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REVISED 2010 LONG-TERM
FORECAST REPORT AND
RESOURCE PLAN

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DUKE ENERGY OHIO, INC.

REVISED 2010 ELECTRIC LONG-TERM FORECAST REPORT AND RESOURCE PLAN

CASE NO. 10-503-EL-FOR

STATEMENT
OF
JULIA S. JANSON
PRESIDENT, DUKE ENERGY OHIO, INC.

I, Julia S. Janson, President of Duke Energy Ohio, Inc., hereby certify that the statement and modifications set forth in the REVISED 2010 DUKE ENERGY OHIO LONG-TERM ELECTRIC FORECAST REPORT AND RESOURCE PLAN as submitted to the Public Utilities Commission of Ohio are true and correct to the best of my knowledge and belief.

I further certify that the requirements of Ohio Administrative Code §4901:5-1-03, paragraphs (F) to (I) will be met.

Julia S. Janson
President
Duke Energy Ohio, Inc.

CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of Duke Energy Ohio, Inc.'s Revised 2010 Long-Term Forecast Report and Resource Plan was served by First Class U.S. Mail, postage prepaid, this 11 day of October, 2010 upon the following:

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Furthermore, a Letter of Notification was sent by First Class U.S. Mail to each library listed in the report.

Elizabeth H. Watts
Elizabeth H. Watts
Assistant General Counsel
Duke Energy Business Services

Libraries Receiving a Letter of Notification

Regarding Duke Energy Ohio, Inc.'s Revised 2010
Long-Term Forecast Report and Resource Plan

County	Library	Address
Adams	Manchester Branch Library	401 Pike St. Manchester, Ohio 45144
Brown	Mary P. Shelton Library	200 West Grant Avenue Georgetown, Ohio 45121
Butler	Lane Public Library	300 North Third Street Hamilton, Ohio 45011
Butler	Middletown Public Library	125 South Broad Street Middletown, Ohio 45044
Clermont	Clermont County Public Library	180 South Third Street Batavia, Ohio 45103
Clinton	Wilmington Public Library	268 North South Street Wilmington, Ohio 45117
Hamilton	Public Library of Cincinnati and Hamilton County University of Cincinnati Library Reference Division	800 Vine Street Cincinnati, Ohio 45202 2600 Clifton Avenue Cincinnati, Ohio 45221
Highland	Highland County District Library	10 Willettsville Pike Hillsboro, Ohio 45133
Montgomery	Dayton and Montgomery County Public Library	215 East Third Street Dayton, Ohio 45402
Preble	Preble County District Library	301 North Barron Street Eaton, Ohio 45320
Warren	Lebanon Public Library	101 South Broadway Lebanon, Ohio 45036

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SECTION I – FORECAST REPORT REQUIREMENTS

A. SUMMARY OF THE LONG-TERM FORECAST REPORT

Duke Energy Ohio provides electric service to approximately 683,000 customers in an area covering some 2,500 square miles in Southwestern Ohio. Duke Energy Ohio's service territory includes the cities of Cincinnati and Middletown, Ohio. Duke Energy Kentucky provides electric service in the Northern Kentucky area contiguous to the Southwestern Ohio area served by Duke Energy Ohio. Duke Energy Kentucky serves approximately 135,000 electric customers in its 500 square mile service territory. Duke Energy Kentucky's service territory includes the cities of Covington and Newport, Kentucky. Duke Energy Ohio and Duke Energy Kentucky operate within the regional economy as defined by the Cincinnati Primary Metropolitan Statistical Area (PMSA). Therefore, the Company prepares the forecast for the entire region encompassing both utility service areas. This consolidated forecast is then allocated to each service area. Subsequently, this report covers the forecast for Duke Energy Ohio only.

As of December 2009, the transmission system of Duke Energy Ohio consisted of approximately 403 circuit miles of 345 kV lines (including Duke Energy Ohio's share of jointly-owned transmission) and 724 circuit miles of 138 kV lines. Portions of the 345 kV transmission system are jointly owned with Columbus Southern Power Company and/or the Dayton Power & Light Company. Duke Energy Ohio is interconnected with five other transmission providers (including Duke Energy Indiana).

The electric energy and peak demand forecasts of the Duke Energy Ohio franchised service territory are prepared each year as part of the planning process.

The general framework of the Electric Energy and Peak Load Forecast involves a national economic forecast, a service area economic forecast, and the electric load forecast.

The national economic forecast provides information about the prospective growth of the national economy. This involves projections of national economic and demographic concepts such as population, employment, industrial production, inflation, wage rates, and income. The national economic forecast is obtained from Economy.com, a national economic consulting firm.

Similarly, the history and forecast of key economic and demographic concepts for the service area economy is obtained from Economy.com. The service area economic forecast is used along with the energy and peak models to produce the electric load forecast.

Energy sales projections are prepared for the residential, commercial, industrial, and other sectors. Those components plus electric system losses are aggregated to produce a forecast of net energy.

Table 1-1 below, provides information on the Duke Energy Ohio System projected annual growth rates in energy for the major customer classes as well as net energy and peak demand before implementation of any new or incremental energy efficiency programs. The growth rates are consistent with the forecast presented in the FE-D forms in Section 3 and represent the full distribution forecast regardless of who supplies the energy. The forecast has been reduced for the anticipated impacts of the Energy Independence and Security Act of 2007 (EISA).

TABLE 1-1
Duke Energy Ohio System

ELECTRIC ENERGY AND PEAK LOAD

FORECAST: ANNUAL GROWTH RATES

	2010-2030
Residential MWH	0.1%
Commercial MWH	0.6%
Industrial MWH	0.9%
Net Energy MWH	0.4%
Summer Peak MW	0.3%
Winter Peak MW	0.0%

The forecast of energy is graphically depicted on Figure 1-1, and the summer and winter peak forecasts are shown on Figure 1-2.

Please note that the FE-T forms in Section II represent the load supplied by the regulated utility. These forecasts of energy and peak demand provide the starting point for the development of the Integrated Resource Plan. As such, the first two years of the forecast reflect energy and peak reduced for current switching levels, i.e. load supplied by the regulated utility. The remaining years of the forecast reflect the assumption that all load returns to the regulated utility and the end of the ESP.

Changes In Methodology

There were no significant changes to the forecast methodology. The Company uses the latest historical data available and relies on recent economic data and forecasts from Economy.com.

Figure 1.1

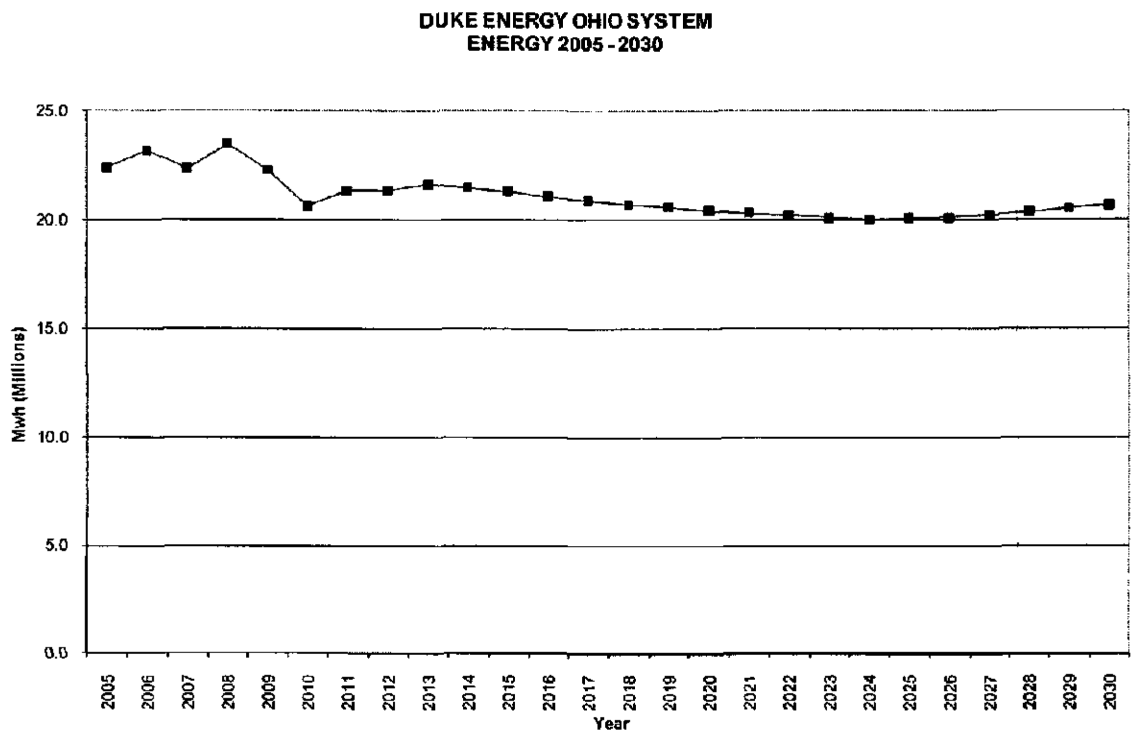
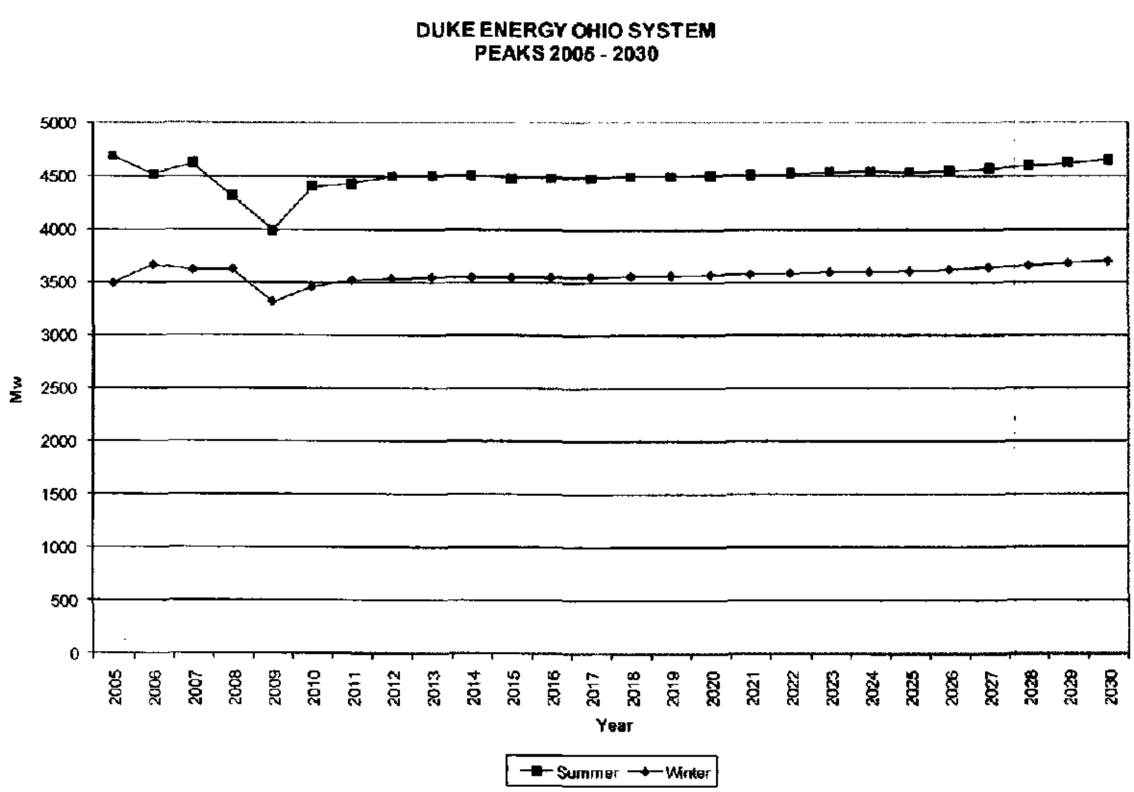


Figure2.2



The electric energy and peak demand forecasts of the Duke Energy Ohio service territory are prepared each year as part of the planning process by a staff that is shared with the other Duke Energy affiliated utilities, using the same methodology. Duke Energy Ohio does not perform joint load forecasts with non-affiliated utility companies, and the forecast is prepared independently of the forecasting efforts of non-affiliated utilities.

B. FORECAST SUMMARY & ASSUMPTIONS

The forecast methodology is essentially the same as that presented in past Electric Long-Term Forecast Reports Plans filed with the Public Utilities Commission of Ohio (Commission). Energy is a key commodity linked to the overall level of economic activity. As residential, commercial, and industrial economic activity increases or decreases, the use of energy, or more specifically electricity, should increase or decrease, respectively. It is this linkage to economic activity that is important to the development of long-range energy forecasts. For that reason, forecasts of the national and local economies are key ingredients to energy forecasts.

The general framework of the Electric Energy and Peak Load Forecast involves a national economic forecast, a service area economic forecast, and the electric load forecast. The national economic forecast provides information about the prospective growth of the national economy. This involves projections of national economic and demographic concepts such as population, employment, industrial production, inflation, wage rates, and income. The national economic forecast is obtained from Moody's Economy.com, a nationally recognized vendor of economic forecasts. In conjunction with the forecast of the national economy, the Company also obtains a forecast of the service area economy from Moody's Economy.com.

The Duke Energy Ohio service area is located in southwestern Ohio adjacent to the service area of Duke Energy Kentucky. The economy of southwestern Ohio is contained within the Cincinnati Primary Metropolitan Statistical Area (PMSA) and is an integral part of the regional economy. The service area economic forecast is used along with the energy and peak models to produce the electric load forecast.

1. Service Area Economy

There are several sectors to the service area economy: employment, income, inflation, production, and population. Forecasts of employment are provided by North American Industry Classification System (NAICS) and aggregated to major sectors such as commercial and industrial. Income for the local economy is forecasted in several categories including wages, rents, proprietors' income, personal contributions for social insurance, and transfer payments. The forecasts of these items are summed to produce the forecast of income less personal contributions for social insurance. Inflation is measured by changes in the Consumer Price Index (CPI). Production is projected for each key NAICS group by multiplying the forecast of productivity (production per employee) by the forecast of employment. Population projections are aggregated from forecasts by age-cohort. This information serves as input into the energy and peak load forecast models.

2. Electric Energy Forecast

The forecast methodology follows economic theory in that the use of energy is dependent upon key economic factors such as income, production, energy prices, and the weather. The projected energy requirements for Duke Energy Ohio's retail electric customers are determined through econometric analysis. Econometric models are a means of representing economic behavior through the use of statistical methods, such as regression analysis.

The Duke Energy Ohio forecast of energy requirements is included within the overall forecast of energy requirements of the Greater Cincinnati and Northern Kentucky region. The Duke Energy Ohio sales forecast is developed by allocating percentages of the total regional forecast for each customer group. These groups include residential, commercial, industrial, governmental or other public authority (OPA), and street lighting energy sectors. In addition, forecasts are also prepared for three minor categories: interdepartmental use (Gas Department), Company use, and losses. In a similar fashion, the Duke Energy Ohio peak load forecast is developed by allocating a share from the regional total. Historical percentages and judgment are used to develop the allocations of sales and peak demands.

The following sections provide the specifications of the econometric equations developed to forecast electricity sales for the franchised service territory.

Residential Sector - There are two components to the residential sector energy forecast: the number of residential customers and kWh energy usage per customer. The forecast of total residential sales is developed by multiplying the forecasts of the two components. That is:

(1) Residential Sales =

Number of Residential Customers * Use per Residential Customer.

Econometric relationships are developed for each of the component pieces of total residential sales.

Customers - The number of electric residential customers (households) is affected by real per capita income. This is represented as follows:

(2) Residential Customers =

f (Real Per Capita Income)

Where: Real Per Capita Income = (Personal Income/Population/CPI).

While changes in per capita income are expected to alter the number of residential customers, the adjustment relating to real per capita income is not immediate. The number of customers will change gradually over time as a result of a change in real per capita income. This adjustment process is modeled using a lag structure.

<u>Residential Use per Customer</u> - The key ingredients that impact energy use per customer are per capita income, real electricity prices and the combined impact of numerous other determinants. These include the saturation of air conditioners, electric space heating, other appliances, the efficiency of those appliances, and weather.

(3) Energy usage per Customer =

f (Real Income per Capita * Efficient Appliance Stock,

Real Electricity Price * Efficient Appliance Stock,

Saturation of Electric Heating Customers,

Saturation of Customers with Central Air Conditioning,

Saturation of Window Air Conditioning Units,

Efficiency of Space Conditioning Appliances,

Billed Cooling and Heating Degree Days).

The derivation of the efficient appliance stock variable and the forecast of appliance saturations are discussed in the data section.

Commercial Sector - Commercial electricity usage changes with the level of local commercial employment, real electricity price, and the impact of weather. The model is formulated as follows:

(4) Commercial Sales =

f (Commercial Employment,

Marginal Electric Price/Consumer Price Index,

Billed Cooling and Heating Degree Days).

Industrial Sector - Duke Energy Ohio produces industrial sales forecasts by NAICS classifications. Electricity use by industrial customers is primarily dependent upon the level of industrial production and the impacts of real electricity prices, electric price relative to alternate fuels, and weather. The general model of industrial sales is formulated as follows:

(5) Industrial Sales =

f (Industrial Production,

Real Electricity Price,

Electricity Price/Alternate Fuel Price,

Billed Cooling and Heating Degree Days).

Governmental Sector - The Company uses the term Other Public Authorities (OPA) to indicate those customers involved and/or affiliated with federal, state or local government. Two categories comprise the electricity sales in the Other Public Authority (OPA) sector: sales to OPA water pumping customers and sales to OPA non-water pumping customers.

In the case of OPA water pumping, electricity sales are related to the number of residential electricity customers, real price of electricity demand, precipitation levels, and heating and cooling degree days. That is:

(6) Water Pumping Sales =

f (Residential Electricity Customers,

Real Electricity Demand Price,

Precipitation,

Cooling Degree Days).

Electricity sales to the non-water pumping component of Other Public Authority is related to governmental employment, the real price of electricity, the real price of natural gas, and heating and cooling degree days. This relationship can be represented as follows:

(7) Non-Water Pumping Sales =

f (Governmental Employment,

Marginal Electric Energy Price/Natural Gas Price,

Billed Cooling and Heating Degree Days).

The total OPA electricity sales forecast is the sum of the individual forecasts of sales to water pumping and non-water pumping customers.

Street Lighting Sector - For the street lighting sector, electricity usage varies with the number of street lights and the efficiency of the lighting fixtures used. The number of street lights is associated with the population of the service area. The efficiency of the street lights is related to the saturation of mercury and sodium vapor lights. That is:

(8) Street Lighting Sales =

f (Population,

Saturation of Mercury Vapor Lights,

Saturation of Sodium Vapor Lights).

Total Electric Sales - Once these separate components have been projected - Residential sales, Commercial sales, Industrial sales, Other Public Authority sales, and Street Lighting sales - they can be summed along with Inter-department sales to produce the projection of total electric sales.

Total System Sendout - Upon completion of the total electric sales forecast, the forecast of total energy can be prepared. This requires that all the individual sector forecasts be combined along with forecasts of Company use, and system losses. After the system sendout forecast is completed, the peak load forecast can be prepared.

Peak Load - Forecasts of summer and winter peak demands are developed using econometric models.

The peak forecasting model is designed to closely represent the relationship of weather to peak loads. Only days when the temperature equaled or exceeded 90 degrees are included in the summer peak model. For the winter, only those days with a temperature at or below 10 degrees are included in the winter peak model.

Summer Peak - Summer peak loads are influenced by the current level of economic activity and the weather conditions. The primary weather factors are temperature and humidity; however, not only are the temperature and humidity at the time of the peak important, but also the morning low temperature, and high temperature from the day before. These other temperature variables are important to capture effect of thermal buildup.

The summer equation can be specified as follows:

(9) Peak =

f (Weather Normalized Sendout,

Weather Factors).

Winter Peak - Winter peak loads are also influenced by the current level of economic activity and the weather conditions. The selection of winter weather factors depends upon whether the peak occurs in the morning or evening. For a morning peak, the primary weather factors are morning low temperature, wind speed, and the prior evening's low temperature. For an evening peak, the primary weather factors are the evening low temperature, wind speed, and the morning low temperature.

The winter equation is specified in a similar fashion as the summer:

(10) Peak =

f (Weather Normalized Sendout,

Weather Factors).

The summer and winter peak equations are estimated separately for the respective seasonal periods. Peak load forecasts are produced under specific assumptions regarding the type of weather conditions typically expected to cause a peak.

Weather-Normalized Sendout - The level of peak demand is related to economic activity. The best indicator of the combined influences of economic variables on peak demand is the level of base load demand exclusive of aberrations caused by non-normal weather. Thus, the first step in developing the peak equations is to weather normalize historical monthly sendout.

The procedure used to develop historical weather normalized sendout data involves two steps. First, instead of weather normalizing sendout in the aggregate, each component is weather normalized. In other words, residential, commercial, industrial, and other public authority, are individually adjusted for the difference between actual and normal weather. Street lighting sales are not weather normalized because they are not weather sensitive. Using the equations previously discussed, the adjustment process is performed as follows:

Let: $KWH(N) = f(W(N))g(E)$

$KWH(A) = f(W(A))g(E)$

Where: $KWH(N)$ = electric sales - normalized

$W(N)$ = weather variables - normal

E = economic variables

$KWH(A)$ = electric sales - actual

$W(A)$ = weather variables - actual

Then: $KWH(N) = KWH(A) * f(W(N))g(E)/f(W(A))g(E)$

$$=KWH(A) * f(W(N))/f(W(A))$$

With this process, weather normalized sales are computed by scaling actual sales for each class by a factor from the forecast equation that accounts for the impact of deviation from normal weather. Industrial sales are weather normalized using a factor from an aggregate industrial equation developed for that purpose.

