Why Electric Utilities Need Load Research

A Load Research Primer For Electric Utility Leaders
What is Load Research?

By Definition:
An activity embracing the measurement and study of the characteristics of electric loads to provide a thorough & reliable knowledge of trends, and general behavior of the load characteristics of the customers serviced by the electrical industry.

Simply put:
Load Research allows utilities to study the ways their customers use electricity, either in total or by individual end uses.

Requires the talents of many disciplines including engineering, statistics, computer programming, and marketing.
Load Research Mission

To build the foundation that allows the corporation to leverage knowledge of electric customer energy use patterns to enhance or protect shareholder value.
The Corporation Depends On Load Research Products

**Generation**
- Net System Output analysis
- Model Development
- Capacity Planning
- Load Duration Curves

**Rates/Pricing**
- 8760 Class Demand Studies
- Billing Determinants
- Allocation Schedules
- Sample Design & Management
- Class & System Peak Analysis
- Major Account Demand Analysis

**Electric Choice**
- Load Profiling
- Forecasting
- Settlement
- Evaluation

**Distribution**
- Substation Load Analysis
- Transformer Sizing
- Circuit Load Studies
- Load Management
- Loss Studies

**Marketing**
- Individual Customer Analysis
- Class Analysis
- On/Peak Demand
- Load Studies
- Demographic Studies
- Major Account Demand Analysis

**Other**
- DSM
- Weather Normalization
- Product Development
Most Public Service Commissions require that rate case Cost-of-Service studies are based on Load Research demand allocations.

To satisfy this requirement you can:

- Rely on the accuracy of your own load research
- Or
- Rely on borrowed/purchased load research data which may or may not reflect your customers usage characteristics and the age of the data may be unknown or very old and unreliable.

When the corporate financial future is on the line, which one would your prefer?
Load Research provides the timely & precise load information critical to successfully achieve retail access for our customers.

Load Research hourly estimates (profiles) are the basis for:

- Reporting Hourly Supplier Loads & peak contributions to ISO’s
- Supplier scheduling
- Market Settlements

And Require:

- Hourly analysis, loss adjustments & delivery reconciliation
- Methodologies and accuracy that meet PSC & supplier scrutiny
- Timely posting of data to fulfill supplier requirements

Interval data collected and prepared by Load Research is the recognized standard for Retail Access programs throughout the United States.
Rate cases are not an annual occurrence, but Load Research Core Products continually add corporate value both financially and strategically. Knowledge of your customer equates to shareholder value.

**List of Value Adding Core Products:**

Each Load Research Manager can customize this list to their groups product list. Examples include: cost-of-service, allocation schedules, billing determinants, transformer sizing, rate development, load management, class evaluation, sample design and measurement, 8760 analysis, industrial customer demand analysis, profiling, settlement, UFE analysis, etc.
Load Research Value Contribution — This is the portion of a measurable event that either increases corporate revenue or creates a real savings. Both are adding measurable value.

Example: Load Research developed allocation schedules used for cost-of-service, produced 8760 class analysis, developed billing determinants, and provided an expert witness for a rate case filing. As a result, 2% of the success and final outcome of the case is directly assignable to Load Research.

<table>
<thead>
<tr>
<th>Rate Case Final Order</th>
<th>$100 M</th>
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<tr>
<td>Success attributed to Load Research</td>
<td>X 2%</td>
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<td>$ 2 M  Load Research Value</td>
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If you eliminate Load Research it will take years to re-establish at considerable costs and likely loss of shareholder value.

*Remember the famous melody:*

“You don’t know what you’ve got ‘till it’s gone”
Want to know more?

The Manager of your Load Research organization is a highly skilled professional with specialized training in the field of Load Research.

Contact them for more details on the activities and value Load Research is currently adding to your corporation.

-or-

Contact the AEIC Office at 205-257-2530

-or-

Contact the National Load Research Committee Chairperson

See current committee chair & members at www.aeic.org