in Table 24, "Estimated Emissions from Fossil-Fueled Steam-Electric Generating Units at U.S. Electric Utilities by Census Division and State," and Table 63, "Estimated Emissions from U.S. Non-utility Generating Facilities by Census Division." These published figures are based on the Environmental Protection Agency (EPA) "Compilation of Air Pollutant Emission Factors" (Volume 1: Stationary Point and Area Sources) pollution calculations by generation source, which shows emissions per unit of input.

The emissions data is collected by EIA on Forms EIA-759, "Monthly Power Plan Report," EIA-900, "Monthly Non-utility Power Report," and EIA-767, "Steam-Electric Plant Operation and Design Report," submitted by utility and non-utility generators.

Nuclear waste, for purposes of this disclosure, is the amount of nuclear fuel waste produced by the nuclear generation plants in the five-state region. The state level data is available from EIA, as noted on the EIA Web site at:

http://www.eia.doe.gov/cneaf/nuclear/spent_fuel/ussnfdata.html

The database is available on CD-ROM. The database has individual plant information, which is supplied by each utility, and the database variable used for the regional calculation is megawatt-days per metric ton of fuel discharged. The data is compiled from EIA Form RW-859. The individual plant waste calculations are weighted to a regional average based on the output of each plant. Nuclear generation by plant is available on the EIA Web site at:

http://www.eia.doe.gov/cneaf/nuclear/generation/usreact.html

It is important to note that the weighting by generation or plant rating does not yield a nuclear waste figure significantly different than a simple average of the waste levels for each plant for a regional or national level calculation.

Table A, which follows, summarizes the sources for the fuel mix and emissions data.

**Calculation Method: Fuel Sources**

Generation by fuel type in megawatt-hours (MWh) is summed for the five-state East North Central Region (Michigan, Illinois, Indiana, Ohio, and Wisconsin) and includes utility generation plus non-utility generation from the relevant EIA report tables. Total generation is utility generation plus non-utility generation from the EIA report tables.

The portions for each fuel are calculated and presented as a percentage of total generation. Data is presented as whole number percentages and rounded to the nearest whole number. Fuel percentages that are less than 0.1percent shall be given as less than 0.1percent, and not rounded to zero. If the sums of the individual fuel type percentages do not total 100 percent, the fuel type with the largest percentage (now coal) shall be adjusted so that the sum of percentages yields a total of 100 percent.

For each fuel type, the regional percentage is calculated by the following formula:

*Fuel type percentage = ENC Generation by fuel type / ENC Total generation*

For the renewable fuels category, the most recent annual estimates from EIA are used to prorate the Electric Power Monthly, Table 13, estimate for "net generation from other fuel sources." Other energy sources include geothermal, wood, wind, waste, and solar, according to EIA.

**Calculation Method: Emissions**

Emissions values for sulfur dioxide, nitrogen oxides, and carbon dioxide are summed for the states of Michigan, Illinois, Indiana, Ohio, and Wisconsin to calculate the regional total. This data is reported in thousand short tons, which are converted to pounds by multiplying the totals by the value 2000 (2,000 pounds per short ton).

To calculate pounds of emissions per MWh, as required in PA 141, the emissions data is divided by the total electric generation by fossil fuel sources (coal, petroleum, and gas) in the five-state region.

For each emissions type, the regional emissions are calculated by the following formula:

*Emissions per MWh = ENC Emissions / ENC Total generation*

**Calculation Method: Nuclear Waste**

The nuclear waste calculation is an estimate of the average pounds of nuclear fuel discharged per MWh generated for the nuclear plants for the five-state region. The EIA database includes the variable "burn rate" (megawatt-days of thermal energy produced per metric ton of nuclear fuel discharged) for every nuclear fuel bundle removed during the entire operating life of each nuclear plant in the nation.

For the nuclear waste calculation, the burn rate for the most recent operating cycle is used, and at the current time this would be no later than EIA's last survey year of 1998. The fuel cycle for each plant is different, so the most recent cycle for each plant in EIA's database will generally cover about two years of data.

A simple average of the burn rate for the discharged fuel is calculated first. For example, the database shows that Detroit Edison's Fermi nuclear plant data was in its sixth fuel cycle, and that 222 fuel bundles had been removed by the time the reporting period to EIA had ended, with a simple average burn rate of 31,241 megawatt-days per metric ton of fuel discharged.

The simple averages for each plant are then weighted by the generation of the plant relative to the total nuclear generation in the region. This calculation yields a weighted average of the burn rate for the region.

This regional average burn rate is the thermal output of the nuclear fuel and must be converted to electric energy. The Staff conversion assumes the national average heat rate for nuclear generation, which is 10,678 Btu/kWh, or an efficiency of .319. (Source: EIA estimate for the year 1994.)