Second, weather normalized sendout is computed by summing the weather normalized sales with non-weather sensitive sector sales. This weather adjusted sendout is then used as a variable in the summer and winter peak equations.

Peak Forecast Procedure - The summer peak usually occurs in August in the afternoon and the winter peak occurs the following January in the morning. Since the energy model produces forecasts under the assumption of normal weather, the forecast of sendout is "weather normalized" by design. Thus, the forecast of sendout drives the forecast of the peaks. In the forecast, the weather variables are set to values determined to be normal peak-producing conditions. These values are derived using historical data on the worst weather conditions in each year (summer and winter).

National Economy

It is generally assumed that the Duke Energy Ohio service area economy will tend to react much like the national economy over the forecast period. Duke Energy Ohio uses a long-term forecast of the national and service area economy prepared by Moody's Economy.com.

No major wars or energy embargoes are assumed to occur during the forecast period. Even if minor conflicts and/or energy supply disruptions, such as those caused by hurricanes, occur during the forecast period, the long-range path of the overall forecast would not be dramatically altered.

A major risk to the national and regional economic forecasts and hence the electric load forecast is the continued economic growth in the U.S. economy. While the national and local economies have been experiencing the effects of a decline in economic activity since the fourth quarter of 2007, there are strong signs that the economy is recovering. The ultimate outcome in the near term is dependent upon the success of the economy moving forward out of this slow period.

With extensive economic diversity, the Cincinnati area economy, including Northern Kentucky, is well structured to withstand an economic slowdown and make the adjustments necessary for growth. In the manufacturing sector, its major industries are food products, paper, printing, chemicals, steel, fabricated metals, machinery, and automotive and aircraft transportation equipment. In the non-manufacturing sector, its major industries are life insurance and finance. In addition, the Cincinnati area is the headquarters for major international and national market-oriented retailing establishments.

In late 2007, President Bush signed the Energy Independence and Security Act part of which sets new efficiency standards for lighting starting in 2012.

According to a white paper from the Lighting Controls Association, "New Energy Law to Phase Out Today's Common Incandescent Lamps, Probe-Start Metal Halide Magnetic Ballasted Fixtures" by Craig DiLouie, the new legislation "virtually eliminates the manufacture of most common general-service incandescent lamps…" and "Lamps that do not comply on or after the effective dates cannot be manufactured or imported." According to the Association, they believe that compact fluorescent light bulbs (CFLs) will capture the entire general incandescent market. Therefore, the Company estimated the impact of this legislation on lighting load and reduced the forecast accordingly.

Local Economy

Forecasts of employment, local population, industrial production, and inflation are key indicators of economic and demographic trends for the Duke Energy Ohio service area. The majority of the employment growth over the forecast period occurs in the non-manufacturing sector. This reflects a continuation of the trend toward the service industries and the fundamental change that is occurring in manufacturing and other basic industries. The rate of growth in local employment expected over the forecast will be below the national level: 0.3 percent locally versus 1.0 percent nationally.

Duke Energy Ohio is also affected by national population trends. The average age of the U.S. population is rising. The primary reasons for this phenomenon are stagnant birth rates and lengthening life expectancies. As a result, the portion of the population of the Duke Energy Ohio service area that is "age 65 and older" increases over the forecast period. Over the period 2010 to 2030, Duke Energy Ohio's population is expected to increase at an annual average rate of 0.3 percent. Nationally, population is expected to grow at an annual rate of 0.9 percent over the same period.

For the forecast period, local industrial production is expected to increase at a 0.5 percent annual rate, while 1.2 percent is the expected growth rate for the nation.

The residential sector is the largest in terms of total existing customers and total new customers per year. Within the Duke Energy Ohio service area, many commercial customers serve local markets. Therefore, there is a close relationship between the growth in local residential customers and the growth in commercial customers. The number of new industrial customers added per year is relatively small.

3. **Specific**

Commercial Fuels - Natural gas and oil prices are expected to increase over the forecast period. The projected annual growth rate 2010 to 2030, in nominal terms, is 1.2 percent for the price of electricity, 3.2 percent for the price of natural gas and 2.3 percent for the price of oil (residual fuel oils.)

Regarding availability of the conventional fuels, nothing on the horizon indicates any severe limitations in their supply, although world reserves of natural gas and oil are believed to be dwindling. There are unknown potential impacts from future changes in legislation or a change in the pricing or supply policy of oil producing countries that might affect fuel supply. However, these cannot be quantified within the forecast. The only non-utility information source relied upon is Moody's Economy.com.

Year End Residential Customers - In the following table, historical and projected total year-end residential customers for the entire Ohio service area are provided.

NUMBER OF YEAR-END RESIDENTIAL CUSTOMERS

2005	605,891
2006	610,648
2007	612,766
2008	610,603
2009	610,482
2010	608,670
2011	613,539
2012	619,082
2013	624,859
2014	630,331

2015	635,208
2016	639,625
2017	643,942
2018	648,159
2019	652,249
2020	656,273
2021	660,282
2022	664,231
2023	668,076
2024	671,871
2025	675,746
2026	679,715
2027	683,724
2028	687,834
2029	691,984
2030	696,054

Appliance Efficiencies - Trends in appliance efficiencies, saturations, and usage patterns have an impact on the projected use per residential customer. Overall, the forecast incorporates a projection of increasing saturation for many appliances including heat pumps, air conditioners, electric space heating equipment, electric water heaters, electric clothes dryers, dish washers, and freezers. In addition, the forecast embodies trends of increasing appliance efficiency consistent with standards established by the federal government.

D. FORECAST DOCUMENTATION

In the following sections, information on forecast related databases is provided for Duke Energy Ohio.

The first step in the forecasting process is the collection of relevant information and data. The database discussion is broken into three parts:

a) Economic Data,

b) Energy and Peak Data, and

c) Forecast Data.

1. Economic Data

The major groups of data in the economic forecast are employment, demographics, income, production, inflation and prices. National and local values for these concepts are available from Moody's Economy.com and company data.

Employment - Employment numbers are required on both a national and service area basis. Quarterly national and local employment series by industry are obtained from Moody's Economy.com. Employment series are available for manufacturing and non-manufacturing sectors.

Population - National and local values for total population and population by age-cohort groups are obtained from Moody's Economy.com.

Income - Local income data series are obtained from Moody's Economy.com. The data is available on a county level and summed to a service area level. This includes data for personal income; dividends, interest, and rent; transfer payments; wage and salary disbursements plus other labor income; personal contributions for social insurance; and non-farm proprietors' income.

Consumer Price Index - The local CPI is equivalent to the national CPI obtained from Moody's Economy.com.

Electricity and Natural Gas Prices - The average price of electricity and natural gas is available from Company financial reports. Data on marginal electricity price (including fuel cost) is collected for each customer class. This information is obtained from Company records and rate schedules.

2. Energy and Peak Models

The majority of data required to develop the electricity sales and peak forecasts is obtained from the Duke Energy Ohio service area economic data provided by Moody's Economy.com, from Duke Energy Ohio financial reports and research groups, and from national sources. With regard to the national sources of information, generally all national information is obtained from Moody's Economy.com. However, local weather data are obtained from the National Oceanic and Atmospheric Administration (NOAA).

The major groups of data that are used in developing the energy forecasts are: kilowatt-hour sales by customer class, number of customers, use-per-customer, electricity prices, natural gas prices, appliance saturations, and local weather data. The following are descriptions of the adjustments performed on various groups of data to develop the final data series actually used in regression analysis.

Kilowatt hour Sales and Revenue - Duke Energy Ohio collects sales and revenue data monthly by rate class. For forecast purposes this information is aggregated into the following categories: residential, commercial, industrial, OPA, and the other sales categories. In the industrial sector, sales and revenue for each manufacturing NAICS are collected. From the sales and revenue information, average electricity prices by sector can be calculated.

The other public authorities (OPA) sales category is analyzed in two parts: water pumping and OPA less water-pumping sales.

Number of Customers - The number of customers by class is obtained on a monthly basis from Company records.

Use Per Customer – Average use per customer is computed on a monthly basis by dividing residential sales by total customers.

Local Weather Data - Local climatologic data are provided by NOAA for the Cincinnati/Covington airport reporting station. Cooling degree days and heating degree days are calculated on a monthly basis using temperature data. The degree day series are required on a billing cycle basis for use in regression analysis.

Appliance Stock - To account for the impact of appliance saturations and federal efficiency standards, an appliance stock variable is created. This variable is composed of three parts: appliance efficiencies, appliance saturations, and appliance energy consumption values.

The appliance stock variable is calculated as follows:

(11) Appliance $Stock_t$=

$$SUM\ (K_i * SAT_{i,t} * EFF_{i,t}) \text{ for all } i$$

Where: t = time period

i = end-use appliance

K_i = fixed energy consumption value for appliance i,

$SAT_{i,t}$ = saturation of appliance i in period t, and

$EFF_{i,t}$ = efficiency of appliance i in period t.

The appliances included in the calculation of the Appliance Stock variable are: electric range, frost-free refrigerator, manual-defrost refrigerator, food freezer, dish washer, clothes washer, clothes dryer, water heater, microwave, color television, black and white television, room air conditioner, central air conditioner, electric resistance heat, and electric heat pump.

Appliance Saturation and Efficiency - In general, information on historical appliance saturations for all appliances is obtained from Company Appliance Saturation Surveys.

Data on historical appliance efficiency are obtained from the Association of Home Appliance Manufacturers (AHAM), Air-Conditioning & Refrigeration Institute (ARI), and the Gas Appliance Manufacturers Association. Information on average appliance life is obtained from Appliance Week.

The forecast of appliance saturations and efficiencies is obtained from data provided by ITRON Inc., a forecast consulting firm. They have developed Regional Statistically Adjusted End-use (SAE) Models, an end-use approach to electric forecasting that provides forward looking levels of appliance saturations and efficiencies.

Peak Weather Data - The weather conditions associated with the monthly peak load are collected from the hourly and daily data recorded by the National Oceanic and Atmospheric Administration. The weather variables which influence the summer peak are maximum temperature on the peak day and the day before, morning low temperature, and humidity on the peak day. The weather influence on the winter peak is measured by the low temperatures and the associated wind speed. The variables selected are dependent upon whether it is a morning or evening winter peak load.

An average of extreme weather conditions is used as the basis for the weather component in the preparation of the peak load forecast. Using historical data for the single worst summer weather occurrence and the single worst winter weather occurrence in each year, an average extreme weather condition can be computed.

3. Forecast Data

Projections of exogenous variables in Duke Energy Ohio's models are required in the following areas: national and local employment, income, industrial production, and population, as well as natural gas and electricity prices.

Employment -The forecast of employment by industry is provided by Moody's Economy.com.

Income -The forecast of income is provided by Moody's Economy.com.

Industrial Production - The forecast of industrial production is also provided by Moody's Economy.com.

Population - Duke Energy Ohio's population forecast is derived from data provided by Moody's Economy.com. Population projections for the service area are prepared by first collecting county-level population forecasts for the counties in the Company's service area and then summing.

Prices - The projected change in electricity and natural gas prices over the forecast interval is provided by the Company's Financial Planning and Analysis department and Moody's Economy.com.

4. Load Research and Market Research Efforts

Duke Energy Ohio is committed to the continued development and maintenance of a substantive class load database of typical customer electricity consumption patterns and the collection of primary market research data on customers.

Load Research – Complete load profile information, or 100% sample data, is maintained on commercial and industrial customers whose average annual demand is greater than 500 kW, served at primary distribution voltage or served at transmission voltage. Additionally, the Company continues to collect whole premise or building level electricity consumption patterns on representative samples of the various customer classes and rate groups whose annual demands are less than 500 kW.

Periodically, the Company monitors selected end-uses or systems associated with energy efficiency evaluations performed in conjunction with energy efficiency programs. These studies are performed as necessary and tend to be of a shorter duration.

Market Research - Primary research projects continue to be conducted as part of the on-going efforts to gain knowledge about the Company's customers. These projects include customer satisfaction studies, appliance saturation studies, end-use studies, studies to track competition (to monitor customer switching percentages in order to forecast future utility load), and related types of marketing research projects.

E. MODELS

Specific analytical techniques have been employed for development of the forecast models.

1. Specific Analytical Techniques

Regression Analysis - Ordinary least squares is the principle regression technique employed to estimate economic/behavioral relationships among the relevant variables.

This econometric technique provides a method to perform quantitative analysis of economic behavior.

Ordinary least-squares techniques were used to model electric sales. Based upon their relationship with the dependent variable, several independent variables were tested in the regression models. The final models were chosen based upon their statistical strength and logical consistency.

Logarithmic Transformations - The projection of economic relationships over time requires the use of techniques that can account for non-linear relationships. By transforming the dependent variable and independent variables into their "natural logarithm", a non-linear relationship can be transformed into a linear relationship for model estimation purposes.

Polynomial Distributed Lag Structure - One method of accounting for the lag between a change in one variable and its ultimate impact on another variable is through the use of polynomial distributed lags. This technique is also referred to as Almon lags. Polynomial Distributed Lag Structures derive their name from the fact that the lag weights follow a polynomial of specified degree. That is, the lag weights all lie on a line, parabola, or higher order polynomial as required.

This technique is employed in developing econometric models for most of the energy equations.

Serial Correlation - It is often the case in forecasting an economic time series that residual errors in one period are related to those in a previous period. This is known as serial correlation. By correcting for this serial correlation of the estimated residuals, forecast error is reduced and the estimated coefficients are more efficient. The Gauss-Newton technique is employed to correct for the existence of autocorrelation.

<u>**Qualitative Variables**</u> - In several equations, qualitative variables are employed. In estimating an econometric relation using time series data, it is quite often the case that "outliers" are present in the historic data. These unusual deviations in the data can be the result of problems such as errors in the reporting of data by particular companies and agencies, labor-management disputes, severe energy shortages or restrictions, and other perturbations that do not repeat with predictability. Therefore, in order to identify the true underlying economic relationship between the dependent variable and the other independent variables, qualitative variables are employed to account for the impact of the outliers.

2. Relationships Between The Specific Techniques

The manner in which specific methodologies for forecasting components of the total load are related is explained in the discussion of specific analytical techniques above.

3. Alternative Methodologies

The Company continues to use the current forecasting methodology as it has for the past several years. The Company considers the forecasting methods currently utilized to be adequate.

4. Changes In Methodology

There were no significant changes to the forecast methodology. The Company uses the latest historical data available and relies on recent economic data and forecasts from Economy.com.

5. Equations

Following is a display of all the relevant equations used in the forecast. Specifically, for each of the equations in the Electric Energy Forecast Model and Electric Peak Load Model the following information is included:

Equation Estimation Results - The results of the estimation of each of the stochastic equations in the models is provided. Included are the estimated coefficients and the results of appropriate statistical tests. Those equations which required a correction for serial correlation are so indicated.

The computer output for each variable lists the estimated coefficient, standard error, and the t statistic. Lagged variables are denoted with the \N symbol, "N" being the number of periods lagged.

The use of Polynomial Distributed Lags (PDL) is indicated by the expression:

PDL (Variable, Degree of Polynomial, Length of Lag, Restrictions). The restrictions may constrain the PDL such that the end values of the distributed lag are close to zero.

The computer output for each PDL variable lists the estimated lag weights and their associated standard errors. There is also a plot of the distributed lag. In addition to the individual lag weights, statistics are presented on the sum and average of the lag weights.

Mnemonic Definition - Following the equation estimation results is a definition of the mnemonics for each variable used in the equation.

Forecast Error - Following the equation mnemonics definition is the forecast error as measured by the mean of the forecast standard errors over the forecast period.

RELEVANT EQUATIONS USED IN FORECAST

Service Area Electric Customers – Residential

Dependent Variable: LOG(CUSRES_OH_KY)
Method: Least Squares
Date: 02/22/10 Time: 10:18
Sample: 1989M10 2009M12
Included observations: 243
Convergence achieved after 10 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
@MONTH=1	14.58843	2.078216	7.019689	0.0000
@MONTH=2	14.58910	2.078233	7.019953	0.0000
@MONTH=3	14.58905	2.078231	7.019937	0.0000
@MONTH=4	14.58747	2.078216	7.019226	0.0000
@MONTH=5	14.58475	2.078191	7.018001	0.0000
@MONTH=7	14.58117	2.078143	7.016441	0.0000
@MONTH=8	14.57984	2.078129	7.015849	0.0000
@MONTH=9	14.57937	2.078122	7.015647	0.0000
@MONTH=10	14.58122	2.078134	7.016497	0.0000
(@MONTH=6)+(@MONTH=11)	14.58284	2.078161	7.017184	0.0000
@MONTH=12	14.58619	2.078186	7.018716	0.0000
D_1994M05	-0.005462	0.001101	-4.961302	0.0000
D_2001M02	0.028679	0.001420	20.19249	0.0000
D_2001M03	0.008928	0.001792	4.983318	0.0000
D_2001M04	0.007440	0.001899	3.917847	0.0001
D_2001M05	0.028301	0.001788	15.82501	0.0000
D_2001M06	0.015420	0.001406	10.96780	0.0000
D_2003M12	-0.004899	0.001266	-3.868297	0.0001
D_2004M01	0.003142	0.001269	2.475721	0.0141
D_2005M02	-0.003286	0.001101	-2.984363	0.0032
D_2006M02	-0.002576	0.001101	-2.339372	0.0202
D_2007M04	-0.002632	0.001100	-2.393759	0.0175
D_2009M05	-0.005885	0.001101	-5.345608	0.0000
PDL01	0.006876	0.002626	2.617864	0.0095
AR(1)	0.999192	0.001773	563.5811	0.0000

R-squared	0.999545	Mean dependent var	13.41617
Adjusted R-squared	0.999495	S.D. dependent var	0.067260
S.E. of regression	0.001512	Akaike info criterion	-10.05400
Sum squared resid	0.000498	Schwarz criterion	-9.694632
Log likelihood	1246.561	Durbin-Watson stat	1.851842

Inverted AR Roots 1.00

Lag Distribution of LOG(YP_OH_KY/N_OH_KY/CPI)	i	Coefficient	Std. Error	t-Statistic
. * |	0	0.00625	0.00239	2.61786
. * |	1	0.01125	0.00430	2.61786
. * |	2	0.01500	0.00573	2.61786
. * |	3	0.01750	0.00669	2.61786
. *|	4	0.01875	0.00716	2.61786
. *|	5	0.01875	0.00716	2.61786
. * |	6	0.01750	0.00669	2.61786
. * |	7	0.01500	0.00573	2.61786
. * |	8	0.01125	0.00430	2.61786
. * |	9	0.00625	0.00239	2.61786
	Sum of Lags	0.13752	0.05253	2.61786

KWH USE PER CUSTOMER – RESIDENTIAL

Dependent Variable: LOG(KWHRES_OH_KY/CUSRES_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:48
Sample: 1998M01 2009M12
Included observations: 144
Convergence achieved after 12 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.160119	1.093956	-0.146367	0.8839
LOG(APPLSTK_EFF_OH_KY*(YP_OH_KY/N_OH_KY/CPI))	0.897731	0.144727	6.202938	0.0000
(D_DJF)*(SAT_EH_EFF)*HDDB_OH_KY_59_0_500	0.003431	0.000152	22.51533	0.0000
(1-D_DJF)*(SAT_EH_EFF)*HDDB_OH_KY_59_0_500	0.002969	0.000181	16.41659	0.0000
(D_DJF)*(SAT_EH_EFF)*HDDB_OH_KY_59_500	0.002451	0.000118	20.77798	0.0000
(1-D_DJF)*(SAT_EH_EFF)*HDDB_OH_KY_59_500	0.003431	0.000284	12.07579	0.0000
(D_JJA)*(SAT_CAC_EFF)*CDDB_OH_KY_65_0_100	0.003714	0.000357	10.40497	0.0000
(1-D_JJA)*(SAT_CAC_EFF)*CDDB_OH_KY_65_0_100	0.005116	0.000274	18.67626	0.0000
(D_JJA)*(SAT_CAC_EFF)*CDDB_OH_KY_65_100	0.000852	0.000261	3.261027	0.0015
(1-D_JJA)*(SAT_CAC_EFF)*CDDB_OH_KY_65_100	0.000760	0.000326	2.334327	0.0213
(D_JJA+(@MONTH=5)+(@MONTH=9))*(SAT_RAC_EFF)*CDDB_OH_KY_65	0.004055	0.000419	9.683018	0.0000
@MONTH=1	0.111359	0.006921	16.09093	0.0000
@MONTH=5	-0.051948	0.010212	-5.087034	0.0000
@MONTH=7	0.076247	0.010965	6.953771	0.0000
@MONTH=8	0.065517	0.013748	4.765710	0.0000
@MONTH=12	0.070917	0.009012	7.869465	0.0000
D_2001M04	-0.048033	0.021059	-2.280857	0.0244
D_2001M05	-0.104211	0.022346	-4.663533	0.0000
D_2002M05+D_2004M05	-0.061481	0.014719	-4.177022	0.0001
D_2005M01	0.076932	0.019007	4.047574	0.0001
D_2007M05	-0.090166	0.020580	-4.381246	0.0000
D_2007M10	0.085213	0.020604	4.135761	0.0001
D_2008M12	0.043229	0.021359	2.023938	0.0453
D_2008M10	-0.061577	0.019532	-3.152603	0.0021
D_2009M01+D_2009M02	0.040794	0.019807	2.059575	0.0417
D_2009M05	-0.045689	0.019533	-2.339124	0.0210
PDL01	-0.025417	0.011680	-2.176050	0.0316
AR(1)	0.566529	0.079190	7.154043	0.0000

R-squared	0.991577	Mean dependent var	6.884401
Adjusted R-squared	0.989616	S.D. dependent var	0.203052
S.E. of regression	0.020691	Akaike info criterion	-4.745563
Sum squared resid	0.049662	Schwarz criterion	-4.168100
Log likelihood	369.6806	F-statistic	505.7634
Durbin-Watson stat	1.886307	Prob(F-statistic)	0.000000

