

Atlantic Gas & Electric Case Study

You're working on a data warehouse project with Atlantic Gas & Electric. Based on business requirements and priorities, Electricity Customer Billing is the initial focus.

- ❑ The Reporting and Analysis department supports internal management reporting and Public Utilities Commission (PUC) requests for information. In this rapidly changing energy market, they want to slice usage and billing data by almost all available attributes.
- ❑ Capacity Planning forecasts future demand. They want historical kilowatt hours (KWHs) by customer subsets to understand electricity usage changes over time. They also need to view usage by geographic entity down to the individual location. They'd like to map this information to determine the optimal placement of new generation facilities.

Business Rules:

- A customer has one or more locations; a location has one or more meters. Customers, locations and meters are often analyzed as independent entities. Locations and meter attributes don't change in a meaningful way, but some customer attribute changes are important.
- The rate schedule changes yearly – sometimes more often when special rate changes are approved by the PUC. Keeping track of historic rates is important to understanding the relationship between rates and usage.
- The CUST_BILL table is generated based on the METER_READINGS table. When the bill is actually printed, the customer is determined by looking up the meter's location, then the location's customer.
- The operational Customer Billing System calculates the actual electric energy charges and appropriate ancillary charges. The PUC Surcharge is currently \$0.10 per KWH. Energy Commission Tax is currently 2.5% of the actual electric energy charge. The total bill amount is the sum of the electric energy charge, PUC surcharge, and energy commission tax.
- Most of the bills that come out of the billing system are regular monthly electricity bills. However, the billing system also generates bills for other services, like new meter installations, temporary service setups and energy audits.
- All source system tables shown are "current" tables.

MTR_TP_LU	MTR_MSTR	LOC_MTRS	LOC_TYPE
MTR_TP_ID	MTR_SN	LOC_KEY	LOC_TP
DESCR	MFG_DT	MTR_SN	DSCR
MTR_CLS_ID	MTR_TP_ID	ACT_DATE	
	MFRGR	DEACT_DATE	
		EFF_DATE	
		END_DATE	
		STATUS	

MTR_CLS_LU	STATUS	LOC_MSTR
MTR_CLS_ID	STATUS_KEY	LOC_KEY
DESCR	DESCR	LOC_TP
		LOC_CD
		RT_SCHED
		ADDR1
		ADDR2
		ADDR3
		CITY
		STATE
		ZIP
		SIC_CD
		CMNT
		ROB

CUST_TP_MST	CUST_MAST	CUST_LOCS
CUST_TP	CUST_ID	CUST_ID
DSC	NAME	LOC_KEY
	CONTACT_NAME	EFF_DATE
	CUST_PHN	END_DATE
	ADDR1	STATUS
	ADDR2	
	ADDR3	
	CITY	
	STATE	
	ZIP	
	CUST_TYPE	
	BILL_CYCLE_ID	

CUST_BILLS	RATE_SCHED
BILL_NUM	RT_SCD_CD
METER_SN	DESC
BILL_DT	LVL_1_RT
READ_DT	LVL_1_LIMIT
READING	LVL_2_RT
TRAN_TYPE	LVL_2_LIMIT
BILL_DAYS	
KWH	
PUC_SCHG	
ENRGY_COM_TAX	
BILL_AMT	
BATCH_DT	

METER_READINGS	EMPLOYEE	TRANS_TYPE
DATE_TIME	EMP_ID	TRAN_TYPE_ID
METER_SN	HIRE_DT	DESCR
READING	NAME	
EMP_ID	ORG_ID	

Source Group: Corp. Data Admin
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