There are two databases:

- FERC Survey and DR Programs
- AMI Analysis Data Set 2008

These databases use a relational database format in Microsoft Access (.mdb). In addition, the queries for each of the two surveys are also posted as Microsoft Excel spreadsheets (.xls). AMISurveyResponses.xls contains query data from AMI Analysis Data Set 2008. Entity_DR_Programs.xls and Respondent_Entity_Information contain query data from FERC Survey and DR Programs.

**FERC survey and DR Programs**

Tables in this database include

- **DR_Programs** – This is the list of all DR Programs
- **EIA_Entity** – This table contains all the EIA number, region, state, and order number. This forms the unique identifier for each entry
- **EIARegion_State** – This table contains the EIA number, region and state
- **EIA_Table** – This contains a listing of all EIA numbers and the entity name associated with the number.
- **Entity_Programs** – This table contains the EIA number, region, state, order number, and program ID. This forms the unique identifier for the DR Programs.
- **Region_State** – This table contains the relationship between the Regions and the states associated with each region
- **Regions** – This is a list of the NERC regions and Hawaii
- **Responses** – this table contains the responses given by entities based on their filing order
- **States** – This table contains a listing of all the 50 states and DC

**Relationships between the tables**

The EIA_Entity table forms the unique identifier for each response given by an entity for the DR Programs. The Entity_Programs table forms the unique identifier for all programs listed by the entities. These two tables form the “hub” for all other tables to connect to in some form. The EIA_Entity connects the EIA number, the region, the state and the filing order number; while the Entity_Programs table includes the program ID number.

The relationships between the tables is seen in figure 1
Figure 1: Relationships between DR Tables

**Description of fields in DR_Programs table**

- **Program_Id**: ID field for program
- **CustClass**: entity class
- **Nbr Cust in Class**: number of customers
- **Class Total MW**: total MW for entity’s class
- **Pgm Name**: name of program
- **Pgm Desc**: description of program
- **Nbr Cust Enrolled**: number of enrolled customers
- **MW Cust Enrolled**: maximum demand of enrolled customers, 2007
- **Potential Peak Red**: potential peak reduction in 2007 in MW
- **Actual Peak Red**: actual peak reduction in 2007 in MW
- **Potential MWh chg**: potential MWh change attributed to program in 2007
- **Actual MWh chg**: actual MWh change attributed to program in 2007
- **Excluded other DR pgms**: are participants excluded from taking part in other DR programs?
- **Mandatory**: is participation mandatory?
- **Voluntary**: is participation voluntary?
- **Ancillary**: does the program include ancillary services?
- **CAP**: does the program include capacity market programs?
- **CPP**: does the program include critical peak pricing?
- **CPR**: does the program include critical peak rebate?
- **DB**: does the program include demand bidding?
DLC does the program include direct load control?
EDRP does the program include emergency demand response program?
IC does the program include interruptible and curtailable?
RTP or hourly does the program include real time or hourly pricing?
TOU does the program include time-of-use?
Other other program type, if applicable
Other Desc description of other program type
Min Pymt Rate ($/MWh) minimum payment rate (wholesale programs)
Min Duration (hrs) minimum duration of event (wholesale programs)
Max Duration (hrs) maximum duration of event (wholesale programs)
Event Limit (#) number of specific event limits
Bid Limit ($/MWh) maximum bid that can be submitted
Pgm Start Date program start date
Pgm End Date program end date
Min term (yrs) minimum length in years that customers are obligated to participate
Penalties are participants ever charged penalties?
ICAP is there an ICAP credit associated with the program?

**Description of fields in Responses table**

<table>
<thead>
<tr>
<th>Order</th>
<th>EIA-1</th>
<th>Name-1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EIA numbers for all affiliated entities</td>
<td>name of entity/organization for all affiliated entities</td>
</tr>
<tr>
<td></td>
<td>“</td>
<td>“</td>
</tr>
<tr>
<td></td>
<td>“</td>
<td>“</td>
</tr>
<tr>
<td></td>
<td>“</td>
<td>“</td>
</tr>
<tr>
<td></td>
<td>“</td>
<td>“</td>
</tr>
<tr>
<td></td>
<td>“</td>
<td>“</td>
</tr>
<tr>
<td></td>
<td>“</td>
<td>“</td>
</tr>
<tr>
<td></td>
<td>“</td>
<td>“</td>
</tr>
<tr>
<td></td>
<td>“</td>
<td>“</td>
</tr>
<tr>
<td></td>
<td>“</td>
<td>“</td>
</tr>
<tr>
<td></td>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EIA-2</th>
<th>Name-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EIA-3</th>
<th>Name-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EIA-4</th>
<th>Name-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EIA-5</th>
<th>Name-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EIA-6</th>
<th>Name-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EIA-7</th>
<th>Name-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EIA-8</th>
<th>Name-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EIA-9</th>
<th>Name-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EIA-10</th>
<th>Name-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State-1</th>
<th>State-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>states for which entity is reporting</td>
<td></td>
</tr>
<tr>
<td>“</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State-2</th>
<th>“</th>
</tr>
</thead>
<tbody>
<tr>
<td>State-3</td>
<td>“</td>
</tr>
<tr>
<td>State-4</td>
<td>“</td>
</tr>
<tr>
<td>State-5</td>
<td>“</td>
</tr>
<tr>
<td>State-6</td>
<td>“</td>
</tr>
<tr>
<td>State-7</td>
<td>“</td>
</tr>
<tr>
<td>State-8</td>
<td>“</td>
</tr>
<tr>
<td>State-9</td>
<td>“</td>
</tr>
<tr>
<td>State-10</td>
<td>“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nbr Res Cust</th>
<th>number of residential customers</th>
</tr>
</thead>
</table>