Inverted AR Roots	.57

Lag Distribution of LOG(APPLSTK_EFF_OH_KY*(MP_RES_OH_KY/CPI))	i	Coefficient	Std. Error	t-Statistic
* . |	0	-0.03389	0.01557	-2.17605
* . |	1	-0.02542	0.01168	-2.17605
* . |	2	-0.01694	0.00779	-2.17605
* . |	3	-0.00847	0.00389	-2.17605
	Sum of Lags	-0.08472	0.03893	-2.17605

KWH SALES – COMMERCIAL

Dependent Variable: LOG(KWHCOM_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:47
Sample: 1986M01 2009M12
Included observations: 288
Convergence achieved after 21 iterations
Backcast: 1985M12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.20250	0.789083	12.92957	0.0000
LOG(ECOM_OH_KY)	1.452768	0.120583	12.04789	0.0000
LOG(DS_KWH_COM_OH_KY(-1)/CPI(-1))	-0.040173	0.018815	-2.135180	0.0337
(@MONTH=11)*HDDB_OH_KY_59	7.20E-05	2.64E-05	2.729863	0.0068
(@MONTH=12)*HDDB_OH_KY_59	0.000186	1.23E-05	15.08407	0.0000
(@MONTH=1)*HDDB_OH_KY_59	0.000193	8.78E-06	22.00401	0.0000
(@MONTH=2)*HDDB_OH_KY_59	0.000128	9.34E-06	13.70607	0.0000
(@MONTH=3)*HDDB_OH_KY_59	0.000107	1.19E-05	9.004544	0.0000
(@MONTH=4)*HDDB_OH_KY_59	8.02E-05	2.17E-05	3.689445	0.0003
(@MONTH=5)*CDDB_OH_KY_65	0.001027	0.000170	6.056236	0.0000
(@MONTH=6)*CDDB_OH_KY_65_0_100	0.001354	9.00E-05	15.03865	0.0000
(@MONTH=6)*CDDB_OH_KY_65_100	0.000714	9.34E-05	7.645193	0.0000
(@MONTH=7)*CDDB_OH_KY_65_0_100	0.001850	0.000175	10.59468	0.0000
(@MONTH=7)*CDDB_OH_KY_65_100	0.000476	8.51E-05	5.596115	0.0000
(@MONTH=8)*CDDB_OH_KY_65_0_100	0.001479	0.000133	11.10303	0.0000
(@MONTH=8)*CDDB_OH_KY_65_100	0.000595	5.52E-05	10.77004	0.0000
(@MONTH=9)*CDDB_OH_KY_65_0_100	0.001773	0.000109	16.31847	0.0000
(@MONTH=9)*CDDB_OH_KY_65_100	0.000449	6.37E-05	7.049509	0.0000
(@MONTH=10)*CDDB_OH_KY_65	0.000734	9.75E-05	7.526006	0.0000
@MONTH=10	0.027048	0.009853	2.745127	0.0065
D_1991M04	0.096723	0.019599	4.935175	0.0000
D_1993M09	-0.095367	0.019913	-4.789189	0.0000
D_1993M10+D_2004M12+D_2007M04	0.054683	0.011550	4.734447	0.0000
D_1995M04	0.062271	0.019891	3.130706	0.0019
D_1995M05	-0.078791	0.020069	-3.926031	0.0001
D_2000M01+D_2000M07	-0.061741	0.014066	-4.389441	0.0000
D_2000M10	0.088056	0.019626	4.486753	0.0000
D_2002M04	0.044250	0.019742	2.241379	0.0259
D_1993M11+D_2002M08+D_2004M11+D_2004M03+D_2005M02+D_2005M08	-0.049402	0.008523	-5.796417	0.0000
D_1991M11	0.062904	0.019712	3.191109	0.0016
D_1998M05	0.056548	0.019551	2.892296	0.0042
D_2005M03+D_1999M02	-0.034092	0.013834	-2.464402	0.0144
D_2008M12	0.045406	0.019942	2.276871	0.0236
AR(1)	0.958781	0.021721	44.14125	0.0000
MA(1)	-0.582901	0.062511	-9.324853	0.0000

R-squared	0.991691	Mean dependent var	20.04565
Adjusted R-squared	0.990574	S.D. dependent var	0.216657
S.E. of regression	0.021034	Akaike info criterion	-4.771830
Sum squared resid	0.111939	Schwarz criterion	-4.326678
Log likelihood	722.1435	F-statistic	888.1058
Durbin-Watson stat	1.736074	Prob(F-statistic)	0.000000

Inverted AR Roots	.96
Inverted MA Roots	.58

MWH SALES – INDUSTRIAL – FOOD, BEVERAGE AND TOBACCO

Dependent Variable: LOG(MWHN311_312_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:50
Sample (adjusted): 1977Q4 2009Q4
Included observations: 129 after adjustments
Convergence achieved after 14 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
@QUARTER=1	10.99144	0.338067	32.51261	0.0000
@QUARTER=2	10.91696	0.335354	32.55356	0.0000
(@QUARTER=3)+(@QUARTER=4)	10.99079	0.335374	32.77174	0.0000
CDDB_OH_KY_65	9.50E-05	2.51E-05	3.788483	0.0002
HDDB_OH_KY_59	-5.81E-05	1.84E-05	-3.151539	0.0021
D_1976Q1_1989Q2	-0.135596	0.039074	-3.470266	0.0007
D_1965Q1_1990Q4	-0.269857	0.037723	-7.153688	0.0000
D_1991Q1	-0.166486	0.041623	-3.999885	0.0001
D_2000Q4	0.111023	0.037784	2.938385	0.0040
D_2004Q2	0.129923	0.037484	3.466069	0.0007
D_2007Q2	0.084322	0.037200	2.266702	0.0253
D_2007Q4	0.121505	0.037192	3.266967	0.0014
D_2009Q1	0.172151	0.037630	4.574860	0.0000
PDL01	0.136189	0.050654	2.688610	0.0083
PDL02	-0.483359	0.185857	-2.600705	0.0106
PDL03	-0.055107	0.026793	-2.056759	0.0420
AR(1)	0.585833	0.085280	6.869499	0.0000

R-squared	0.980981	Mean dependent var	11.28661
Adjusted R-squared	0.978264	S.D. dependent var	0.286661
S.E. of regression	0.042263	Akaike info criterion	-3.367564
Sum squared resid	0.200049	Schwarz criterion	-2.990689
Log likelihood	234.2079	Durbin-Watson stat	2.020299

Inverted AR Roots .59

Lag Distribution of LOG(JQINDN311_312_OH_KY)	i	Coefficient	Std. Error	t-Statistic
. . *|	0	0.20428	0.07598	2.68861
. * |	1	0.13619	0.05065	2.68861
. * |	2	0.06809	0.02533	2.68861
Sum of Lags		0.40857	0.15196	2.68861

Lag Distribution of LOG(DS_KW_IND_OH_KY)/CPI	i	Coefficient	Std. Error	t-Statistic
* .|	0	-0.44883	0.17258	-2.60070
* .|	1	-0.82862	0.31861	-2.60070
* .|	2	-1.13935	0.43809	-2.60070
* .|	3	-1.38103	0.53102	-2.60070
* .|	4	-1.55365	0.59740	-2.60070
* .|	5	-1.65723	0.63722	-2.60070
* .|	6	-1.69176	0.65050	-2.60070
* .|	7	-1.65723	0.63722	-2.60070
* .|	8	-1.55365	0.59740	-2.60070
* .|	9	-1.38103	0.53102	-2.60070
* .|	10	-1.13935	0.43809	-2.60070
* .|	11	-0.82862	0.31861	-2.60070
* .|	12	-0.44883	0.17258	-2.60070
Sum of Lags		-15.7092	6.04035	-2.60070

Lag Distribution of LOG(DS_KWH_IND_OH_KY/CPI)	i	Coefficient	Std. Error	t-Statistic
* .|	0	-0.05511	0.02679	-2.05676
* .|	1	-0.02755	0.01340	-2.05676
Sum of Lags		-0.08266	0.04019	-2.05676

MWH SALES – INDUSTRIAL – PAPER, PLASTIC AND RUBBER

Dependent Variable: LOG(MWHN322_326_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:51
Sample: 1978Q1 2009Q4
Included observations: 128
Convergence achieved after 10 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
@QUARTER=1	10.47560	0.489789	21.38799	0.0000
@QUARTER=2	10.52590	0.490017	21.48070	0.0000
@QUARTER=3	10.54469	0.489865	21.52568	0.0000
@QUARTER=4	10.51457	0.489785	21.46771	0.0000
D_1992Q1+D_1993Q1+D_2006Q1	0.045880	0.013624	3.367471	0.0010
D_2001Q2	-0.120663	0.026298	-4.588339	0.0000
D_2003Q4	-0.123810	0.022632	-5.470431	0.0000
D_1996Q3+D_1988Q4+D_1978Q1	-0.062875	0.012944	-4.857408	0.0000
D_2000Q3+D_2005Q1	0.108910	0.016040	6.790013	0.0000
D_1999Q1_2001Q2	-0.133608	0.026094	-5.120199	0.0000
D_1980Q2+D_2003Q1+D_1989Q3+D_1979Q3	-0.041504	0.011313	-3.668733	0.0004
PDL01	0.289293	0.111377	2.597431	0.0106
PDL02	-0.061909	0.022973	-2.694820	0.0081
PDL03	-0.038417	0.017942	-2.141160	0.0344
AR(1)	0.936703	0.031810	29.44645	0.0000

R-squared	0.969763	Mean dependent var	11.96228
Adjusted R-squared	0.966017	S.D. dependent var	0.165338
S.E. of regression	0.030479	Akaike info criterion	-4.033802
Sum squared resid	0.104976	Schwarz criterion	-3.699579
Log likelihood	273.1633	Durbin-Watson stat	1.857079

Inverted AR Roots	.94

Lag Distribution of LOG(JQINDN322_326_OH_KY)	i	Coefficient	Std. Error	t-Statistic
. * |	0	0.28929	0.11138	2.59743
. * |	1	0.14465	0.05569	2.59743
	Sum of Lags	0.43394	0.16706	2.59743

Lag Distribution of LOG(DS_KW_IND_OH_KY/CPI)	i	Coefficient	Std. Error	t-Statistic
* . |	0	-0.09286	0.03446	-2.69482
* . |	1	-0.06191	0.02297	-2.69482
* . |	2	-0.03095	0.01149	-2.69482
	Sum of Lags	-0.18573	0.06892	-2.69482

Lag Distribution of LOG(DS_KWH_IND_OH_KY/CPI)	i	Coefficient	Std. Error	t-Statistic
* . |	0	-0.05763	0.02691	-2.14116
* . |	1	-0.03842	0.01794	-2.14116
* . |	2	-0.01921	0.00897	-2.14116
	Sum of Lags	-0.11525	0.05383	-2.14116

MWH SALES – INDUSTRIAL – CHEMICALS

Dependent Variable: LOG(MWHN325_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:51
Sample (adjusted): 1973Q4 2009Q4
Included observations: 145 after adjustments
Convergence achieved after 9 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CDDB_OH_KY_65	0.000155	3.73E-05	4.156072	0.0001
(1-D_1965Q1_1985Q4)*((@QUARTER=1)+(@QUARTER=4))*HDDB_OH_KY_59	1.42E-05	5.72E-06	2.488766	0.0141
D_1983Q3+D_1992Q3+D_1997Q3	0.059172	0.019352	3.057730	0.0027
D_2003Q4+D_2000Q4	0.084827	0.023366	3.630348	0.0004
D_1999Q4+D_2002Q4	-0.095132	0.023432	-4.059923	0.0001
D_1977Q1	-0.093260	0.033168	-2.811743	0.0057
D_2009Q3	0.111849	0.033572	3.331588	0.0011
@QUARTER=1	10.01416	0.749633	13.35876	0.0000
@QUARTER=2	10.04427	0.749402	13.40304	0.0000
@QUARTER=3	9.995057	0.750247	13.32235	0.0000
@QUARTER=4	10.05406	0.749360	13.41686	0.0000
PDL01	0.035496	0.010717	3.312083	0.0012
PDL02	-0.065042	0.021505	-3.024564	0.0030
AR(1)	0.876814	0.046473	18.86709	0.0000

R-squared	0.972024	Mean dependent var	12.29124
Adjusted R-squared	0.969248	S.D. dependent var	0.242265
S.E. of regression	0.042484	Akaike info criterion	-3.387804
Sum squared resid	0.236442	Schwarz criterion	-3.100395
Log likelihood	259.6158	Durbin-Watson stat	2.026167

Inverted AR Roots	.88

Lag Distribution of LOG(JQINDN325_OH_KY)	i	Coefficient	Std. Error	t-Statistic
. * |	0	0.03106	0.00938	3.31208
. * |	1	0.05324	0.01608	3.31208
. * |	2	0.06656	0.02009	3.31208
. *|	3	0.07099	0.02143	3.31208
. * |	4	0.06656	0.02009	3.31208
. * |	5	0.05324	0.01608	3.31208
. * |	6	0.03106	0.00938	3.31208
Sum of Lags		0.37271	0.11253	3.31208

Lag Distribution of LOG(TS_KWH_IND_OH_KY/CPI)	i	Coefficient	Std. Error	t-Statistic
* .|	0	-0.05203	0.01720	-3.02456
* .|	1	-0.07805	0.02581	-3.02456
* .|	2	-0.07805	0.02581	-3.02456
* .|	3	-0.05203	0.01720	-3.02456
Sum of Lags		-0.26017	0.08602	-3.02456

MWH SALES – INDUSTRIAL – PRIMARY METALS - BUTLER

Dependent Variable: LOG(MWHN331_BUTLER-BASE)
Method: Least Squares
Date: 03/01/10 Time: 09:55
Sample: 1976Q1 2009Q4
Included observations: 136
Convergence achieved after 14 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.484435	1.504336	4.310496	0.0000
LOG(JQINDN331_BUTLER)	0.820709	0.199343	4.117072	0.0001
LOG(TS_KW_IND_OH_KY(-5)/CPI(-5))	-0.467892	0.191855	-2.438775	0.0162
(1-D_1965Q1_1985Q4)*LOG(TS_KWH_IND_OH_KY/CPI)	-0.067541	0.017706	-3.814594	0.0002
LOG(TS_KWH_IND_OH_KY(-5)/APGIND_OH_KY(-5))	-0.343374	0.132493	-2.591635	0.0107
D_1965Q1_1995Q4	-0.968507	0.143152	-6.765580	0.0000
D_1976Q4	-0.366447	0.168713	-2.172011	0.0318
D_1979Q4+D_1980Q1	-0.716506	0.187472	-3.821929	0.0002
D_1980Q2	-0.616838	0.190726	-3.234158	0.0016
D_1985Q1	0.383093	0.168614	2.272014	0.0249
D_1986Q3	-0.578113	0.168531	-3.430314	0.0008
D_1990Q2	-0.561751	0.168679	-3.330290	0.0012
D_1991Q1	-0.409409	0.168559	-2.428881	0.0166
D_1991Q4	0.694418	0.170899	4.063335	0.0001
D_2009Q2	-1.952609	0.172042	-11.34963	0.0000
AR(1)	0.703965	0.071391	9.860759	0.0000

R-squared	0.927667	Mean dependent var	11.28639
Adjusted R-squared	0.918626	S.D. dependent var	0.720713
S.E. of regression	0.205592	Akaike info criterion	-0.215720
Sum squared resid	5.072146	Schwarz criterion	0.126946
Log likelihood	30.66894	F-statistic	102.6003
Durbin-Watson stat	1.953179	Prob(F-statistic)	0.000000

Inverted AR Roots	.70

MWH SALES – INDUSTRIAL – PRIMARY METALS – LESS BUTLER

Dependent Variable: LOG(MWHN331LARM_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:52
Sample: 1987Q1 2009Q4
Included observations: 92
Convergence achieved after 11 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.785634	1.293738	6.017937	0.0000
D_1999Q1	-0.420639	0.083965	-5.009672	0.0000
D_1988Q4	-0.199063	0.083864	-2.373641	0.0200
D_1996Q3+D_1997Q3	-0.251308	0.059452	-4.227045	0.0001
D_1998Q3_2001Q2	0.771287	0.066722	11.55980	0.0000
D_1965Q1_1998Q2	1.112706	0.055617	20.00664	0.0000
D_2002Q1	0.255912	0.084153	3.041049	0.0032
PDL01	0.101648	0.032332	3.143861	0.0023
PDL02	-0.078857	0.035282	-2.235011	0.0281
AR(1)	0.514801	0.098368	5.233403	0.0000

R-squared	0.967981	Mean dependent var	11.13353
Adjusted R-squared	0.964467	S.D. dependent var	0.497752
S.E. of regression	0.093828	Akaike info criterion	-1.792385
Sum squared resid	0.721903	Schwarz criterion	-1.518278
Log likelihood	92.44972	F-statistic	275.4404
Durbin-Watson stat	2.025476	Prob(F-statistic)	0.000000

Inverted AR Roots	.51

Lag Distribution of LOG(JQINDN331_CMSA)	i	Coefficient	Std. Error	t-Statistic
. * |	0	0.08132	0.02587	3.14386
. *|	1	0.12198	0.03880	3.14386
. *|	2	0.12198	0.03880	3.14386
. * |	3	0.08132	0.02587	3.14386
Sum of Lags		0.40659	0.12933	3.14386

Lag Distribution of LOG(TS_KWH_IND_OH_KY/CPI)	i	Coefficient	Std. Error	t-Statistic
* .|	0	-0.06309	0.02823	-2.23501
* .|	1	-0.09463	0.04234	-2.23501
* .|	2	-0.09463	0.04234	-2.23501
* .|	3	-0.06309	0.02823	-2.23501
Sum of Lags		-0.31543	0.14113	-2.23501

MWH SALES – INDUSTRIAL – FABRICATED METALS

Dependent Variable: LOG(MWHN332_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:52
Sample: 1974Q1 2009Q4
Included observations: 144
Convergence achieved after 12 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(JQINDN332_OH_KY)*D_1965Q1_1988Q3	0.464507	0.166506	2.789732	0.0061
LOG(JQINDN332_OH_KY)*(1-D_1965Q1_1988Q3)	0.495959	0.158676	3.125617	0.0022
LOG(DS_KW_IND_OH_KY(-1)/CPI(-1))	-0.126755	0.055492	-2.284214	0.0240
LOG(DS_KWH_IND_OH_KY/WPI0561)	-0.055346	0.021601	-2.562235	0.0115
D_1965Q1_2000Q2+D_2000Q3_2001Q2	0.164696	0.040308	4.085934	0.0001
D_1978Q1	-0.071313	0.032100	-2.221564	0.0280
D_2009Q2	-0.075550	0.034089	-2.216235	0.0284
@QUARTER=1	10.40668	0.251229	41.42309	0.0000
@QUARTER=2	10.41767	0.251506	41.42119	0.0000
@QUARTER=3	10.44644	0.251567	41.52546	0.0000
@QUARTER=4	10.40697	0.251379	41.39946	0.0000
AR(1)	0.880200	0.043375	20.29296	0.0000

R-squared	0.842062	Mean dependent var	11.27728
Adjusted R-squared	0.828901	S.D. dependent var	0.101773
S.E. of regression	0.042098	Akaike info criterion	-3.418000
Sum squared resid	0.233931	Schwarz criterion	-3.170516
Log likelihood	258.0960	Durbin-Watson stat	2.050762

Inverted AR Roots	.88

MWH SALES – INDUSTRIAL – MACHINERY

Dependent Variable: LOG(MWHN333_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:53
Sample: 1973Q4 2009Q4
Included observations: 145
Convergence achieved after 13 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.924550	0.640529	13.93309	0.0000
LOG(DS_KW_IND_OH_KY(-1)/CPI(-1))	-0.119897	0.056499	-2.122099	0.0357
CDDB_OH_KY_65*D_1965Q1_1986Q4	6.13E-05	1.79E-05	3.418275	0.0008
CDDB_OH_KY_65*(1-D_1965Q1_1986Q4)	0.000148	1.46E-05	10.07506	0.0000
HDDB_OH_KY_59	4.51E-05	1.17E-05	3.866798	0.0002
@QUARTER=1	-0.054214	0.017748	-3.054706	0.0027
D_1965Q1_2001Q2	0.159845	0.040451	3.951588	0.0001
D_1978Q1	-0.113671	0.035379	-3.212984	0.0017
D_1978Q2	-0.077206	0.034565	-2.233642	0.0272
D_2005Q2+D_2004Q4	-0.056609	0.019065	-2.969308	0.0036
D_2000Q2	-0.238683	0.027900	-8.555023	0.0000
D_2009Q1	-0.081215	0.027932	-2.907555	0.0043
PDL01	0.093842	0.025507	3.679117	0.0003
PDL02	-0.011086	0.004262	-2.600982	0.0104
AR(1)	1.054536	0.087974	11.98684	0.0000
AR(2)	-0.202773	0.088697	-2.286129	0.0239

R-squared	0.905745	Mean dependent var	10.81836
Adjusted R-squared	0.894785	S.D. dependent var	0.124386
S.E. of regression	0.040347	Akaike info criterion	-3.478847
Sum squared resid	0.209993	Schwarz criterion	-3.150379
Log likelihood	268.2164	F-statistic	82.64206
Durbin-Watson stat	1.926548	Prob(F-statistic)	0.000000

Inverted AR Roots	.80	.25

Lag Distribution of LOG(JQINDN333_OH_KY)	i	Coefficient	Std. Error	t-Statistic
. *|	0	0.14076	0.03826	3.67912
. * |	1	0.11730	0.03188	3.67912
. * |	2	0.09384	0.02551	3.67912
. * |	3	0.07038	0.01913	3.67912
. * |	4	0.04692	0.01275	3.67912
. * |	5	0.02346	0.00638	3.67912
	Sum of Lags	0.49267	0.13391	3.67912