*Regional average burn rate * .319 = Regional MWD/Mtu, where:*

*MWD = megawatt-days of electric generation,*
*Mtu = metric ton of nuclear fuel discharged.*

The regional MWD figure is then converted to pounds per MWh by applying the following factors:

*Megawatt-day = 24 megawatt-hours;*
*Metric ton = 2,204 pounds.*

Table B presents a summary of fuel source percentages and emissions for the region.

# Table A
# Data Sources and Historic Periods
# Regional Average Electric Power Generation Sources and Emissions

| Fuel Source | Regional Average Data Source | Table | Historic Data Period |
|---|---|---|---|
| Coal | EIA "Electric Power Monthly" | Table 8 | Recent 12 months |
| Nuclear | " | Table 12 | Recent 12 months |
| Gas | " | Table 10 | Recent 12 months |
| Oil | " | Table 9 | Recent 12 months |
| Hydroelectric | " | Table 11 | Recent 12 months |
| Renewable Fuels | EIA "Renewable Energy Annual" | Table C7 | Recent 12 months |
| Biofuel | Not available | | |
| Biomass | EIA "Renewable Energy Annual" | Table C7 | Recent 12 months |
| Solar | " | Table C7 | Recent 12 months |
| Solid Waste Incineration * | " | Table C7 | Recent 12 months |
| Wind | " | Table C7 | Recent 12 months |
| Wood | " | Table C7 | Recent 12 months |

| Emission/Waste | Regional Average Data Source | Table | Historic Data Period |
|---|---|---|---|
| Sulfur Dioxide | EIA "Electric Power Annual, Vol. II" | Tables 24, 63 | Calendar Year |
| Carbon Dioxide | " | Tables 24, 63 | Calendar Year |
| Oxides of Nitrogen | " | Tables 24, 63 | Calendar Year |
| High-Level Nuclear Waste | EIA database: RW859ALL1998 (ON CD-ROM) | - | Last fuel cycle ending 1998 |

*Incineration includes landfill gas.

Note: Michigan's region for this presentation is comprised of Michigan, Illinois, Indiana, Ohio, and Wisconsin, as ordered by the Michigan Public Service Commission in Case No. U-12487 on June 5, 2001.

# Table B
# Michigan Public Service Commission
# Compilation of Regional Data for Electric Supplier Disclosures
# Electric Power Fuel Sources and Emissions, and Nuclear Waste

| **Fuel Source**<br><br>For the 12-month Period (month/year-to-month/year) 11/1999 to 10/2000 | **Regional Average Fuel Mix Used to Generate Electricity in Michigan, Illinois, Indiana, Ohio, and Wisconsin** |
|---|---|
| Coal | 72 % |
| Nuclear | 21 % |
| Gas | 4 % |
| Oil | 1 % |
| Hydroelectric | 1 % |
| Renewable Fuels | 1 % |
| Biofuel | - - |
| Biomass | .13 % |
| Solar | - - |
| Solid Waste Incineration* | .28 % |
| Wind | - - |
| Wood | .59 % |

| **Emission/Waste in Pounds per Megawatt-hour** | **Regional Average Emissions for Fossil/Nuclear Generation respectively for Michigan, Illinois, Indiana, Ohio, and Wisconsin** |
|---|---|
| Sulfur Dioxide | 14.6 |
| Carbon Dioxide | 2,033.1 |
| Nitrogen Oxides | 7.8 |
| High-Level Nuclear Waste | .0074 |

(1) *Includes landfill gas; (2) "- -" is not applicable or negligible; (3) Emissions rates are per megawatt of regional fossil generation; Nuclear waste rate is per megawatt of regional nuclear generation; (4) Sulfur Dioxide, Carbon Dioxide, and Nitrogen Oxides are for calendar year 1998; (5) Nuclear waste produced is based on the most recent fuel cycle periods for the region's nuclear plants, ending in 1998 and approximately 2 years in length.

Prepared by: the Staff of the Michigan Public Service Commission, Executive Secretary Division, Statistical Analysis Section.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own Motion, to implement the customer information and environmental Notice requirements of 2000 PA 141.

Case No. U-12487

_____/

**PROOF OF SERVICE**

STATE OF MICHIGAN )
) ss
COUNTY OF INGHAM )

Mishelle R. Pagels, being first duly sworn, deposes and says that on October 1, 2001, she served a copy of Michigan Public Service Commission Staff's Method for Calculating Regional Electric Generation Fuel Mix and Emission Data upon the following parties by e-mail and depositing the same in a United States postal depository enclosed in an envelope bearing postage fully prepaid, plainly addressed as follows:

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**ID MAIL**
Honorable Daniel E. Nickerson
Administrative Law Judge
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Lansing, MI 48911

Michelle R. Pagels

Subscribed and sworn to before me
this 1st day of October, 2001.

Pamela A. Walters, Notary Public
Ingham County, Michigan
My Commission Expires: 02/04/2003