Nbr Com Cust number of commercial customers
Nbr Ind Cust number of industrial customers
Nbr Trans Cust number of transportation customers
Nbr Other Cust number of other customers
Total Cust number of total customers
Res Peak MW peak MW of residential demand for 2007
Com Peak MW peak MW of commercial demand for 2007
Ind Peak MW peak MW of industrial demand for 2007
Trans Peak MW peak MW of transportation demand for 2007
Other Peak MW peak MW of other demand for 2007
System Peak MW peak MW of total demand for 2007
Notes notes
Ownership type of entity (municipal, coop, IOU, etc.)
No of Programs Res number of residential DR programs
No of Programs Com number of commercial DR programs
No of Programs Ind number of industrial DR programs
No of Programs Trans number of transportation DR programs
No of Programs Others number of other DR programs
No of Programs Wsale number of wholesale DR programs

Additional information on the 2008 Demand Response survey, including a glossary of terms and an electronic copy of the survey, can be found at


Queries

There are two queries in this database. Entity_DR_Programs combines entity-specific information such as name, number and region with the demand response programs that each entity reported. Respondent_Entity_Information provides the entity information along with its customer counts by class and peak MW of demand by customer class.

The field names in the queries match those in the tables from which they are pulled, and are otherwise self-explanatory.
AMI Analysis Dataset 2008

Tables in this database include

- AMI Filing – This is the list of all the AMI Filing order numbers
- AMI Survey Responses – Attaches a response ID to an AMI Filing order number
- AMI_Filing_Responses – Attaches an Entity, its region, state and filing order with a response ID
- EIA_and_Name - Lists the company’s EIA number and Name. Each listing is unique.
- EIA_NameRegion_State – Lists the EIA number, Name, Region and State. This helps to build the unique identifier for each response given.
- GI Filing – this is the same as the AMI Filing. The only difference is that this table lists the filings for General Information
- GI Survey Responses – Serves the same purpose as the AMI Survey Responses. This table deals with the General Information
- GI_Filing_Responses – corresponds to the AMI_Filing_Responses table, but with General Information
- NERC_Regions – This table lists the NERC Regions
- States – This table contains a listing of all 50 US states, DC, and Virgin Islands (VI)
- State_Regions – This table links the regions with their respective States
- SurveyResponses – This is the compilation of responses to the survey. Each response has a unique identifier.

Relationships between the tables

AMI_Filing_Responses table forms the unique identifier for each response given by an entity for the AMI Database. Just as in the DR database, this table forms the “hub” for all other tables to connect to in some form. The AMI_Filing_Responses connects the EIA number, the region, the state and the filing order number. The GI_Filing_Responses table forms the unique identifier for the General Information entities in the AMI Database.

The relationships between the tables is seen in figure 2
Description of fields in SurveyResponses table

- **ResponseID**: unique response ID
- **EIA**: EIA code for entity
- **Region**: applicable regional council
- **State**: applicable state
- **Q2EName1**: name of entity
- **Entity Type**: type of entity submitting response to survey
- **Size**: size of entity
- **Q5-MultRegion**: list of multiple regional councils associated with data, if applicable
- **Q6-OwnMeters?**: does the entity own or control billing or revenue meters?
- **Q7-ResMeters**: number of residential meters
- **Q7-ComMeters**: number of commercial meters
- **Q7-IntMeters**: number of industrial meters
- **Q7-TransMeters**: number of transportation meters
- **Q7-OtherMeters**: number of other meters
- **Q7 - total meters**: total number of meters
- **Q8-15Min-ResAMI**: residential meters, interval data collected 15 minutes or less
- **Q8-15Min-ComAMI**: commercial meters, interval data collected 15 minutes or less
- **Q8-15Min-IndAMI**: industrial meters, interval data collected 15 minutes or less
Q8-15Min-TransAMI: transportation meters, interval data collected 15 minutes or less
Q8-15Min-OtherAMI: other meters, interval data collected 15 minutes or less
Q8-15Min-TotalAMI: total meters, interval data collected 15 minutes or less
Q8-Hourly-ResAMI: residential meters, interval data collected more than 15 minutes but in no more than hourly intervals
Q8-Hourly-ComAMI: commercial meters, interval data collected more than 15 minutes but in no more than hourly intervals
Q8-Hourly-IndAMI: industrial meters, interval data collected more than 15 minutes but in no more than hourly intervals
Q8-Hourly-TransAMI: transportation meters, interval data collected more than 15 minutes but in no more than hourly intervals
Q8-Hourly-OtherAMI: other meters, interval data collected more than 15 minutes but in no more than hourly intervals
Q8-Hourly-TotalAMI: total meters, interval data collected more than 15 minutes but in no more than hourly intervals
Q9-AMISystem?: has entity implemented advanced metering system?
Q9-Other: other information provided by entity
Q10-AMIFunctions: list of functions currently utilized by entity
Q10-OtherFunctions: additional functions identified by entity
Q11-Comments: additional comments provided by entity

Flags for specific functions identified in Q10 [if included, “1” in the field]
- Remotely change metering parameters
- Remotely upgrade firmware
- Outage detection
- Outage restoration
- Outage mapping
- Pre-pay
- Remote connect/disconnect
- Load forecasting
- Theft detection and other line losses
- Price responsive demand response
- Enhanced customer service
- Asset management
- Home area network
- Interface with gas or water meters
- Pricing/event notification
- Power Quality
- Other

Region key: region
Year filed: 2008

Query

AMISurveyResponses aggregates the survey response information with the entity name, EIA number, NERC region, state and filing order for each of the records in the database. The field names in the query match those in the tables from which they are pulled, and are otherwise self-explanatory.