Lag Distribution of LOG(DS_KWH_IND_OH_KY/APGIND_OH_KY)	i	Coefficient	Std. Error	t-Statistic
* .|	0	-0.00985	0.00379	-2.60098
* .|	1	-0.01724	0.00663	-2.60098
* .|	2	-0.02217	0.00852	-2.60098
* .|	3	-0.02464	0.00947	-2.60098
* .|	4	-0.02464	0.00947	-2.60098
* .|	5	-0.02217	0.00852	-2.60098
* .|	6	-0.01724	0.00663	-2.60098
* .|	7	-0.00985	0.00379	-2.60098
	Sum of Lags	-0.14781	0.05683	-2.60098

MWH SALES – INDUSTRIAL – COMPUTER AND ELECTRONICS

Dependent Variable: LOG(MWHN334_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:53
Sample: 1977Q1 2009Q4
Included observations: 132
Convergence achieved after 12 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(JQINDN334_OH_KY)	0.103672	0.021928	4.727940	0.0000
D_1980Q2+D_2002Q4	-0.061380	0.023773	-2.581943	0.0110
D_1986Q3	-0.073705	0.033655	-2.190030	0.0305
D_1988Q4+D_2000Q3+D_2000Q4	0.084534	0.023950	3.529593	0.0006
D_2002Q1	-0.093523	0.033613	-2.782338	0.0063
D_2009Q1	-0.102808	0.033934	-3.029613	0.0030
@QUARTER=1	9.009685	0.595921	15.11894	0.0000
@QUARTER=2	9.023146	0.596413	15.12903	0.0000
@QUARTER=3	9.095812	0.596276	15.25437	0.0000
@QUARTER=4	9.030445	0.595998	15.15181	0.0000
PDL01	-0.066958	0.022805	-2.936078	0.0040
AR(1)	0.841380	0.053027	15.86692	0.0000

R-squared	0.973132	Mean dependent var	10.73068
Adjusted R-squared	0.970669	S.D. dependent var	0.252282
S.E. of regression	0.043206	Akaike info criterion	-3.359152
Sum squared resid	0.224014	Schwarz criterion	-3.097079
Log likelihood	233.7041	Durbin-Watson stat	1.794576

Inverted AR Roots	.84

Lag Distribution of LOG(DS_KWH_IND_OH_KY/CPI)	i	Coefficient	Std. Error	t-Statistic
* . |	0	-0.10044	0.03421	-2.93608
* . |	1	-0.06696	0.02281	-2.93608
* . |	2	-0.03348	0.01140	-2.93608
Sum of Lags		-0.20087	0.06842	-2.93608

MWH SALES – INDUSTRIAL – ELEC. EQUIPMENT, APPLIANCE & COMPONENT

Dependent Variable: LOG(MWHN335_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:54
Sample: 1975Q3 2009Q4
Included observations: 138
Convergence achieved after 11 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D_1976Q1+D_1977Q2	0.069580	0.020185	3.447132	0.0008
D_1976Q4+D_1988Q3+D_2002Q4+D_1982Q4+D_2008Q2	-0.050425	0.012943	-3.896002	0.0002
D_2009Q1	-0.124418	0.034619	-3.593903	0.0005
D_2009Q2	-0.207778	0.033860	-6.136368	0.0000
@QUARTER=1	8.557458	0.617135	13.86642	0.0000
@QUARTER=2	8.572038	0.617306	13.88622	0.0000
@QUARTER=3	8.601234	0.617399	13.93141	0.0000
@QUARTER=4	8.576424	0.617268	13.89416	0.0000
PDL01	0.100214	0.025543	3.923310	0.0001
PDL02	-0.021911	0.010826	-2.023929	0.0451
PDL03	-0.029079	0.010113	-2.875462	0.0047
AR(1)	0.869125	0.040024	21.71497	0.0000

R-squared	0.970787	Mean dependent var	10.46031
Adjusted R-squared	0.968237	S.D. dependent var	0.210034
S.E. of regression	0.037433	Akaike info criterion	-3.649592
Sum squared resid	0.176554	Schwarz criterion	-3.395048
Log likelihood	263.8218	Durbin-Watson stat	1.980544

Inverted AR Roots	.87

Lag Distribution of LOG(JQINDN335_OH_KY)	i	Coefficient	Std. Error	t-Statistic
. *		0	0.16702	0.04257	3.92331
. *		1	0.13362	0.03406	3.92331
. *		2	0.10021	0.02554	3.92331
. *		3	0.06681	0.01703	3.92331
. *		4	0.03340	0.00851	3.92331
	Sum of Lags	0.50107	0.12772	3.92331

Lag Distribution of LOG(DS_KWH_IND_OH_KY/CPI)	i	Coefficient	Std. Error	t-Statistic
* .		0	-0.03834	0.01895	-2.02393
* .		1	-0.03287	0.01624	-2.02393
* .		2	-0.02739	0.01353	-2.02393
* .		3	-0.02191	0.01083	-2.02393
* .		4	-0.01643	0.00812	-2.02393
* .		5	-0.01096	0.00541	-2.02393
* .		6	-0.00548	0.00271	-2.02393
	Sum of Lags	-0.15337	0.07578	-2.02393

Lag Distribution of LOG(DS_KWH_IND_OH_KY/WPI0561)	i	Coefficient	Std. Error	t-Statistic
* .		0	-0.04362	0.01517	-2.87546
* .		1	-0.02908	0.01011	-2.87546
* .		2	-0.01454	0.00506	-2.87546
	Sum of Lags	-0.08724	0.03034	-2.87546

MWH SALES – INDUSTRIAL – MOTOR VEHICLES AND PARTS

Dependent Variable: LOG(MWHN3361_3362_3363_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:54
Sample: 1978Q1 2009Q4
Included observations: 128
Convergence achieved after 13 iterations
Backcast: 1977Q2 1977Q4

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.276906	0.618147	13.38987	0.0000
LOG(TS_KWH_IND_OH_KY(-6)/WPI0561(-6))	-0.098257	0.040479	-2.427358	0.0168
CDDB_OH_KY_65	0.000122	1.84E-05	6.636288	0.0000
@QUARTER=2	0.037927	0.012395	3.059979	0.0028
D_1999Q1	0.541812	0.067341	8.045754	0.0000
D_1965Q1_1980Q2	-0.167135	0.060887	-2.745007	0.0070
D_2000Q1	0.233041	0.067586	3.448095	0.0008
D_2004Q4	-0.291215	0.067060	-4.342620	0.0000
D_1965Q1_2005Q1	0.259784	0.057534	4.515330	0.0000
D_2008Q3	-0.151776	0.069783	-2.174969	0.0317
PDL01	0.095142	0.025075	3.794260	0.0002
PDL02	-0.136912	0.036573	-3.743512	0.0003
AR(1)	0.532645	0.084977	6.268102	0.0000
MA(3)	0.257896	0.097471	2.645868	0.0093

R-squared	0.863634	Mean dependent var	11.41699
Adjusted R-squared	0.848083	S.D. dependent var	0.198665
S.E. of regression	0.077433	Akaike info criterion	-2.175901
Sum squared resid	0.683521	Schwarz criterion	-1.863960
Log likelihood	153.2576	F-statistic	55.53721
Durbin-Watson stat	1.988767	Prob(F-statistic)	0.000000

Inverted AR Roots	.53		
Inverted MA Roots	.32+.55i	.32-.55i	-.64

Lag Distribution of LOG(JQINDN3361_62_63_OH_KY)	i	Coefficient	Std. Error	t-Statistic
. * |	0	0.12686	0.03343	3.79426
. * |	1	0.09514	0.02508	3.79426
. * |	2	0.06343	0.01672	3.79426
. * |	3	0.03171	0.00836	3.79426
	Sum of Lags	0.31714	0.08358	3.79426

Lag Distribution of LOG(TS_KWH_IND_OH_KY/APGIND_OH_KY)	i	Coefficient	Std. Error	t-Statistic
* . |	0	-0.13691	0.03657	-3.74351
* . |	1	-0.06846	0.01829	-3.74351
	Sum of Lags	-0.20537	0.05486	-3.74351

MWH SALES – INDUSTRIAL – AEROSPACE PRODUCTS AND PARTS

Dependent Variable: LOG(MWHN3364_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:54
Sample: 1975Q1 2009Q4
Included observations: 137
Convergence achieved after 27 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CDDB_OH_KY_65	0.000108	4.13E-05	2.622576	0.0099
D_1976Q3	-0.124269	0.037403	-3.322399	0.0012
D_1978Q1+D_2006Q4	-0.097376	0.026174	-3.720256	0.0003
D_1992Q1	-0.249084	0.036805	-6.767732	0.0000
D_2000Q3	-0.308499	0.036904	-8.359459	0.0000
D_2001Q2	0.170828	0.036396	4.693606	0.0000
D_2003Q4	-0.326287	0.038154	-8.551867	0.0000
D_1991Q4	0.180807	0.036913	4.898147	0.0000
D_2004Q1	0.234192	0.037414	6.259387	0.0000
D_2007Q1	-0.103951	0.040387	-2.573888	0.0113
D_2008Q2	0.199231	0.037453	5.319483	0.0000
@QUARTER=1	8.831991	0.688382	12.83008	0.0000
@QUARTER=2	8.851741	0.688612	12.85447	0.0000
@QUARTER=3	8.845238	0.688141	12.85382	0.0000
@QUARTER=4	8.826068	0.688854	12.81268	0.0000
PDL01	0.038621	0.017684	2.183947	0.0310
PDL02	-0.051066	0.020526	-2.487823	0.0143
PDL03	-0.049801	0.023042	-2.161304	0.0327
AR(1)	0.454090	0.084731	5.359198	0.0000
AR(2)	0.513790	0.085761	5.990930	0.0000

R-squared	0.930204	Mean dependent var	11.12954
Adjusted R-squared	0.918869	S.D. dependent var	0.151380
S.E. of regression	0.043118	Akaike info criterion	-3.315577
Sum squared resid	0.217525	Schwarz criterion	-2.889302
Log likelihood	247.1170	Durbin-Watson stat	2.030521

Inverted AR Roots	.98	-.52

Lag Distribution of LOG(JQINDN3364_OH_KY)	i	Coefficient	Std. Error	t-Statistic
. * |	0	0.03218	0.01474	2.18395
. * |	1	0.05150	0.02358	2.18395
. *|	2	0.05793	0.02653	2.18395
. * |	3	0.05150	0.02358	2.18395
. * |	4	0.03218	0.01474	2.18395
	Sum of Lags	0.22529	0.10316	2.18395

Lag Distribution of LOG(TS_KWH_IND_OH_KY/CPI)	i	Coefficient	Std. Error	t-Statistic
* .|	0	-0.06809	0.02737	-2.48782
* .|	1	-0.05107	0.02053	-2.48782
* .|	2	-0.03404	0.01368	-2.48782
* .|	3	-0.01702	0.00684	-2.48782
	Sum of Lags	-0.17022	0.06842	-2.48782

Lag Distribution of LOG(TS_KWH_IND_OH_KY(-5)/APGIND_OH_KY(-5))	i	Coefficient	Std. Error	t-Statistic
* .|	0	-0.04980	0.02304	-2.16130
* .|	1	-0.02490	0.01152	-2.16130
	Sum of Lags	-0.07470	0.03456	-2.16130

MWH SALES – INDUSTRIAL – MISCELLANEOUS

Dependent Variable: LOG(MWHNAOI_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:55
Sample: 1978Q1 2009Q4
Included observations: 128
Convergence achieved after 8 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(JQINDNAOI_OH_KY)	0.550485	0.237162	2.321135	0.0221
CDDB_OH_KY_65	0.000146	3.44E-05	4.232864	0.0000
@QUARTER=1	11.42288	0.606596	18.83110	0.0000
@QUARTER=2	11.42603	0.606941	18.82559	0.0000
@QUARTER=3	11.43871	0.607706	18.82277	0.0000
@QUARTER=4	11.43744	0.607091	18.83976	0.0000
D_1965Q1_2001Q3	0.241725	0.040747	5.932274	0.0000
D_2003Q4	-0.069382	0.028922	-2.398918	0.0181
D_2004Q4	0.129828	0.033797	3.841445	0.0002
D_2005Q1	-0.158780	0.033560	-4.731207	0.0000
D_2001Q2+D_2005Q4	-0.074246	0.020460	-3.628854	0.0004
D_2008Q3	0.129324	0.035279	3.665787	0.0004
D_2008Q4	0.107763	0.034568	3.117422	0.0023
D_2000Q2	-0.129800	0.033480	-3.876937	0.0002
D_2000Q3	-0.074474	0.033901	-2.196810	0.0301
PDL01	-0.083721	0.040454	-2.069554	0.0408
AR(1)	0.980247	0.014179	69.13346	0.0000

R-squared	0.984403	Mean dependent var	12.42024
Adjusted R-squared	0.982155	S.D. dependent var	0.297130
S.E. of regression	0.039692	Akaike info criterion	-3.492210
Sum squared resid	0.174875	Schwarz criterion	-3.113425
Log likelihood	240.5014	Durbin-Watson stat	1.912650

Inverted AR Roots	.98

Lag Distribution of LOG(DS_KWH_IND_OH_KY(-4)/CPI(-4))	i	Coefficient	Std. Error	t-Statistic
* .|	0	-0.08372	0.04045	-2.06955
* .|	1	-0.04186	0.02023	-2.06955
	Sum of Lags	-0.12558	0.06068	-2.06955

KWH SALES – OTHER PUBLIC AUTHORITIES – WATER PUMPING

Dependent Variable: LOG(KWHOPAWP_OH_KY)
Method: Least Squares
Date: 03/01/10 Time: 09:49
Sample: 1976M01 2009M12
Included observations: 408

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.799541	0.673817	10.09108	0.0000
D_1965M01_2001M12*LOG(CUSRES_OH_KY)	0.705017	0.048791	14.44986	0.0000
(1-D_1965M01_2001M12)*LOG(CUSRES_OH_KY)	0.664885	0.047975	13.85910	0.0000
LOG(DS_KW_OPA_OH_KY/CPI)	-0.047508	0.017169	-2.767092	0.0059
((@MONTH=5)+(@MONTH=6)+(@MONTH=7)+(@MONTH=8))*(PRECIP_OH_KY+PRECIP_OH_KY(-1))	-0.003723	0.001133	-3.286811	0.0011
((@MONTH=4)+(@MONTH=9)+(@MONTH=10)+(@MONTH=11))*(PRECIP_OH_KY+PRECIP_OH_KY(-1))	-0.003101	0.001088	-2.851317	0.0046
((@MONTH=6)+(@MONTH=7))*CDD_OH_KY_65	0.000703	4.26E-05	16.50613	0.0000
(@MONTH=8)*CDD_OH_KY_65	0.000787	4.80E-05	16.39056	0.0000
(1-((@MONTH=6)+(@MONTH=7)+(@MONTH=8)))*CDD_OH_KY_65	0.001201	8.44E-05	14.24274	0.0000
D_1988M05_1988M08	0.160612	0.033378	4.811904	0.0000
D_1982M06	0.832193	0.065796	12.64815	0.0000
D_1991M12+D_1992M06+D_1992M07	-0.209483	0.038130	-5.493974	0.0000
D_1992M03+D_1993M07	-0.205431	0.046830	-4.386726	0.0000
D_1997M10	0.255022	0.065650	3.884538	0.0001
D_1998M06+D_1998M08	-0.258645	0.047330	-5.464675	0.0000
D_1998M10	-0.564656	0.065663	-8.599234	0.0000
D_1999M10	0.223622	0.065772	3.399966	0.0007
D_2000M01	-0.812884	0.065891	-12.33684	0.0000
D_2000M06	0.341751	0.066178	5.164144	0.0000
D_2000M05	-0.696291	0.066504	-10.46989	0.0000
D_2000M07	-1.286033	0.066170	-19.43537	0.0000
D_2000M08_2001M12	-0.449507	0.021353	-21.05079	0.0000
D_2000M11	-0.248418	0.067905	-3.658311	0.0003
D_2000M12	-0.288264	0.067993	-4.239603	0.0000
D_2001M07	-0.929625	0.068604	-13.55060	0.0000
D_2001M09_2002M06	-0.184492	0.023329	-7.908269	0.0000
D_2002M07_2003M01	0.325518	0.031727	10.26010	0.0000
D_2002M10	-0.446044	0.071951	-6.199239	0.0000
D_2003M01	0.474567	0.071797	6.609868	0.0000
D_2003M12	-0.262374	0.066323	-3.955994	0.0001
D_2004M01	0.381923	0.066319	5.758901	0.0000
D_2004M03	0.791156	0.066318	11.92977	0.0000
D_2006M09	-0.466264	0.067221	-6.936322	0.0000
D_2006M10	0.363220	0.067638	5.370063	0.0000
D_1965M01_2005M12	0.098859	0.019005	5.201696	0.0000
D_1965M01_2007M09	0.137266	0.019904	6.896295	0.0000
D_2008M11	-0.159336	0.066499	-2.396051	0.0171

R-squared	0.947136	Mean dependent var	16.45024
Adjusted R-squared	0.942006	S.D. dependent var	0.270716
S.E. of regression	0.065194	Akaike info criterion	-2.536601
Sum squared resid	1.576830	Schwarz criterion	-2.172834
Log likelihood	554.4666	F-statistic	184.6373
Durbin-Watson stat	1.879502	Prob(F-statistic)	0.000000

KWH SALES – OTHER PUBLIC AUTHORITIES – LESS WATER PUMPING

Dependent Variable: LOG(KWHOPALWP_OH_KY)
Method: Least Squares
Date: 03/04/10 Time: 10:56
Sample: 1978M01 2009M12
Included observations: 384
Convergence achieved after 11 iterations
Backcast: 1977M01 1977M12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.326034	0.465310	20.04262	0.0000
LOG(DS_KWH_OPA_OH_KY/CPI)	-0.150672	0.035477	-4.247045	0.0000
LOG(DS_KWH_OPA_OH_KY(-11)/APGOPA_OH_KY(-11))	-0.078112	0.021782	-3.586080	0.0004
CDDB_OH_KY_65*D_1976M01_1984M12	0.000305	9.22E-05	3.306630	0.0010
CDDB_OH_KY_65*(1-D_1976M01_1984M12)	0.000590	5.22E-05	11.31688	0.0000
HDDB_OH_KY_59*D_1976M01_1984M12	0.000112	2.90E-05	3.868701	0.0001
HDDB_OH_KY_59*(1-D_1976M01_1984M12)	0.000100	2.01E-05	4.971366	0.0000
@MONTH=6	0.033430	0.010855	3.079645	0.0022
@MONTH=11	-0.035132	0.010998	-3.194495	0.0015
D_1993M11	-0.175674	0.043763	-4.014206	0.0001
D_1994M01	-0.128589	0.048962	-2.626332	0.0090
D_1994M02	0.211284	0.048494	4.356885	0.0000
D_1995M08	-0.222826	0.044160	-5.045850	0.0000
D_1996M09	-0.176397	0.044410	-3.972020	0.0001
D_1999M06	-0.221383	0.044123	-5.017400	0.0000
D_1999M10	0.210863	0.049950	4.221504	0.0000
D_1999M11	-0.147833	0.056129	-2.633796	0.0088
D_1999M12	0.212065	0.051715	4.100672	0.0001
D_2000M04	-0.489981	0.045520	-10.76405	0.0000
D_2000M07	-0.200370	0.044919	-4.460715	0.0000
D_2000M12	0.288667	0.051330	5.623773	0.0000
D_2001M01	-0.230823	0.049736	-4.641005	0.0000
D_2001M04	-0.288778	0.045553	-6.339324	0.0000
D_1999M08+D_2001M08	0.097873	0.030232	3.237371	0.0013
D_2002M12	-0.201730	0.043523	-4.635069	0.0000
D_2003M02	-0.189563	0.043693	-4.338494	0.0000
D_2003M05	0.204101	0.048425	4.214767	0.0000
D_2003M06	0.200766	0.049538	4.052766	0.0001
D_2004M07	-0.148820	0.043902	-3.389836	0.0008
D_2004M09	0.225249	0.048327	4.660892	0.0000
D_2004M10	0.133893	0.048304	2.771867	0.0059
D_2009M09	0.123567	0.045545	2.713092	0.0070
PDL01	0.493321	0.046211	10.67541	0.0000
AR(1)	0.604604	0.045200	13.37611	0.0000
MA(12)	0.312347	0.054762	5.703677	0.0000

R-squared	0.959108	Mean dependent var	18.50513
Adjusted R-squared	0.955124	S.D. dependent var	0.250175
S.E. of regression	0.052997	Akaike info criterion	-2.950441
Sum squared resid	0.980231	Schwarz criterion	-2.590356
Log likelihood	601.4846	F-statistic	240.7534
Durbin-Watson stat	2.224068	Prob(F-statistic)	0.000000

Inverted AR Roots	.60			
Inverted MA Roots	.88-.23i	.88+.23i	.64-.64i	.64+.64i
	.23-.88i	.23+.88i	-.23+.88i	-.23-.88i
	-.64-.64i	-.64-.64i	-.88-.23i	-.88+.23i

Lag Distribution of LOG(E90X_OH_KY)	i	Coefficient	Std. Error	t-Statistic
. *|	0	0.73998	0.06932	10.6754
. * |	1	0.49332	0.04621	10.6754
. * |	2	0.24666	0.02311	10.6754
	Sum of Lags	1.47996	0.13863	10.6754

KWH SALES – STREET LIGHT

Dependent Variable: LOG(KWHSL_OH_KY)
Method: Least Squares
Date: 02/22/10 Time: 10:20
Sample: 1975M01 2009M12
Included observations: 420
Convergence achieved after 14 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.844609	0.912383	7.501901	0.0000
LOG(N_OH_KY)	1.168040	0.103906	11.24129	0.0000
D_1965M01_2002M12*@MONTH=1	0.132215	0.005570	23.73551	0.0000
D_1965M01_2002M12*@MONTH=2	-0.015958	0.005307	-3.006946	0.0028
D_1965M01_2002M12*@MONTH=4	-0.125359	0.005151	-24.33517	0.0000
D_1965M01_2002M12*@MONTH=5	-0.182994	0.005632	-32.49291	0.0000
D_1965M01_2002M12*@MONTH=6	-0.273780	0.006377	-42.92930	0.0000
D_1965M01_2002M12*@MONTH=7	-0.226069	0.006591	-34.30105	0.0000
D_1965M01_2002M12*@MONTH=8	-0.142760	0.006661	-21.43210	0.0000
D_1965M01_2002M12*@MONTH=9	-0.075370	0.006702	-11.24577	0.0000
D_1965M01_2002M12*@MONTH=10	0.029384	0.006637	4.427282	0.0000
D_1965M01_2002M12*@MONTH=11	0.084070	0.006478	12.97829	0.0000
D_1965M01_2002M12*@MONTH=12	0.148240	0.006124	24.20773	0.0000
D_1980M02	-0.162543	0.021380	-7.602473	0.0000
D_1991M06	-0.366416	0.023009	-15.92457	0.0000
D_1999M06	0.527559	0.021371	24.68527	0.0000
D_1999M11	-0.215284	0.021363	-10.07733	0.0000
D_2001M02	-0.754842	0.022289	-33.86571	0.0000
D_2001M03	0.415677	0.022588	18.40284	0.0000
D_2001M05	-0.315874	0.022040	-14.33212	0.0000
D_2001M07+D_2002M07	0.193412	0.015986	12.09868	0.0000
D_2002M06	-0.145848	0.021775	-6.697929	0.0000
D_1991M03	-0.140898	0.021526	-6.545478	0.0000
D_2007M02	-0.134584	0.021031	-6.399201	0.0000
D_2007M05	-0.105156	0.022196	-4.737561	0.0000
D_2007M06	0.056068	0.021789	2.573195	0.0104
D_2002M02	0.104776	0.021637	4.842547	0.0000
D_2006M02	0.084111	0.021080	3.990107	0.0001
D_1965M01_2007M09	0.049651	0.014302	3.471605	0.0006
PDL01	-0.115514	0.057677	-2.002772	0.0459
AR(1)	0.449125	0.055380	8.109935	0.0000
AR(2)	0.238951	0.053447	4.470826	0.0000

R-squared	0.980290	Mean dependent var	15.93340
Adjusted R-squared	0.978715	S.D. dependent var	0.161105
S.E. of regression	0.023504	Akaike info criterion	-4.590150
Sum squared resid	0.214348	Schwarz criterion	-4.282321
Log likelihood	995.9314	F-statistic	622.4986
Durbin-Watson stat	2.050687	Prob(F-statistic)	0.000000

Inverted AR Roots	.76	-.31

Lag Distribution of LOG(SAT_SL_OH_KY)	i	Coefficient	Std. Error	t-Statistic
* . |	0	-0.15402	0.07690	-2.00277
* . |	1	-0.11551	0.05768	-2.00277
* . |	2	-0.07701	0.03845	-2.00277
* . |	3	-0.03850	0.01923	-2.00277
	Sum of Lags	-0.38505	0.19226	-2.00277

SERVICE AREA – SUMMER PEAK

Dependent Variable: LOG(MWSPEAK_OH_KY)
Method: Least Squares
Date: 03/22/10 Time: 11:53
Sample: 1970M01 1999M10
Included observations: 358

Variable	Coefficient	Std. Error	t-Statistic
M741902*MJUN	-2.936786	0.321290	-9.140596
(1-M741902)*MJUN	-3.051508	0.319561	-9.549068
M741902*MJUL	-3.272114	0.290805	-11.25191
(1-M741902)*MJUL	-3.590044	0.187629	-19.13372
M741902*MAUG	-1.577271	0.244648	-6.447092
(1-M741902)*MAUG	-4.294807	0.235495	-18.23732
MSEP	-3.845338	0.288032	-13.35040
(M741902)*(MJUN+MSEP)*LOG(KWHSENDNORM_OH_KY/1000/DAYS)	0.902509	0.018292	49.33874
(1-M741902)*(MJUN+MSEP)*LOG(KWHSENDNORM_OH_KY/1000/DAYS)	0.913549	0.018106	50.45627
(M741902)*(MJUL)*LOG(KWHSENDNORM_OH_KY/1000/DAYS)	0.915045	0.024667	37.09543
(1-M741902)*(MJUL)*LOG(KWHSENDNORM_OH_KY/1000/DAYS)	0.941170	0.013726	68.56721
(M741902)*(MAUG)*LOG(KWHSENDNORM_OH_KY/1000/DAYS)	0.748490	0.020373	36.73936
(1-M741902)*(MAUG)*LOG(KWHSENDNORM_OH_KY/1000/DAYS)	0.992985	0.019119	51.93598
(MJUN)*PMHIGH	0.006611	0.002611	2.531835
(MJUL+MAUG+MSEP)*PMHIGH	0.010161	0.001124	9.037381
(MJUN+MJUL+MAUG+MSEP)*PREVPMHIGH	0.002646	0.000611	4.332929
(MJUN+MAUG)*AMLOW	0.005196	0.000811	6.409587
MJUL*AMLOW	0.003094	0.000962	3.217875
MSEP*AMLOW	0.013312	0.002780	4.788846
(MJUN+MJUL+MAUG+MSEP)*PMHUMIDATHIGH	0.000795	0.000306	2.596490
JULY4WEEK*PMHIGH	-0.000318	7.84E-05	-4.053786
M715	-0.104701	0.036584	-2.861906
M717	-0.132527	0.036588	-3.622107
M8411	-0.110483	0.035762	-3.089373
M906	-0.122190	0.035853	-3.408055
M918	0.106161	0.047754	2.223089
M922	-0.097897	0.035875	-2.728857
M926	-0.077772	0.036025	-2.158808
@ISPERIOD("1991M04")	0.109121	0.035620	3.063488
@ISPERIOD("1991M05")	0.108509	0.035858	3.026099
M969983	-0.090000	0.011610	-7.752040
@ISPERIOD("1998M05")	0.083946	0.037578	2.233950

R-squared	0.980774	Mean dependent var
Adjusted R-squared	0.978945	S.D. dependent var
S.E. of regression	0.034724	Akaike info criterion
Sum squared resid	0.393083	Schwarz criterion
Log likelihood	711.7738	Durbin-Watson stat

SERVICE AREA – WINTER PEAK

Dependent Variable: LOG(MWWPEAK_OH_KY)
Method: Least Squares
Date: 03/09/10 Time: 15:47
Sample: 1975M04 1991M03
Included observations: 192

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AMPEAK*(MDEC+MJAN+MFEB+MMAR)	-1.440853	0.173027	-8.327338	0.0000
AMPEAK*(MDEC+MJAN+MFEB+MMAR)*LOG(KWHSENDNORM_OH_KY_W/1000/DAYS)	0.869852	0.015682	55.46925	0.0000
AMPEAK*(MDEC+MJAN+MFEB+MMAR)*AMLOW	-0.003821	0.000662	-5.770433	0.0000
AMPEAK*(MDEC+MJAN+MFEB+MMAR)*WINDAM	0.001587	0.000774	2.050410	0.0419
AMPEAK*(MDEC+MJAN+MFEB+MMAR)*PREVPMLOW	-0.001318	0.000562	-2.346848	0.0201
PMPEAK*(MDEC+MJAN+MFEB+MMAR)	-1.415024	0.266862	-5.302465	0.0000
PMPEAK*(MDEC+MMAR)*LOG(KWHSENDNORM_OH_KY_W/1000/DAYS)	0.870265	0.024244	35.89640	0.0000
PMPEAK*(MJAN+MFEB)*LOG(KWHSENDNORM_OH_KY_W/1000/DAYS)	0.867854	0.024221	35.83018	0.0000
PMPEAK*(MDEC+MJAN+MFEB+MMAR)*PMLOW	-0.004509	0.000682	-6.612049	0.0000
AMPEAK*XMAS	-0.034433	0.013636	-2.525108	0.0125
PMPEAK*XMAS	-0.054970	0.015967	-3.442768	0.0007
M863	-0.190879	0.037093	-5.145999	0.0000
M858	-0.095777	0.036891	-2.596214	0.0103
M882	-0.103164	0.036844	-2.800030	0.0057
M874	-0.167364	0.037111	-4.509890	0.0000
M888	-0.122949	0.036367	-3.380778	0.0009
M889	-0.204194	0.036924	-5.530150	0.0000
M901	-0.116963	0.035683	-3.277873	0.0013
M891	-0.099551	0.035399	-2.812293	0.0055
@ISPERIOD("1976m12")	-0.065217	0.035020	-1.862277	0.0643
@ISPERIOD("1977m10")	-0.088827	0.036422	-2.438865	0.0158
@ISPERIOD("1977m11")	-0.096275	0.034807	-2.765930	0.0063
@ISPERIOD("1978m01")	-0.092340	0.037666	-2.451533	0.0153
@ISPERIOD("1978m10")	-0.092495	0.034951	-2.646414	0.0089
@ISPERIOD("1991m01")	-0.099366	0.035231	-2.820437	0.0054

R-squared	0.966556	Mean dependent var	8.116705
Adjusted R-squared	0.961750	S.D. dependent var	0.176163
S.E. of regression	0.034453	Akaike info criterion	-3.777512
Sum squared resid	0.198233	Schwarz criterion	-3.353358
Log likelihood	387.6411	Durbin-Watson stat	1.222583

Mnemonics Definitions

VARIABLE	DESCRIPTION
@ISPERIOD("1976M12")	QUALITATIVE VARIABLE - PEAK MODEL
@ISPERIOD("1977M10")	QUALITATIVE VARIABLE - PEAK MODEL
@ISPERIOD("1977M11")	QUALITATIVE VARIABLE - PEAK MODEL
@ISPERIOD("1978M01")	QUALITATIVE VARIABLE - PEAK MODEL
@ISPERIOD("1978M10")	QUALITATIVE VARIABLE - PEAK MODEL
@ISPERIOD("1991M01")	QUALITATIVE VARIABLE - PEAK MODEL
@ISPERIOD("1991M04")	QUALITATIVE VARIABLE - PEAK MODEL
@ISPERIOD("1991M05")	QUALITATIVE VARIABLE - PEAK MODEL
@ISPERIOD("1998M05")	QUALITATIVE VARIABLE - PEAK MODEL
@MONTH=1	QUALITATIVE VARIABLE - JANUARY
@MONTH=10	QUALITATIVE VARIABLE - OCTOBER
@MONTH=11	QUALITATIVE VARIABLE - NOVEMBER
@MONTH=12	QUALITATIVE VARIABLE - DECEMBER
@MONTH=2	QUALITATIVE VARIABLE - FEBRUARY
@MONTH=3	QUALITATIVE VARIABLE - MARCH
@MONTH=4	QUALITATIVE VARIABLE - APRIL
@MONTH=5	QUALITATIVE VARIABLE - MAY
@MONTH=6	QUALITATIVE VARIABLE - JUNE
@MONTH=7	QUALITATIVE VARIABLE - JULY
@MONTH=8	QUALITATIVE VARIABLE - AUGUST
@MONTH=9	QUALITATIVE VARIABLE - SEPTEMBER
@QUARTER=1	QUALITATIVE VARIABLE - FIRST QUARTER
@QUARTER=2	QUALITATIVE VARIABLE - SECOND QUARTER
@QUARTER=3	QUALITATIVE VARIABLE - THIRD QUARTER
@QUARTER=4	QUALITATIVE VARIABLE - FOURTH QUARTER
AMLOW	MINIMUM HOURLY TEMPERATURE - MORNING
AMPEAK	QUALITATIVE VARIABLE - MORNING PEAK
APGIND_OH_KY	SERVICE AREA AVERAGE PRICE OF GAS FOR INDUSTRIAL CUSTOMERS
APGOPA_OH_KY	SERVICE AREA AVERAGE PRICE OF GAS FOR OPA CUSTOMERS
APPLSTK_EFF_OH_KY	EFFICIENT APPLIANCE STOCK
BASE	BUTLER COUNTY BASE AMOUNT OF MWH SALES - INDUSTRIAL - PRIMARY METAL INDUSTRIES
CDD_OH_KY_65	COOLING DEGREE DAYS
CDDB_OH_KY_65	BILLING COOLING DEGREE DAYS
CDDB_OH_KY_65_0_100	=MINIMUM(CDDB_OH_KY,100)
CDDB_OH_KY_65_100	=MAXIMUM(CDDB_OH_KY-100,0)
CPI	CONSUMER PRICE INDEX (ALL URBAN) - ALL ITEMS
CUSRES_OH_KY	SERVICE AREA ELECTRIC CUSTOMERS - RESIDENTIAL
D_1965M01_2001M12	QUALITATIVE VARIABLE - JANUARY, 1965 THRU DECEMBER, 2001
D_1965M01_2002M12	QUALITATIVE VARIABLE - JANUARY, 1965 THRU DECEMBER, 2002
D_1965M01_2005M12	QUALITATIVE VARIABLE - JANUARY, 1965 THRU DECEMBER, 2005
D_1965M01_2007M09	QUALITATIVE VARIABLE - JANUARY, 1965 THRU SEPTEMBER, 2007
D_1965Q1_1980Q2	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 TO SECOND QUARTER, 1980
D_1965Q1_1985Q4	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 TO FOURTH QUARTER, 1985
D_1965Q1_1986Q4	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 THRU FOURTH QUARTER, 1986
D_1965Q1_1988Q3	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 THRU THIRD QUARTER, 1988
D_1965Q1_1990Q4	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 THRU FOURTH QUARTER, 1990
D_1965Q1_1995Q4	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 TO FOURTH QUARTER, 1995
D_1965Q1_1998Q2	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 TO SECOND QUARTER, 1998
D_1965Q1_2000Q2	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 THRU SECOND QUARTER, 2000
D_1965Q1_2001Q2	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 TO SECOND QUARTER, 2001
D_1965Q1_2001Q3	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 THRU THIRD QUARTER, 2001
D_1965Q1_2005Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 1965 THRU FIRST QUARTER, 2005
D_1976M01_1984M12	QUALITATIVE VARIABLE - JANUARY, 1976 THRU DECEMBER, 1984
D_1976Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 1976
D_1976Q1_1989Q2	QUALITATIVE VARIABLE - FIRST QUARTER, 1976 TO SECOND QUARTER, 1989
D_1976Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 1976
D_1976Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 1976
D_1977Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 1977
D_1977Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 1977
D_1978Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 1978
D_1978Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 1978
D_1979Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 1979
D_1979Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 1979
VARIABLE	DESCRIPTION
D_1980M02	QUALITATIVE VARIABLE - FEBRUARY, 1980

D_1980Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 1980
D_1980Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 1980
D_1982M06	QUALITATIVE VARIABLE - JUNE, 1982
D_1982Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 1982
D_1983Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 1983
D_1985Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 1985
D_1986Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 1986
D_1988M05_1988M08	QUALITATIVE VARIABLE - MAY, 1988 THRU AUGUST, 1988
D_1988Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 1988
D_1988Q4	*QUALITATIVE VARIABLE - FOURTH QUARTER, 1988*
D_1989Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 1989
D_1990Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 1990
D_1991M03	QUALITATIVE VARIABLE - MARCH, 1991
D_1991M04	QUALITATIVE VARIABLE - APRIL, 1991
D_1991M06	QUALITATIVE VARIABLE - JUNE, 1991
D_1991M11	QUALITATIVE VARIABLE - NOVEMBER, 1991
D_1991M12	QUALITATIVE VARIABLE - DECEMBER, 1991
D_1991Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 1991
D_1991Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 1991
D_1992M03	QUALITATIVE VARIABLE - MARCH, 1992
D_1992M06	QUALITATIVE VARIABLE - JUNE, 1992
D_1992M07	QUALITATIVE VARIABLE - JULY, 1992
D_1992Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 1992
D_1992Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 1992
D_1993M07	QUALITATIVE VARIABLE - JULY, 1993
D_1993M09	QUALITATIVE VARIABLE - SEPTEMBER, 1993
D_1993M10	QUALITATIVE VARIABLE - OCTOBER, 1993
D_1993M11	QUALITATIVE VARIABLE - NOVEMBER, 1993
D_1993Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 1993
D_1994M01	QUALITATIVE VARIABLE - JANUARY, 1994
D_1994M02	QUALITATIVE VARIABLE - FEBRUARY, 1994
D_1994M05	QUALITATIVE VARIABLE - MAY, 1994
D_1995M04	QUALITATIVE VARIABLE - APRIL, 1995
D_1995M05	QUALITATIVE VARIABLE - MAY, 1995
D_1995M08	QUALITATIVE VARIABLE - AUGUST, 1995
D_1996M09	QUALITATIVE VARIABLE - SEPTEMBER, 1996
D_1996Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 1996
D_1997M10	QUALITATIVE VARIABLE - OCTOBER, 1997
D_1997M12	QUALITATIVE VARIABLE - DECEMBER, 1997
D_1997Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 1997
D_1998M05	QUALITATIVE VARIABLE - MAY, 1998
D_1998M06	QUALITATIVE VARIABLE - JUNE, 1998
D_1998M08	QUALITATIVE VARIABLE - AUGUST, 1998
D_1998M10	QUALITATIVE VARIABLE - OCTOBER, 1998
D_1998Q3_2001Q2	QUALITATIVE VARIABLE - THIRD QUARTER, 1998 THRU SECOND QUARTER, 2001
D_1999M02	QUALITATIVE VARIABLE - FEBRUARY, 1999
D_1999M06	QUALITATIVE VARIABLE - JUNE, 1999
D_1999M08	QUALITATIVE VARIABLE - AUGUST, 1999
D_1999M10	QUALITATIVE VARIABLE - OCTOBER, 1999
D_1999M11	QUALITATIVE VARIABLE - NOVEMBER, 1999
D_1999M12	QUALITATIVE VARIABLE - DECEMBER, 1999
D_1999Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 1999
D_1999Q1_2001Q2	QUALITATIVE VARIABLE - FIRST QUARTER, 1999 THRU SECOND QUARTER, 2001
D_1999Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 1999
D_2000M01	QUALITATIVE VARIABLE - JANUARY, 2000
D_2000M04	QUALITATIVE VARIABLE - APRIL, 2000
D_2000M05	QUALITATIVE VARIABLE - MAY, 2000
D_2000M06	QUALITATIVE VARIABLE - JUNE, 2000
D_2000M07	QUALITATIVE VARIABLE - JULY, 2000
D_2000M08_2001M12	QUALITATIVE VARIABLE - AUGUST, 2000 THRU DECEMBER, 2001
D_2000M10	QUALITATIVE VARIABLE - OCTOBER, 2000
D_2000M11	QUALITATIVE VARIABLE - NOVEMBER, 2000
D_2000M12	QUALITATIVE VARIABLE - DECEMBER, 2000
D_2000Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 2000
D_2000Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 2000
VARIABLE	DESCRIPTION
D_2000Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 2000
D_2000Q3_2001Q2	QUALITATIVE VARIABLE - THIRD QUARTER, 2000 THRU SECOND QUARTER, 2001
D_2000Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 2000
D_2001M01	QUALITATIVE VARIABLE - JANUARY, 2001
D_2001M02	QUALITATIVE VARIABLE - FEBRUARY, 2001
D_2001M03	QUALITATIVE VARIABLE - MARCH, 2001

D_2001M04	QUALITATIVE VARIABLE - APRIL, 2001
D_2001M05	QUALITATIVE VARIABLE - MAY, 2001
D_2001M06	QUALITATIVE VARIABLE - JUNE, 2001
D_2001M07	QUALITATIVE VARIABLE - JULY, 2001
D_2001M08	QUALITATIVE VARIABLE - AUGUST, 2001
D_2001M09_2002M06	QUALITATIVE VARIABLE - SEPTEMBER, 2001 THRU JUNE, 2002
D_2001Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 2001
D_2002M02	QUALITATIVE VARIABLE - FEBRUARY, 2002
D_2002M04	QUALITATIVE VARIABLE - APRIL, 2002
D_2002M05	QUALITATIVE VARIABLE - MAY, 2002
D_2002M06	QUALITATIVE VARIABLE - JUNE, 2002
D_2002M07	QUALITATIVE VARIABLE - JULY, 2002
D_2002M07_2003M01	QUALITATIVE VARIABLE - JULY, 2002 THRU JANUARY, 2003
D_2002M08	QUALITATIVE VARIABLE - AUGUST, 2002
D_2002M10	QUALITATIVE VARIABLE - OCTOBER, 2002
D_2002M12	QUALITATIVE VARIABLE - DECEMBER, 2002
D_2002Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 2002
D_2002Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 2002
D_2003M01	QUALITATIVE VARIABLE - JANUARY, 2003
D_2003M02	QUALITATIVE VARIABLE - FEBRUARY, 2003
D_2003M05	QUALITATIVE VARIABLE - MAY, 2003
D_2003M06	QUALITATIVE VARIABLE - JUNE, 2003
D_2003M12	QUALITATIVE VARIABLE - DECEMBER, 2003
D_2003Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 2003
D_2003Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 2003
D_2004M01	QUALITATIVE VARIABLE - JANUARY, 2004
D_2004M03	QUALITATIVE VARIABLE - MARCH, 2004
D_2004M05	QUALITATIVE VARIABLE - MAY, 2004
D_2004M07	QUALITATIVE VARIABLE - JULY, 2004
D_2004M09	QUALITATIVE VARIABLE - SEPTEMBER, 2004
D_2004M10	QUALITATIVE VARIABLE - OCTOBER, 2004
D_2004M11	QUALITATIVE VARIABLE - NOVEMBER, 2004
D_2004M12	QUALITATIVE VARIABLE - DECEMBER, 2004
D_2004Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 2004
D_2004Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 2004
D_2004Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 2004
D_2005M01	QUALITATIVE VARIABLE - JANUARY, 2005
D_2005M02	QUALITATIVE VARIABLE - FEBRUARY, 2005
D_2005M03	QUALITATIVE VARIABLE - MARCH, 2005
D_2005M08	QUALITATIVE VARIABLE - AUGUST, 2005
D_2005Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 2005
D_2005Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 2005
D_2005Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 2005
D_2006M02	QUALITATIVE VARIABLE - FEBRUARY, 2006
D_2006M09	QUALITATIVE VARIABLE - SEPTEMBER, 2006
D_2006M10	QUALITATIVE VARIABLE - OCTOBER, 2006
D_2006Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 2006
D_2006Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 2006
D_2007M02	QUALITATIVE VARIABLE - FEBRUARY, 2007
D_2007M04	QUALITATIVE VARIABLE - APRIL, 2007
D_2007M05	QUALITATIVE VARIABLE - MAY, 2007
D_2007M06	QUALITATIVE VARIABLE - JUNE, 2007
D_2007M10	QUALITATIVE VARIABLE - OCTOBER, 2007
D_2007Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 2007
D_2007Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 2007
D_2007Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 2007
D_2008M10	QUALITATIVE VARIABLE - OCTOBER, 2008
D_2008M11	QUALITATIVE VARIABLE - NOVEMBER, 2008
D_2008M12	QUALITATIVE VARIABLE - DECEMBER, 2008
D_2008Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 2008
VARIABLE	DESCRIPTION
D_2008Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 2008
D_2008Q4	QUALITATIVE VARIABLE - FOURTH QUARTER, 2008
D_2009M01	QUALITATIVE VARIABLE - JANUARY, 2009
D_2009M02	QUALITATIVE VARIABLE - FEBRUARY, 2009
D_2009M05	QUALITATIVE VARIABLE - MAY, 2009
D_2009M09	QUALITATIVE VARIABLE - SEPTEMBER, 2009
D_2009Q1	QUALITATIVE VARIABLE - FIRST QUARTER, 2009
D_2009Q2	QUALITATIVE VARIABLE - SECOND QUARTER, 2009
D_2009Q3	QUALITATIVE VARIABLE - THIRD QUARTER, 2009
D_DJF	=(@MONTH=12+@MONTH=1+@MONTH=2)
D_JJA	=(@MONTH=6+@MONTH=7+@MONTH=8)

DAYS	NUMBER OF DAYS IN THE MONTH
DS_KW_IND_OH_KY	SERVICE AREA DS RATE FOR DEMAND FOR INDUSTRIAL CUSTOMERS
DS_KW_OPA_OH_KY	SERVICE AREA DS RATE FOR DEMAND FOR OTHER PUBLIC AUTHORITIES CUSTOMERS
DS_KWH_COM_OH_KY	SERVICE AREA DS RATE FOR USAGE FOR COMMERCIAL CUSTOMERS
DS_KWH_IND_OH_KY	SERVICE AREA DS RATE FOR USAGE FOR INDUSTRIAL CUSTOMERS
DS_KWH_OPA_OH_KY	SERVICE AREA DS RATE FOR USAGE FOR OTHER PUBLIC AUTHORITIES CUSTOMERS
E90X_OH_KY	SERVICE AREA EMPLOYMENT - STATE AND LOCAL GOVERNMENT
ECOM_OH_KY	SERVICE AREA EMPLOYMENT - COMMERCIAL
EFF_CAC_OH_KY	EFFICIENCY OF CENTRAL AIR CONDITIONING UNITS IN SERVICE AREA
EFF_EHP_OH_KY	EFFICIENCY OF ELECTRIC HEAT PUMP UNITS IN SERVICE AREA
EFF_RAC_OH_KY	EFFICIENCY OF WINDOW AIR CONDITIONING UNITS IN SERVICE AREA
HDDB_OH_KY_59	BILLING HEATING DEGREE DAYS
HDDB_OH_KY_59_0_500	=MINIMUM(HDDB_OH_KY,500)
HDDB_OH_KY_59_500	=MAXIMUM(HDDB_OH_KY-500,0)
JQINDN311_312_OH_KY	SERVICE AREA INDUSTRIAL PRODUCTION INDEX - FOOD AND PRODUCTS
JQINDN322_326_OH_KY	SERVICE AREA INDUSTRIAL PRODUCTION INDEX - PAPER AND PRODUCTS
JQINDN325_OH_KY	SERVICE AREA INDUSTRIAL PRODUCTION INDEX - CHEMICALS AND PRODUCTS
JQINDN331_BUTLER	BUTLER COUNTY INDUSTRIAL PRODUCTION INDEX - PRIMARY METAL INDUSTRIES
JQINDN331_CMSA	CINCINNATI CMSA INDUSTRIAL PRODUCTION INDEX - PRIMARY METAL INDUSTRIES
JQINDN332_OH_KY	SERVICE AREA INDUSTRIAL PRODUCTION INDEX - FABRICATED METALS
JQINDN333_OH_KY	SERVICE AREA INDUSTRIAL PRODUCTION INDEX - INDUSTRIAL MACHINERY & EQUIPMENT
JQINDN334_OH_KY	SERVICE AREA INDUSTRIAL PRODUCTION INDEX - COMPUTER AND ELECTRONICS
JQINDN335_OH_KY	SERVICE AREA INDUSTRIAL PRODUCTION INDEX - ELECTRICAL EQUIPMENT
JQINDN3364_OH_KY	SERVICE AREA INDUSTRIAL PRODUCTION INDEX - AIRCRAFT AND PARTS
JQINDN361_62_63_OH_KY	SERVICE AREA INDUSTRIAL PRODUCTION INDEX - MOTOR VEHICLES AND PARTS
JQINDNAOI_OH_KY	SERVICE AREA INDUSTRIAL PRODUCTION - ALL OTHER INDUSTRIES
JULY4WEEK	QUALITATIVE VARIABLE FOR THE WEEK OF JULY 4TH
KWHCOM_OH_KY	SERVICEA KWH SALES - COMMERCIAL
KWHOPALWP_OH_KY	SERVICE AREA KWH SALES - OPA LESS WATER PUMPING
KWHOPAWP_OH_KY	SERVICE AREA KWH SALES - OPA WATER PUMPING
KWHRES_OH_KY	SERVICE AREA KWH SALES - RESIDENTIAL
KWHSENDNORM_OH_KY	SERVICE AREA KWH SENDOUT - WEATHER NORMALIZED
KWHSL_OH_KY	SERVICE AREA KWH SALES - STREET LIGHTING
M715	QUALITATIVE VARIABLE - PEAK MODEL
M717	QUALITATIVE VARIABLE - PEAK MODEL
M741902	QUALITATIVE VARIABLE - PEAK MODEL
M8411	QUALITATIVE VARIABLE - PEAK MODEL
M858	QUALITATIVE VARIABLE - PEAK MODEL
M863	QUALITATIVE VARIABLE - PEAK MODEL
M874	QUALITATIVE VARIABLE - PEAK MODEL
M882	QUALITATIVE VARIABLE - PEAK MODEL
M888	QUALITATIVE VARIABLE - PEAK MODEL
M889	QUALITATIVE VARIABLE - PEAK MODEL
M891	QUALITATIVE VARIABLE - PEAK MODEL
M901	QUALITATIVE VARIABLE - PEAK MODEL
M906	QUALITATIVE VARIABLE - PEAK MODEL
M918	QUALITATIVE VARIABLE - PEAK MODEL
M922	QUALITATIVE VARIABLE - PEAK MODEL
M926	QUALITATIVE VARIABLE - PEAK MODEL
M969983	QUALITATIVE VARIABLE - PEAK MODEL
MAUG	QUALITATIVE VARIABLE - AUGUST
MDEC	QUALITATIVE VARIABLE - DECEMBER
MFEB	QUALITATIVE VARIABLE - FEBRUARY
MJAN	QUALITATIVE VARIABLE - JANUARY
MJUL	QUALITATIVE VARIABLE - JULY
VARIABLE	DESCRIPTION
MJUN	QUALITATIVE VARIABLE - JUNE
MMAR	QUALITATIVE VARIABLE - MARCH
MP_RES_OH_KY	MARGINAL PRICE OF ELECTRICITY - RESIDENTIAL
MSEP	QUALITATIVE VARIABLE - SEPTEMBER
MWHN311_312_OH_KY	SERVICE AREA MWH SALES - INDUSTRIAL - FOOD AND PRODUCTS
MWHN322_326_OH_KY	SERVICE AREA MWH SALES - INDUSTRIAL - PAPER AND PRODUCTS
MWHN325_OH_KY	SERVICE AREA MWH SALES - INDUSTRIAL - CHEMICALS AND PRODUCTS
MWHN331_BUTLER	BUTLER COUNTY MWH SALES - INDUSTRIAL - PRIMARY METAL INDUSTRIES
MWHN331LARM_OH_KY	SERVICE AREA MWH SALES LESS BUTLER COUNTY - INDUSTRIAL - PRIMARY METAL INDUSTRIES
MWHN332_OH_KY	SERVICE AREA MWH SALES - INDUSTRIAL - FABRICATED METALS
MWHN333_OH_KY	SERVICE AREA MWH SALES - INDUSTRIAL - INDUSTRIAL MACHINERY AND EQUIPMENT
MWHN334_OH_KY	SERVICE AREA MWH SALES - INDUSTRIAL - COMPUTER AND ELECTRONICS
MWHN335_OH_KY	SERVICE AREA MWH SALES - INDUSTRIAL - ELECTRICAL EQUIPMENT
MWHN3361_3362_3363_OH_KY	SERVICE AREA MWH SALES - INDUSTRIAL - MOTOR VEHICLES AND PARTS
MWHN3364_OH_KY	SERVICE AREA MWH SALES - INDUSTRIAL - TRANSPORTATION EQUIPMENT

MWHN3364_OH_KY	OTHER THAN MOTOR VEHICLES AND PARTS
MWHNAOI_OH_KY	SERVICE AREA MWH SALES - INDUSTRIAL - ALL OTHER INDUSTRIES
MWSPEAK_OH_KY	SERVICE AREA MW PEAK - SUMMER
MWWPEAK_OH_KY	SERVICE AREA MW PEAK - WINTER
N_OH_KY	SERVICE AREA TOTAL POPULATION
PMHIGH	MAXIMUM HOURLY TEMPERATURE - AFTERNOON
PMHUMIDATHIGH	HUMIDITY - AFTERNOON
PMLOW	MINIMUM HOURLY TEMPERATURE - EVENING
PMPEAK	QUALITATIVE VARIABLE - EVENING PEAK
PRECIP_OH_KY	SERVICE AREA PRECIPITATION
PREVPMHIGH	MAXIMUM HOURLY TEMPERATURE - PREVIOUS AFTERNOON
PREVPMLOW	MINIMUM HOURLY TEMPERATURE - PREVIOUS AFTERNOON
SAT_CAC_EFF	=EFF_CAC_OH_KY*(SAT_EHP_OH_KY+SAT_CACNHP_OH_KY)
SAT_CACNHP_OH_KY	SERVICE AREA SATURATION OF CENTRAL AIR CONDITIONING WITHOUT HEAT PUMP
SAT_EH_EFF	=(SAT_ER_OH_KY+(SAT_EHP_OH_KY*EFF_EHP_OH_KY))
SAT_EHP_OH_KY	SERVICE AREA SATURATION OF ELECTRIC HEAT PUMPS - RESIDENTIAL
SAT_ER_OH_KY	SATURATION RATE OF ELECTRIC RESISTANCE HEATERS IN SERVICE AREA
SAT_RAC_EFF	=EFF_RAC_OH_KY*SAT_RAC_OH_KY
SAT_RAC_OH_KY	SERVICE AREA SATURATION OF WINDOW AIR CONDITIONING SERVICE AREA
SAT_SL_OH_KY	=(0.5*SATMERC_OH_KY)+(0.5*SATSODVAP_OH_KY)
SATMERC_OH_KY	SERVICE AREA SATURATION OF MERCURY VAPOR STREET LIGHTING
SATSODVAP_OH_KY	SERVICE AREA SATURATION OF SODIUM VAPOR STREET LIGHTING
TS_KW_IND_OH_KY	SERVICE AREA TS RATE FOR DEMAND FOR INDUSTRIAL CUSTOMERS
TS_KWH_IND_OH_KY	SERVICE AREA TS RATE FOR USAGE FOR INDUSTRIAL CUSTOMERS
WINDAM	WIND SPEED - MORNING
WPI0561	WHOLESALE PRICE INDEX FOR CRUDE PETROLEUM
XMAS	QUALITATIVE VARIABLE - CHRISTMAS WEEK
YP_OH_KY	SERVICE AREA PERSONAL INCOME

Forecast Error

EQUATION FORECAST ERROR		
MEASURED BY		
MEAN OF THE STANDARD ERRORS		
SERVICE AREA ELECTRIC CUSTOMERS – RESIDENTIAL	8,671	
KWH USE PER CUSTOMER – RESIDENTIAL	23.952	KWH
KWH SALES – COMMERCIAL	26,441,613	KWH
MWH SALES – INDUSTRIAL – FOOD, BEVERAGE AND TOBACCO	5,927	MWH
MWH SALES – INDUSTRIAL – PAPER, PLASTIC AND RUBBER	6,444	MWH
MWH SALES – INDUSTRIAL – CHEMICALS	21,508	MWH
MWH SALES – INDUSTRIAL – PRIMARY METALS - BUTLER	23,153	MWH
MWH SALES – INDUSTRIAL – PRIMARY METALS – LESS BUTLER	2,673	MWH
MWH SALES – INDUSTRIAL – FABRICATED METALS	6,444	MWH
MWH SALES – INDUSTRIAL – MACHINERY	3,507	MWH
MWH SALES – INDUSTRIAL – COMPUTER AND ELECTRONICS	4,310	MWH
MWH SALES – INDUSTRIAL – ELEC. EQUIPMENT, APPLIANCE & COMPONENT	2,839	MWH
MWH SALES – INDUSTRIAL – MOTOR VEHICLES AND PARTS	8,571	MWH
MWH SALES – INDUSTRIAL – AEROSPACE PRODUCTS AND PARTS	6,951	MWH
MWH SALES – INDUSTRIAL – MISCELLANEOUS	40,410	MWH
KWH SALES – OTHER PUBLIC AUTHORITIES – WATER PUMPING	593,764	KWH
KWH SALES – OTHER PUBLIC AUTHORITIES – LESS WATER PUMPING	8,983,746	KWH
KWH SALES – STREET LIGHT	287,682	KWH
SERVICE AREA – SUMMER PEAK	188	MW
SERVICE AREA – WINTER PEAK	156	MW

6. Computer Software

The computer software package employed in the preparation of the forecast is called Eviews. It is a licensed software product utilized on microcomputers.

SECTION II FORECASTS FOR ELECTRIC TRANSMISSION OWNERS

A. GENERAL GUIDELINES

No Response Required.

B. ELECTRIC TRANSMISSION FORECAST

This section of the 2010 Electric Long-Term Forecast Report contains the transmission forecast forms FE-T1 through FE-T10 as required by OAC 4901:5-5-04.

FORM FE-T1: TRANSMISSION ENERGY DELIVERY FORECAST
(Megawatt Hours/Year) (a)

	YEAR	(1) ENERGY RECEIPTS FROM GENERATION SOURCES CONNECTED TO THE OWNER'S SYSTEM INSIDE OHIO	ENERGY RECEIPTS FROM GENERATION SOURCES CONNECTED TO THE SYSTEM OUTSIDE OHIO	(3) TOTAL ENERGY RECEIPTS FROM GENERATION SOURCES 1 + 2	(4) ENERGY RECEIPTS AT INTERCONNECTIONS WITH OTHER TRANSMISSION COMPANIES INSIDE OHIO	(5) ENERGY RECEIPTS AT INTERCONNECTIONS WITH OTHER TRANSMISSION COMPANIES OUTSIDE OHIO	(6) TOTAL ENERGY RECEIPTS AT INTERCONNECTIONS 4 + 5	(7) TOTAL ENERGY RECEIPTS 3 + 6	(8) ENERGY DELIVERIES AT INTERCONNECTIONS WITH OTHER TRANSMISSION COMPANIES INSIDE OHIO	(9) ENERGY DELIVERIES AT INTERCONNECTIONS WITH OTHER TRANSMISSION COMPANIES OUTSIDE OHIO	TOTAL ENERGY DELIVERIES AT INTERCONNECTIONS 8+9	(11) TOTAL ENERGY DELIVERIES FOR LOAD CONNECTED TO THE SYSTEM 7-10	(12) ENERGY DELIVERIES FOR LOADS CONNECTED TO THE SYSTEM INSIDE OHIO	(13) ENERGY DELIVERIES FOR LOADS CONNECTED TO THE SYSTEM OUTSIDE OHIO 11-12
-5	2005	24,477,705	3,705,966	28,183,671	13,948,376	1,153,815	15,102,191	43,285,862	14,449,752	151,195	14,600,947	28,684,915	24,352,787	4,332,128
-4	2006	23,491,130	4,972,870	28,464,000	14,156,964	581,918	14,738,882	43,202,882	15,263,738	306,588	15,570,326	27,632,556	23,573,015	4,059,541
-3	2007	21,523,069	3,794,386	25,317,455	17,109,515	926,439	18,035,954	43,353,409	13,987,699	327,267	14,314,966	29,038,443	24,535,599	4,502,844
-2	2008	20,212,738	4,241,387	24,454,125	17,184,908	1,199,563	18,384,471	42,838,596	14,712,665	184,035	18,496,700	27,941,896	23,542,249	4,399,647
-1	2009	21,060,436	4,278,054	25,338,490	15,856,020	863,773	16,719,793	42,058,283	15,523,646	235,746	15,759,392	26,298,891	22,131,394	4,167,497
0	2010											16,876,556	12,824,742	4,051,814
1	2011											16,299,034	12,219,339	4,079,695
2	2012											26,212,561	22,050,374	4,162,187
3	2013											26,240,012	22,073,644	4,166,369
4	2014											26,303,244	22,127,600	4,175,644
5	2015											26,265,720	22,096,692	4,169,027
6	2016											26,274,281	22,104,800	4,169,481
7	2017											26,293,429	22,122,545	4,170,884
8	2018											26,367,673	22,186,316	4,181,357
9	2019											26,417,506	22,230,018	4,187,488
10	2020											26,508,965	22,308,352	4,200,613

(a) To be filled out by electric transmission owners operating in Ohio.

PUCO Form FE-T2 : ETO System Seasonal Peak Load Demand Forecast					
(Megawatts)(a)					
Before DSM (e) (f)					
		Native Load (b)		Internal Load (c)	
	Year	Summer	Winter (d)	Summer	Winter (d)
-5	2005	4,228	3,224	4,228	3,224
-4	2006	4,366	3,551	4,366	3,551
-3	2007	4,436	3,505	4,459	3,505
-2	2008	4,074	3,526	4,074	3,526
-1	2009	3,675	2,271	3,675	2,271
0	2010	2,709	1,982	2,854	2,083
1	2011	2,593	3,410	2,756	3,522
2	2012	4,323	3,415	4,495	3,535
3	2013	4,328	3,424	4,505	3,548
4	2014	4,329	3,426	4,506	3,550
5	2015	4,301	3,421	4,478	3,545
6	2016	4,305	3,425	4,482	3,549
7	2017	4,307	3,427	4,484	3,551
8	2018	4,317	3,434	4,494	3,558
9	2019	4,319	3,439	4,496	3,563
10	2020	4,328	3,446	4,505	3,570
(a) To be filled out by electric transmission owners operating in Ohio.					
(b) Excludes interruptible load.					
(c) Includes interruptible load.					
(d) Winter load reference is to peak loads which follow the summer peak load.					
(e) Includes historical DSM impacts.					
(f) Historical company peaks not necessarily coincident with system peak					

PUCO Form FE-T2 : ETO System Seasonal Peak Load Demand Forecast					
(Megawatts)(a)					
After DSM (e) (f)					
		Native Load (b)		Internal Load (c)	
	Year	Summer	Winter (d)	Summer	Winter (d)
-5	2005	4,228	3,224	4,228	3,224
-4	2006	4,366	3,551	4,366	3,551
-3	2007	4,436	3,505	4,459	3,505
-2	2008	4,074	3,526	4,074	3,526
-1	2009	3,675	2,271	3,675	2,271
0	2010	2,688	1,952	2,833	2,053
1	2011	2,550	3,351	2,713	3,463
2	2012	4,259	3,325	4,431	3,445
3	2013	4,231	3,292	4,408	3,416
4	2014	4,202	3,264	4,379	3,388
5	2015	4,147	3,229	4,324	3,353
6	2016	4,124	3,204	4,301	3,328
7	2017	4,098	3,152	4,275	3,276
8	2018	4,083	3,131	4,260	3,255
9	2019	4,059	3,108	4,236	3,232
10	2020	4,042	3,091	4,219	3,215
(a) To be filled out by electric transmission owners operating in Ohio.					
(b) Excludes interruptible load.					
(c) Includes interruptible load.					
(d) Winter load reference is to peak loads which follow the summer peak load.					
(e) Includes historical DSM impacts.					
(f) Historical company peaks not necessarily coincident with system peak					

PUCO Form FE-T3: ETO Total Monthly Energy Forecast (MWh)			
After DSM (a)			
Year 0			
January			1,267,421
February			1,049,127
March			1,028,680
April			911,842
May			949,345
June			1,115,522
July			1,243,673
August			1,259,295
September			999,664
October			916,121
November			899,807
December			1,112,026
Year 1			
January			1,164,788
February			967,902
March			944,025
April			833,745
May			873,657
June			1,043,030
July			1,183,114
August			1,213,487
September			971,738
October			895,945
November			878,997
December			1,084,230
(a) Includes DSM impacts.			

PUCO Form FE-T4: ETO Monthly Internal Peak Load Forecast (Megawatts)			
After DSM (a)			
Year 0			
January			2,207
February			2,072
March			1,960
April			1,770
May			2,167
June			2,646
July			2,833
August			2,801
September			2,437
October			1,899
November			1,729
December			2,013
Year 1			
January			2,053
February			1,916
March			1,805
April			1,620
May			1,997
June			2,481
July			2,713
August			2,707
September			2,377
October			1,863
November			1,689
December			1,962
(a) Includes DSM impacts.			

Form FE-T5 - As of February 1, 2002 The Midwest Independent Transmission System Operator (MISO) took over functional control of the transmission system. It is Duke Energy Ohio (DEO) opinion that this form is no longer pertinent to DEO since DEO no longer sells transmission or tracks the firmness thereof. For this reason, DEO cannot guarantee the accuracy of the numbers in firm and non-firm "transmission to transmission service."

FORM FE-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month Jan-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	2,300,082		2,300,082
Energy Receipts from other sources	(232,591)		(232,591)
Total Energy Receipts	2,067,491	0	2,067,491

PART B: DELIVERY OF ENERGY

Reporting Month Jan-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	2,285,037,450	0	2,285,037,450
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	48,887		48,887
Municipal-Owned Electric Systems	47,535		47,535
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,484,249		1,484,249
Total Energy Delivery	2,286,618,121	0	2,286,618,121

FORM FE-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month Jan-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,909,548,263	0	1,909,548,263
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	31,740		31,740
Municipally-Owned Electric Systems	47,535		47,535
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,466,992		1,466,992
Total Energy Delivery	1,911,094,530	0	1,911,094,530

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH Jan-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(2,284,550,630)	0	(2,284,550,630)

(a) FE-T5: Part A minus Part B (1)

FORM FE-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month Feb-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	1,815,666	0	1,815,666
Energy Receipts from other sources	(274,668)		(274,668)
Total Energy Receipts	1,540,998	0	1,540,998

PART B: DELIVERY OF ENERGY

Reporting Month Feb-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	2,089,076,666	0	2,089,076,666
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	39,726	0	39,726
Municipal-Owned Electric Systems	49,855		49,855
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,245,681		1,245,681
Total Energy Delivery	2,090,411,928	0	2,090,411,928

FORM FE-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month Feb-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,745,950,956	0	1,745,950,956
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	24,242		24,242
Municipally-Owned Electric Systems	49,855	0	49,855
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,216,896	0	1,216,896
Total Energy Delivery	1,747,241,949	0	1,747,241,949

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH Feb-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(2,088,870,930)	0	(2,088,870,930)

(a) FE-T5: Part A minus Part B (1)

FORM FE-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month Mar-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	1,631,118	0	1,631,118
Energy Receipts from other sources	(437,130)	0	(437,130)
Total Energy Receipts	1,193,988	0	1,193,988

PART B: DELIVERY OF ENERGY

Reporting Month Mar-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,878,099,818	0	1,878,099,818
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	36,914	0	36,914
Municipal-Owned Electric Systems	46,660	0	46,660
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,246,241	0	1,246,241
Total Energy Delivery	1,879,429,633	0	1,879,429,633

FORM FE-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month **Mar-09**

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,571,525,640	0	1,571,525,640
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	21,304		21,304
Municipally-Owned Electric Systems	46,660	0	46,660
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,238,908	0	1,238,908
Total Energy Delivery	1,572,832,512	0	1,572,832,512

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH **Mar-09**

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(1,878,235,645)	0	(1,878,235,645)

(a) FE-T5: Part A minus Part B (1)

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month **Apr-09**

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	1,545,660	0	1,545,660
Energy Receipts from other sources	(369,326)	0	(369,326)
Total Energy Receipts	1,176,334	0	1,176,334

PART B: DELIVERY OF ENERGY

Reporting Month **Apr-09**

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,711,126,189	0	1,711,126,189
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	34,192	0	34,192
Municipal-Owned Electric Systems	53,144	0	53,144
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,194,332	0	1,194,332
Total Energy Delivery	1,712,407,857	0	1,712,407,857

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month Apr-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,426,956,177	0	1,426,956,177
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	18,322		18,322
Municipally-Owned Electric Systems	53,144	0	53,144
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,192,509	0	1,192,509
Total Energy Delivery	1,428,220,152	0	1,428,220,152

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH Apr-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(1,711,231,523)	0	(1,711,231,523)

(a) FE2-T5: Part A minus Part B (1)

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month May-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	1,527,478	0	1,527,478
Energy Receipts from other sources	(472,492)	0	(472,492)
Total Energy Receipts	1,054,986	0	1,054,986

PART B: DELIVERY OF ENERGY

Reporting Month May-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,704,955,648	0	1,704,955,648
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	33,128	0	33,128
Municipal-Owned Electric Systems	37,638	0	37,638
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,138,648	0	1,138,648
Total Energy Delivery	1,706,165,062	0	1,706,165,062

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month May-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,424,414,579	0	1,424,414,579
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	16,978		16,978
Municipally-Owned Electric Systems	37,638	0	37,638
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,134,608	0	1,134,608
Total Energy Delivery	1,425,603,803	0	1,425,603,803

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH May-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(1,705,110,076)	0	(1,705,110,076)

(a) FE2-T5: Part A minus Part B (1)

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month Jun-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	2,380,708	0	2,380,708
Energy Receipts from other sources	26,441	0	26,441
Total Energy Receipts	2,407,149	0	2,407,149

PART B: DELIVERY OF ENERGY

Reporting Month Jun-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,956,658,509	0	1,956,658,509
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	38,638	0	38,638
Municipal-Owned Electric Systems	39,246	0	39,246
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,323,729	0	1,323,729
Total Energy Delivery	1,958,060,122	0	1,958,060,122

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month Jun-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,633,815,449	0	1,633,815,449
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	20,984		20,984
Municipally-Owned Electric Systems	39,246	0	39,246
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,301,642	0	1,301,642
Total Energy Delivery	1,635,177,321	0	1,635,177,321

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH Jun-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(1,955,652,973)	0	(1,955,652,973)

(a) FE2-T5: Part A minus Part B (1)

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month Jul-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	2,517,162	0	2,517,162
Energy Receipts from other sources	205,597	0	205,597
Total Energy Receipts	2,722,759	0	2,722,759

PART B: DELIVERY OF ENERGY

Reporting Month Jul-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	2,150,199,729	0	2,150,199,729
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	39,228	0	39,228
Municipal-Owned Electric Systems	35,516	0	35,516
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,388,284	0	1,388,284
Total Energy Delivery	2,151,662,757	0	2,151,662,757

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month Jul-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,799,051,805	0	1,799,051,805
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	20,954		20,954
Municipally-Owned Electric Systems	35,516	0	35,516
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,348,827	0	1,348,827
Total Energy Delivery	1,800,457,102	0	1,800,457,102

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH Jul-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(2,148,939,998)	0	(2,148,939,998)

(a) FE2-T5: Part A minus Part B (1)

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month Aug-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	2,572,048	0	2,572,048
Energy Receipts from other sources	63,266	0	63,266
Total Energy Receipts	2,635,314	0	2,635,314

PART B: DELIVERY OF ENERGY

Reporting Month Aug-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	2,094,894,407	0	2,094,894,407
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	41,824	0	41,824
Municipal-Owned Electric Systems	41,895	0	41,895
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,438,159	0	1,438,159
Total Energy Delivery	2,096,416,285	0	2,096,416,285

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month Aug-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,751,899,872	0	1,751,899,872
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	22,998		22,998
Municipally-Owned Electric Systems	41,895	0	41,895
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,423,872	0	1,423,872
Total Energy Delivery	1,753,388,637	0	1,753,388,637

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH Aug-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(2,093,780,971)	0	(2,093,780,971)

(a) FE2-T5: Part A minus Part B (1)

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month Sep-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	2,201,461	0	2,201,461
Energy Receipts from other sources	74,954	0	74,954
Total Energy Receipts	2,276,415	0	2,276,415

PART B: DELIVERY OF ENERGY

Reporting Month Sep-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	2,105,416,839	0	2,105,416,839
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	34,739	0	34,739
Municipal-Owned Electric Systems	37,626	0	37,626
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,181,757	0	1,181,757
Total Energy Delivery	2,106,670,961	0	2,106,670,961

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month Sep-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,759,069,773	0	1,759,069,773
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	18,062		18,062
Municipally-Owned Electric Systems	37,626	0	37,626
Federal and State Electric Agencies			
Other end user service			
	0		
For Non Distribution service (transmission to transmission service)	1,168,339	0	1,168,339
Total Energy Delivery	1,760,293,800	0	1,760,293,800

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH Sep-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(2,104,394,546)	0	(2,104,394,546)

(a) FE2-T5: Part A minus Part B (1)

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month Oct-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	2,493,348	0	2,493,348
Energy Receipts from other sources	461,418	0	461,418
Total Energy Receipts	2,954,766	0	2,954,766

PART B: DELIVERY OF ENERGY

Reporting Month Oct-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,782,982,518	0	1,782,982,518
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	34,257	0	34,257
Municipal-Owned Electric Systems	55,707	0	55,707
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,433,178	0	1,433,178
Total Energy Delivery	1,784,505,660	0	1,784,505,660

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month Oct-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,495,733,571	0	1,495,733,571
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	19,327		19,327
Municipally-Owned Electric Systems	55,707	0	55,707
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,419,678	0	1,419,678
Total Energy Delivery	1,497,228,283	0	1,497,228,283

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH Oct-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(1,781,550,894)	0	(1,781,550,894)

(a) FE2-T5: Part A minus Part B (1)

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month Nov-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	2,398,908	0	2,398,908
Energy Receipts from other sources	400,332	0	400,332
Total Energy Receipts	2,799,240	0	2,799,240

PART B: DELIVERY OF ENERGY

Reporting Month Nov-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,725,413,147	0	1,725,413,147
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	35,773	0	35,773
Municipal-Owned Electric Systems	54,635	0	54,635
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,379,718	0	1,379,718
Total Energy Delivery	1,726,883,273	0	1,726,883,273

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month Nov-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,449,444,868	0	1,449,444,868
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	21,069		21,069
Municipally-Owned Electric Systems	54,635	0	54,635
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,363,862	0	1,363,862
Total Energy Delivery	1,450,884,434	0	1,450,884,434

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH Nov-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(1,724,084,033)	0	(1,724,084,033)

(a) FE2-T5: Part A minus Part B (1)

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

PART A: SOURCES OF ENERGY

Reporting Month Dec-09

1. Energy Receipts from all sources by type: (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
Energy Receipts from Power Plants directly connected to the Electric Transmission Owner's transmission system	1,966,907	0	1,966,907
Energy Receipts from other sources	(406,206)	0	(406,206)
Total Energy Receipts	1,560,701	0	1,560,701

PART B: DELIVERY OF ENERGY

Reporting Month Dec-09

1. Energy deliveries to all points connected to the Electric Transmission Owner's system (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	2,033,277,074	0	2,033,277,074
Other Investor-Owned Electric Utilities			
Cooperative-Owned Electric System	46,397	0	46,397
Municipal-Owned Electric Systems	42,394	0	42,394
Federal and State Electric Agencies			
Other end user service			
For Non Distribution service (transmission to transmission service)	1,262,777	0	1,262,777
Total Energy Delivery	2,034,628,642	0	2,034,628,642

FORM FE3-T5 MONTHLY ENERGY TRANSACTIONS (TOTAL MWH/MONTH) FOR THE MOST RECENT YEAR

Reporting Month Dec-09

2. Energy deliveries to all points connected to the Electric Transmission Owner's system located in Ohio (MWH)

	Firm Transmission Service	Non-Firm Transmission Service	Total
For Distribution service:			
Affiliated Electric Utility Companies	1,696,862,715	0	1,696,862,715
Other Investor-Owned Electric Utilities			
Cooperatively-Owned Electric System	28,744		28,744
Municipally-Owned Electric Systems	42,394	0	42,394
Federal and State Electric Agencies	0		
Other end user service			
For Non Distribution service (transmission to transmission service)	1,247,513	0	1,247,513
Total Energy Delivery	1,698,181,366	0	1,698,181,366

PART C: LOSSES AND UNACCOUNTED FOR (MWH)

REPORTING MONTH Dec-09

	Firm Transmission Service	Non-Firm Transmission Service	Total
Sources minus Delivery (a)	(2,033,067,941)	0	(2,033,067,941)

(a) FE2-T5: Part A minus Part B (1)

As of February 1, 2002 the Midwest ISO took over the function of managing DEO's Transmission Service Requests. As such, the allocation of AFC is the sole responsibility of the Midwest ISO.

FORM FE-T6: CONDITIONS AT TIME OF MONTHLY PEAK

Reporting Month JANUARY

Megawatts	3,651	Day of Week	FRI	Day of Month	16	Hour of Peak	9:00
CURTAILMENT PRIORITY CLASSES				Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests				63	1	64	
Requests (MW)				20,035	360	20395	
Number of requests accepted				28	0	28	
Requests accepted (MW)				13,812	0	13812	
							Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery				6,223	360	6583	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

Reporting Month FEBRUARY

Megawatts	3,514	Day of Week	THUR	Day of Month	5	Hour of Peak	8:00
CURTAILMENT PRIORITY CLASSES				Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests				65	2	67	
Requests (MW)				19,455	368	19,823	
Number of requests accepted				28	1	29	
Requests accepted (MW)				13,132	8	13,140	
							Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery				6,323	360	6,683	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

FORM FE-T6: CONDITIONS AT TIME OF MONTHLY PEAK

Reporting Month MARCH

Megawatts	3,206	Day of Week	TUES	Day of Month	3	Hour of Peak	8:00

CURTAILMENT PRIORITY CLASSES	Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests	64	2	66	
Requests (MW)	19,393	366	19759	
Number of requests accepted	29	1	30	
Requests accepted (MW)	13,170	6	13176	
				Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery	6,223	360	6583	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

Reporting Month APRIL

Megawatts	2,860	Day of Week	MON	Day of Month	27	Hour of Peak	16:00

CURTAILMENT PRIORITY CLASSES	Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests	66	4	70	
Requests (MW)	19,777	381	20,158	
Number of requests accepted	28	1	29	
Requests accepted (MW)	13,229	15	13,244	
				Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery	6,548	366	6,914	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

FORM FE-T6: CONDITIONS AT TIME OF MONTHLY PEAK

Reporting Month MAY

		Day of Week	TUES	Day of Month	26	Hour of Peak	17:00
CURTAILMENT PRIORITY CLASSES				Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests				60	5	65	
Requests (MW)				19,190	393	19583	
Number of requests accepted				27	2	29	
Requests accepted (MW)				13,182	27	13209	
							Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery				6,008	366	6374	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

Reporting Month JUNE

		Day of Week	THUR	Day of Month	25	Hour of Peak	15:00
CURTAILMENT PRIORITY CLASSES				Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests				62	4	66	
Requests (MW)				19,708	401	20,109	
Number of requests accepted				30	1	31	
Requests accepted (MW)				13,732	35	13,767	
							Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery				5,976	366	6,342	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

FORM FE-T6: CONDITIONS AT TIME OF MONTHLY PEAK

Reporting Month JULY

Megawatts	3,607	Day of Week	THUR	Day of Month	16	Hour of Peak	16:00
CURTAILMENT PRIORITY CLASSES				Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests				60	9	69	
Requests (MW)				19,608	497	20105	
Number of requests accepted				28	4	32	
Requests accepted (MW)				13,632	31	13663	
							Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery				5,976	466	6442	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

Reporting Month AUGUST

Megawatts	4,018	Day of Week	MON	Day of Month	10	Hour of Peak	14:00
CURTAILMENT PRIORITY CLASSES				Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests				60	5	65	
Requests (MW)				19,608	406	20,014	
Number of requests accepted				28	1	29	
Requests accepted (MW)				13,632	30	13,662	
							Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery				5,976	376	6,352	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

FORM FE-T6: CONDITIONS AT TIME OF MONTHLY PEAK

Reporting Month SEPTEMBER

Megawatts	3,254	Day of Week	TUES	Day of Month	22	Hour of Peak	17:00
CURTAILMENT PRIORITY CLASSES				Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests				63	7	70	
Requests (MW)				19,959	396	20355	
Number of requests accepted				30	4	34	
Requests accepted (MW)				13,833	30	13863	
							Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery				6,126	366	6492	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

Reporting Month OCTOBER

Megawatts	2,590	Day of Week	MON	Day of Month	19	Hour of Peak	8:00
CURTAILMENT PRIORITY CLASSES				Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests				63	4	67	
Requests (MW)				19,829	374	20,203	
Number of requests accepted				31	1	32	
Requests accepted (MW)				13,852	8	13,860	
							Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery				5,977	366	6,343	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

FORM FE-T6: CONDITIONS AT TIME OF MONTHLY PEAK

Reporting Month NOVEMBER

Megawatts	2,794	Day of Week	THUR	Day of Month	30	Hour of Peak	19:00
CURTAILMENT PRIORITY CLASSES				Firm Transmission Service	Non-Firm Transmission Service	**Total**	
Number of Requests				63	4	67	
Requests (MW)				19,826	387	20213	
Number of requests accepted				31	1	32	
Requests accepted (MW)				13,850	21	13871	
							Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery				5,976	366	6342	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

Reporting Month DECEMBER

Megawatts	3,284	Day of Week	MON	Day of Month	10	Hour of Peak	21:00
CURTAILMENT PRIORITY CLASSES				Firm Transmission Service	Non-Firm Transmission Service	Total	
Number of Requests				63	4	67	
Requests (MW)				20,314	382	20,696	
Number of requests accepted				32	1	33	
Requests accepted (MW)				14,338	16	14,354	
							Reason for non-delivery
Requests not accepted (MW) and reason for not accepting delivery				5,976	366	6,342	Withdrawn/ Invalid/ Refused/ Declined/ Annulled/ Retracted

(C) The Existing Transmission System

(1) General Description - The Duke Energy-Ohio (DEO) transmission system above 125 kV consists of 138 kV and 345 kV systems. The 345 kV system generally serves to distribute power from the larger, base load generating units which are connected to the DEO transmission system, and to interconnect the DEO system with other systems. These interconnections enable the transmission of power between systems as required to meet the service area load requirements and they provide capacity for economy and emergency power transfers. The 345 kV system is connected to the 138 kV system through large transformers at a number of substations across the system. The 138 kV system distributes power received through the transformers and also from several smaller generating units which are connected directly at this voltage level. This power is distributed to substations which supply lower voltage sub-transmission systems, distribution circuits, or serve a number of large customer loads directly.

As of December 2009, the transmission system of DEO and its subsidiary companies consisted of approximately 403 circuit miles of 345 kV lines (including DEO's share of jointly owned transmission) and 724 circuit miles of 138 kV lines. Portions of the 345 kV transmission system are jointly owned with Columbus Southern Power (CSP) and/or Dayton Power & Light (DP&L).

(a) A summary of the characteristics of existing transmission lines are shown on the following forms FE-T7, Characteristics of existing Transmission lines. The forms are separated into several groups. The first group is of lines designed to operate at 138 kV. The second group is of wholly owned lines designed to operate at 345 kV. The remaining groups are of lines designed to operate at 345 kV which are jointly owned with other utilities. The line numbers correspond to those shown on the schematic diagrams and geographic maps of section 4901:5-5-04 (C)(2).

DUKE ENERGY OHIO
4901:5-5-04(C)(1)(a)
FORM FE-T7: CHARACTERISTICS OF EXISTING TRANSMISSION LINES

WHOLLY OWNED TRANSMISSION LINES DESIGNED FOR 138 KV OPERATIONS

CIRCUIT NO. DEO-A	LINE NAME	ORIGIN	TERMINUS	SUMMER CAPABILITY (MVA) NORMAL RATING	SUMMER CAPABILITY (MVA) EMERGENCY RATING	WINTER CAPABILITY (MVA) NORMAL RATING	WINTER CAPABILITY (MVA) EMERGENCY RATING	VOLTAGE (KV) OPER. LEVEL	VOLTAGE (KV) DESIGN LEVEL	R-O-W LENGTH (MILES)	WIDTH (FEET)	SUPPORTING STRUCTURES	NUMBER OF CIRCUITS	SUBSTATIONS ON THE LINE
GE4	Evendale-GE Ram Jet	Evendale	Tower No.	170	206	227	252	138	138	0.17	100	Steel Tower	1	
684	Elmwood-Lateral	Elmwood	Lateral											
	Section 1			226	275	302	336	138	138	1.34	100	Wood Pole	1	
	Section 2			226	275	302	336	138	138	2.37	100	Steel Tower	2	
689	Elmwood-Terminal	Elmwood	Terminal	261	318	349	389	138	138	1.40	100	Wood Pole	1	
885	Oakley-Red Bank	Oakley	Red Bank	282	343	377	421	138	138	1.09	100	Steel Tower	2	
886	Oakley-Beckjord	Oakley	Beckjord	282	343	377	421	138	138	16.45	100	Steel Tower	2	
1263	Mitchell-Brighton	Mitchell	Brighton	92	111	123	136	69	138	4.20	100	Steel Tower	2	
1269	Central-Ashland	Tower No. 37	Tower No. 58	98	98	122	122	69	138	3.43	100	Steel Tower	2	
1284	Mitchell-Terminal	Mitchell	Terminal	234	284	312	343	138	138	3.61	100	Steel Tower	2	Henkel Corp.
1286	Mitchell-West End	Mitchell	West End	230	280	309	343	138	138	8.18	100	Steel Tower	2	Cumminsville, Queensgate, Metro Sewer Dist.
1288	Mitchell-Ashland-Oakley	Mitchell	Oakley, Ashland											
	Section 1			230	280	309	343	138	138	1.30	100	Steel Tower	1	
	Section 2			230	280	309	343	138	138	7.33	100	Steel Tower	2	
1385	Charles-West End	Charles	West End	234	245	267	277	138	138	1.11	100	Underground	1	
1389	Charles-West End	Charles	West End	234	245	267	277	138	138	1.12	100	Underground	1	
1587	West End-Crescent	West End	Ohio/Ky. St. Line	226	275	302	336	138	138	0.30	100	Steel Tower	1	
1666	Miami Fort-Monsanto	Miami Fort	Tower No. 30	83	101	111	123	69	138	6.39	100	Steel Tower	2	
1681	Miami Fort-Greendale	Miami Fort	Ohio/Ind. St. Line	500	500	679	679	138	138	0.86	100	Steel Tower & Wood Pole	1	
1682	Miami Fort-Clifty Creek	Miami Fort	Ohio/Ky. St. Line	136	136	181	181	138	138	0.30	100	Wood H-Frame	1	
1688	Miami Fort-MFGT	Miami Fort	Miami Fort GT	226	275	302	336	138	138	0.34	100	Wood Pole	1	
1689	Miami Fort-Morgan	Miami Fort	Morgan	226	275	302	336	138	138	8.16	100	Steel Tower	2	
1762	Trenton-Terminal	Trenton	Terminal											
	Section 1			77	92	102	113	69	138	0.45	100	Steel Tower	1	
	Section 2			77	92	102	113	69	138	1.20	100	Wood Pole	1	
1782	Terminal-Glenview	Terminal	Glenview											
	Section 1			230	280	308	343	138	138	5.03	100	Steel Tower	2	
	Section 2			230	280	308	343	138	138	0.60	100	Wood H-Frame	1	
1783	Terminal-Ebenezer	Terminal	Ebenezer											
	Section 1			234	284	312	349	138	138	9.98	100	Steel Tower	2	
	Section 2			234	284	312	349	138	138	3.64	100	Wood Pole	1	
	Section 3			234	284	312	349	138	138	0.13	100	Wood H-Frame	1	Midway
1880	Beckjord-Silver Grove	Beckjord	Ohio/Ky. St. Line											
	Section 1			253	308	339	377	138	138	1.0	100	Wood Pole	1	
	Section 2			253	308	339	377	138	138	0.25	100	Steel Tower	2	
1881	Beckjord-Wilder	Beckjord	Ohio/Ky. St. Line	166	201	221	245	138	138	0.32	100	Steel Tower	2	
1885	Beckjord-Tobasco	Beckjord	Tobasco	282	343	377	421	138	138	5.84	100	Steel Tower	2	
1887	Beckjord-Pierce	Beckjord	Pierce	478	478	478	478	138	138	0.39	50	Wood Pole & Steel Tower	1	
1889	Beckjord-Pierce	Beckjord	Pierce	478	478	478	478	138	138	0.22	100	Steel Tower	1	
2156	Brighton-Wilder	Brighton	Ohio/Ky. St. Line	83	101	111	123	69	138	3.65	100	Steel Tower	2	
2381	Warren-Clinton County	Warren	Clinton County	170	206	227	252	138	138	16.32	100	Wood H-Frame	1	
2862	Miami Fort GT-Villa	Miami Fort GT	Ohio/Ky. St. Line	83	101	111	123	69	138	0.14	100	Steel Tower	2	
2865	Miami Fort GT-Monsanto	Miami Fort GT	Tower No. 30	113	137	151	168	69	138	6.39	100	Steel Tower	2	
2886	Cedarville-Ford	Cedarville	Ford											
	Section 1			253	308	339	378	138	138	5.02	100	Wood Pole	1	
	Section 2			253	308	339	378	138	138	4.86	100	Wood Pole	1	
3263	Trenton-Middletown Oxygen	Tower No.1	Tower No. 17	83	101	111	123	69	138	2.77	100	Steel Tower	1	
3281	Trenton-College Corner	Trenton	Ohio/Ind. St. Line	153	184	203	225	138	138	24.11	100	Steel Tower	2	Collinsville
3283	N/A	Structure 696	Structure 645A	170	206	227	252	138	138	3.94	90	Wood H-Frame		
3284	Trenton-Todhunter	Trenton	Todhunter	170	206	227	252	138	138	4.9	100	Wood H-Frame	1	
3881	Port Union-Summerside	Port Union	Summerside	170	206	227	282	138	138	22.74	100	Steel Tower	2	
3885	Port Union-Fairfield	Port Union	Fairfield	310	310	310	310	138	138	6.59	100	Steel Tower	2	Hall
3886	Port Union-Willey	Port Union	Willey	170	206	227	282	138	138	14.30	100	Steel Tower	2	Mulhauser
3887	Port Union-Todhunter	Port Union	Todhunter	304	304	390	390	138	138	9.69	100	Steel Tower	2	Millikin
3888	Port Union-Todhunter	Port Union	Todhunter	304	304	390	390	138	138	9.69	100	Steel Tower	2	Beckett
3889	Port Union-City of Hamilton	Port Union	City of Hamilton	253	308	339	377	138	138	4.65	100	Wood Pole	1	
4187	Lateral-Red Bank	Lateral	Red Bank	230	280	308	343	138	138	2.90	100	Steel Tower	2	

DUKE ENERGY OHIO
4901:5-5-04(C)(1)(a)
FORM FE-T7: CHARACTERISTICS OF EXISTING TRANSMISSION LINES

WHOLLY OWNED TRANSMISSION LINES DESIGNED FOR 138 KV OPERATION

CIRCUIT NO. DEO-A	LINE NAME	ORIGIN	TERMINUS	SUMMER CAPABILITY (MVA) NORMAL RATING	SUMMER CAPABILITY (MVA) EMERGENCY RATING	WINTER CAPABILITY (MVA) NORMAL RATING	WINTER CAPABILITY (MVA) EMERGENCY RATING	VOLTAGE (KV) OPER. LEVEL	VOLTAGE (KV) DESIGN LEVEL	R-O-W LENGTH (MILES)	WIDTH (FEET)	SUPPORTING STRUCTURES	NUMBER OF CIRCUITS	SUBSTATIONS ON THE LINE
4861	Ivorydale-Terminal	Tower No. 1	Tower No. 5	83	101	111	123	69	138	0.90	100	Steel Tower	2	
5381	Shaker Run-Rockies Express													
	Section 1	Structure 69B	Rockies Express	478	478	478	478	138	138	0.67	50	Steel Pole	1	
	Section 2	Rockies Express	Carlisle	287	287	287	287	138	138	10.58	50	Wood Pole	1	Carlisle, Union
5483	Foster-Port Union	Foster	Port Union											Dimmick, Montgomery
	Section 1			226	275	302	336	138	138	9.19	100	Steel Tower	2	Twenty Mile, Cornell
	Section 2			253	308	339	378	138	138	8.39	100	Wood Pole	1	Simpson, Socialville
5487	Foster-Remington	Foster	Remington											
	Section 1			253	308	339	378	138	138	13.40	100	Steel Tower	2	Montgomery
	Section 2			170	206	227	252	138	138	4.45	100	Wood Pole	1	
5489	Foster-Cedarville	Foster	Cedarville	253	308	339	378	138	138	12.23	100	Wood Pole	1	Obannonville
5484	Foster-Warren	Foster	Warren	253	308	339	378	138	138	8.70	100	Wood pole	1	Maineville
5666	Todhunter-Manchester	Tower No. 17	Tower No. 20	113	137	151	168	69	138	0.55	100	Steel Tower	1	
5667	Todhunter-Shaker Run	Todhunter	Structure 645A	83	101	111	123	69	138	5.14	100	Wood H-Frame	1	
5680	Todhunter-Warren	Todhunter	Warren	165	202	227	252	138	138	9.55	90	Wood H-Frame	1	Nickel
5682	Todhunter-AK Steel	Todhunter	AK Steel	300	300	300	300	138	138	2.34	100	Steel Tower	2	
5686	Todhunter-AK Steel	Todhunter	AK Steel											
	Section 1			300	300	300	300	138	138	2.34	100	Steel Tower	2	
	Section 2			170	206	227	252	138	138	0.33	100	Steel Tower	1	Dicks Creek
5689	Todhunter-Rockies Express	Structure 69B	Rockies Express	478	478	478	478	138	138	0.63	50	Steel Pole	1	
5781	Fairfield-City of Hamilton	Fairfield	City of Hamilton	253	308	339	378	138	138	6.05	100	Wood Pole	1	
5783	Fairfield-Morgan	Fairfield	Morgan	166	201	221	245	138	138	16.50	100	Steel Tower	2	
5884	Brown-Eastwood	Brown	Eastwood	253	308	339	378	138	138	13.00	100	Wood H-Frame	1	
5886	Brown-Stuart	Brown	Stuart	234	285	213	349	138	138	21.16	100	Wood H-Frame	1	
5985	Wilder-West End	Ohio/Ky. St. Line	West End	253	287	339	351	138	138	0.20	100	Steel Tower	2	
5988	Wilder-Beckjord	Ohio/Ky. St. Line	Beckjord	226	275	302	336	138	138	0.37	100	Steel Tower	2	
6365	Tobasco-Markley	Pole No. 601	Markley	83	101	111	122	69	138	1.70	100	Wood Pole	1	
6985	Ebenezer-Miami Fort	Ebenezer	Miami Fort											
	Section 1			228	280	313	350	138	138	10.26	100	Steel Tower	2	
	Section 2			226	275	302	336	138	138	4.92	100	Wood Pole	1	
6984	Summerside-Beckjord	Summerside	Beckjord	310	310	310	310	138	138	10.44	100	Steel Tower	2	Clermont
7086	Crescent-Miami Fort	Ohio/Ky. St. Line	Miami Fort	204	248	273	303	138	138	0.13	100	Steel Tower	2	
7284	Glenview-Miami Fort	Glenview	Miami Fort											
	Section 1			230	248	308	342	138	138	0.60	100	Wood H-Frame	1	
	Section 2			230	280	308	342	138	138	15.07	100	Steel Tower	2	Kleeman
	Section 3			185	224	246	273	138	138	0.12	100	Wood H-Frame	1	Midway
7481	Red Bank-Terminal	Red Bank	Terminal	344	423	463	518	138	138	9.10	100	Wood Pole	1	Deer Park
7484	Red Bank-Ashland	Red Bank	Ashland											
	Section 1			240	300	240	300	138	138	0.96	100	Steel Tower	2	
	Section 2			240	300	240	300	138	138	0.12	100	Wood Pole	1	
	Section 3			240	300	240	300	138	138	4.24	100	Underground	1	
7489	Red Bank-Tobasco	Red Bank	Tobasco											
	Section 1			282	344	378	421	138	138	9.64	100	Steel Tower	2	
	Section 2			282	344	378	421	138	138	0.07	100	Wood Pole	1	
8283	Rochelle-Charles	Rochelle	Charles	269	282	307	318	138	138	2.38	100	Underground	1	
8286	Rochelle-Terminal	Rochelle	Terminal											
	Section 1			234	287	307	318	138	138	3.56	100	Steel Tower	2	
	Section 2			234	287	307	318	138	138	1.25	100	Wood Pole	1	
	Section 3			234	282	307	318	138	138	1.32	100	Underground	1	
8481	Eastwood-Ford	Eastwood	Ford											
	Section 1			253	308	339	378	138	138	4.97	100	Wood Pole	1	
	Section 2			253	308	339	378	138	138	1.50	100	Wood Pole	1	
8887	Hillcrest-Eastwood	Hillcrest	Eastwood	306	306	382	382	138	138	9.63	50	Wood pole	1	So. Cent Pwr Eastwood
9482	Remington-Beckjord	Remington	Beckjord	310	310	310	310	138	138	19.08	100	Steel Tower	2	Feldman, Wards Corner
9784	Willey-Miami Fort	Willey	Miami Fort	176	206	227	252	138	138	14.95	100	Steel Tower	2	
9787	Willey-Terminal	Willey	Terminal											
	Section 1			226	275	302	336	138	138	5.68	100	Wood H-Frame	1	Mapleknoll
	Section 2			226	275	302	336	138	138	11.71	100	Wood Pole	1	Mt. Healthy, Finneytown
	Section 3			226	275	302	336	138	138	0.50	100	Steel Tower	2	
13803	Hutchings-College Corner													
	Section 1	Structure 1101	Trenton	170	206	227	252	138	138	4.91	100	Wood H-Frame	1	
	Section 2	Trenton	Tower 129	170	206	227	252	138	138	24.06	100	Steel Tower	2	

DUKE ENERGY OHIO
4901:5-5-04(C)(1)(a)
FORM FE-T7: CHARACTERISTICS OF EXISTING TRANSMISSION LINES

WHOLLY OWNED TRANSMISSION LINES DESIGNED FOR 345 KV OPERATION

CIRCUIT NO. DEO-B	LINE NAME	ORIGIN	TERMINUS	SUMMER CAPABILITY (MVA) NORMAL RATING	SUMMER CAPABILITY (MVA) EMERGENCY RATING	WINTER CAPABILITY (MVA) NORMAL RATING	WINTER CAPABILITY (MVA) EMERGENCY RATING	VOLTAGE (KV) OPER. LEVEL	VOLTAGE (KV) DESIGN LEVEL	R-O-W LENGTH (MILES)	WIDTH (FEET)	SUPPORTING STRUCTURES	NUMBER OF CIRCUITS	SUBSTATIONS ON THE LINE
04	Miami Fort-Tanners Creek	Miami Fort	Ohio/Ky. St. Line	717	824	717	824	345	345	0.32	150	Steel Tower	2	
08	Port Union-Foster	Port Union	Foster											
	Section 1			1195	1315	1195	1315	345	345	11.65	150	Steel Tower	2	
	Section 2			1195	1315	1195	1315	345	345	0.24	150	Steel Tower	1	
13	Terminal-Port Union	Terminal	Port Union											
	Section 1			1195	1315	1195	1315	345	345	0.46	150	Steel Tower	1	
	Section 2			1195	1315	1195	1315	345	345	9.65	150	Steel Tower	2	
14	Miami Fort-Terminal													
	Section 1	Terminal	Ohio/Ky. St. Line	1195	1315	1195	1315	345	345	14.84	150	Steel Tower	2	
	Section 2	Miami Fort	Ohio/Ky. St. Line	1195	1315	1195	1315	345	345	0.32	150	Steel Tower	2	
15	Foster-Todhunter	Foster	Todhunter	1195	1315	1195	1315	345	345	15.79	150	Steel Tower	2	
16	East Bend-Terminal	Ohio/Ky. St. Line	Terminal	1195	1315	1195	1315	345	345	14.84	150	Steel Tower	2	
62	Woodsdale-Todhunter	Woodsdale	Todhunter	1195	1315	1195	1315	345	345	4.68	150	Steel Tower	2	
1883	Beckjord-Red Bank	Beckjord	Red Bank											
	Section 1			282	344	378	421	138	345	0.89	150	Steel Tower	1	
	Section 2			282	344	378	421	138	345	13.82	150	Steel Tower	2	Newtown
4683	Evendale-Port Union	Evendale	Port Union											
	Section 1			344	423	463	518	138	345	0.52	150	Steel Tower	1	
	Section 2			344	423	463	518	138	345	5.48	150	Steel Tower	2	Kemper
4685	Evendale-Terminal	Evendale	Terminal											
	Section 1			382	382	382	382	138	345	0.21	150	Steel Tower	1	
	Section 2			382	382	382	382	138	345	4.02	150	Steel Tower	2	
5381	Shaker Run-Rockies Express	Structure 69A	Rockies Express	478	478	478	478	138	345	2.62	150	Steel Tower	2	
5485	Foster-Shaker Run	Foster	Shaker Run	259	314	345	385	138	345	10.29	150	Steel Tower	2	Park, Bethany
5689	Todhunter-Rockies Express	Todhunter	Structure 69B	478	478	478	478	138	345	6.44	150	Steel Tower	2	
7481	Red Bank-Terminal	Red Bank	Terminal											
	Section 1			344	423	463	518	138	345	5.72	150	Steel Pole	2	Golf Manor
	Section 2			226	274	302	336	138	345	0.90	150	Steel Tower	2	Cooper

DUKE ENERGY OHIO
4901:5-5-04(C)(1)(a)
FORM FE-T7: CHARACTERISTICS OF EXISTING TRANSMISSION LINES

COMMONLY OWNED TRANSMISSION - DEO, CSP AND DP&L COMPANIES
TENANTS IN COMMON WITH UNDIVIDED OWNERSHIP, TOTAL MILEAGE GIVEN

CIRCUIT NO. CCD-B	LINE NAME	ORIGIN	TERMINUS	SUMMER CAPABILITY (MVA) NORMAL RATING	SUMMER CAPABILITY (MVA) EMERGENCY RATING	WINTER CAPABILITY (MVA) NORMAL RATING	WINTER CAPABILITY (MVA) EMERGENCY RATING	VOLTAGE (KV) OPER. LEVEL	VOLTAGE (KV) DESIGN LEVEL	R-O-W LENGTH (MILES)	WIDTH (FEET)	SUPPORTING STRUCTURES	NUMBER OF CIRCUITS	SUBSTATIONS ON THE LINE
01	Beckjord-Pierce	Beckjord	Pierce	500	500	500	500	345	345	0.32	150	Steel Tower	1	
02	Pierce-Foster	Pierce	Foster											
	Section 1			1195	1315	1195	1315	345	345	23.38	150	Steel Tower	2	
	Section 2			1195	1315	1195	1315	345	345	0.57	150	Steel Tower	1	
03	Sugarcreek-Greene	Sugarcreek	Greene	1195	1315	1195	1315	345	345	8.30	150	Steel Tower	1	
06	Greene-Beatty	Greene	Beatty											
	Section 1			1195	1315	1195	1315	345	345	3.66	150	Steel Tower	2	
	Section 2			1195	1315	1195	1315	345	345	45.34	150	Steel Tower	1	
07	Marquis-Bixby	Marquis	Bixby											
	Section 1			1195	1315	1195	1315	345	345	63.16	150	Steel Tower	1	
	Section 2			1195	1315	1195	1315	345	345	8.52	150	Steel Tower	2	
09	Stuart-Greene	Stuart	Greene	1195	1315	1195	1315	345	345	80.38	150	Steel Tower	1	
10	Stuart-Killen	Stuart	Killen Tap	1195	1315	1195	1315	345	345	13.13	150	Steel Tower	1	
11	Stuart-Hillcrest	Stuart	Hillcrest	1255	1374	1255	1374	345	345	32.61	150	Steel Tower	1	
24	Foster-Sugarcreek	Foster	Sugarcreek	1257	1554	1745	1947	345	345	27.33	150	Steel Tower	2	
31	Beatty-Bixby	Beatty	Bixby											
	Section 1			1042	1338	1042	1338	345	345	4.69	150	Steel Tower	1	
	Section 2			1042	1338	1042	1338	345	345	8.52	150	Steel Tower	2	
33	Kirk-Corridor	Kirk	Corridor	1302	1673	1302	1673	345	345	18.36	150	Wood H-Frame	1	
40	Conesville-Hyatt	Conesville	Hyatt											
	Section 1			1195	1374	1195	1374	345	345	66.07	150	Steel Tower	1	
	Section 2			1195	1374	1195	1374	345	345	1.78	150	Wood Pole	1	
	Section 3			1195	1374	1195	1374	345	345	0.48	150	Wood H-Frame	1	
41	Spurlock-Zimmer	Ohio/Ky. St. Line	Zimmer											
	Section 1			1195	1315	1195	1315	345	345	31.77	150	Steel Tower	1	
	Section 2			1195	1315	1195	1315	345	345	0.78	150	Steel Tower	2	
42	Atlanta-Beatty	Atlanta	Beatty											
	Section 1			1042	1281	1042	1281	345	345	3.68	150	Steel Tower	2	
	Section 2			1042	1281	1042	1281	345	345	25.22	150	Steel Tower	1	
43	Conesville-Bixby	Conesville	Bixby											
	Section 1			1195	1374	1195	1374	345	345	14.87	150	Steel Tower	2	
	Section 2			1195	1374	1195	1374	345	345	50.86	150	Wood H-Frame	1	
44	Zimmer-Port Union	Zimmer	Port Union											
	Section 1			1195	1315	1195	1315	345	345	35.88	150	Steel Tower	2	
	Section 2			1195	1315	1195	1315	345	345	10.03	150	Steel Tower	1	
45	Zimmer-Red Bank													
	Section 1	Zimmer	Ohio/Ky. St. Line	1264	1538	1264	1538	345	345	0.43	150	Steel Tower	1	
	Section 2	Red Bank	Tower No. 24	1195	1315	1195	1315	345	345	10.58	150	Steel Tower	2	
	Section 3	Tower No. 23	Ohio/Ky. St. Line	1195	1315	1195	1315	345	345	0.80	150	Steel Tower	1	
46	Red Bank-Terminal	Red Bank	Terminal											
	Section 1			1195	1315	1195	1315	345	345	5.75	150	Steel Pole	2	
	Section 2			1195	1315	1195	1315	345	345	0.90	150	Steel Tower	2	
47	Bixby-Kirk	Bixby	Kirk											
	Section 1			1302	1673	1302	1673	345	345	14.87	150	Steel Tower	2	
	Section 2			1302	1673	1302	1673	345	345	4.20	150	Wood H-Frame	1	
49	Killen-Marquis	Killen Tap	Marquis	1195	1315	1195	1315	345	345	32.01	150	Steel Tower	1	
52	Stuart-Atlanta	Stuart	Atlanta	1195	1315	1195	1315	345	345	65.00	150	Steel Tower	1	
69	Hillcrest-Foster	Hillcrest	Foster	1551	1551	1793	1793	345	345	26.36	150	Steel Tower	1	
93	Spurlock-Stuart	Ohio/Ky. St. Line	Stuart	1195	1315	1195	1315	345	345	10.86	150	Steel Tower	1	