Schumaker & Company

# Jersey Central Power and Light

## Introduction

June 2011

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# I. Introduction

This chapter represents a summary introduction and results of the audit of the affiliated transactions between Jersey Central Power and Light Company (JCP&L) and its affiliates, and a comprehensive management audit of Jersey Central Power and Light Company completed by Schumaker & Company in 2011 on behalf of the New Jersey Board of Public Utilities (NJBPU). It includes a summary of recommendations and their respective priorities, JCP&L and FirstEnergy Corporation (FE) background information, and 2005 to 2009 annual statistics for JCP&L. The remaining report chapters contain a discussion of our findings, conclusions, and recommendations for each discrete area of review within the scope of the audit. They include:

- Phase I
  - Chapter II – Energy Procurement and Purchasing
  - Chapter III – Affiliated Relationships and Affiliate Allocation Methodologies
  - Chapter IV – Market Conditions
  - Chapter V – Review of Prior Audit Recommendations
  - Chapter VI – Remediation Costs
- Phase II
  - Chapter VII – Executive Management and Corporate Governance
  - Chapter VIII – Finance and Accounting
  - Chapter IX – Electric Operations
  - Chapter X – Customer Service
  - Chapter XI – Clean Energy
  - Chapter XII – Support Services

These chapters provide the detailed facts and analyses that support, and provide context for, the recommendations we have made. The findings and recommendations contained in this audit report are the findings and recommendations of the consultant only and are not necessarily agreed to by JCP&L or NJBPU.

## A. Summary of Recommendations

To assist JCP&L management in developing implementation plans, each recommendation has been assigned a priority of "high," "medium," or "low" according to the following criteria:

- *High* – Designated recommendations are high priority because of their importance and urgency. These represent significant benefit potential, major improvements to service, or substantial improvements to methods or procedures.
- *Medium* – Designated recommendations are of medium priority. In some instances, the implementation of these recommendations is expected to provide moderate improvements in profitability of operations, or management methods and performance. In other instances, implementation may provide significant longer-term benefits which are less predictable.
- *Low* – Designated recommendations reflect a lower priority. In many instances, they should be studied further or implemented sometime during the next few years. Potential benefits are perceived to be either modest or difficult to measure.

*Exhibit I-1* summarizes the priority totals for each audit phase.

**Exhibit I-1**
**Summary of Priority Totals**

| | High | Medium | Low |
|---|---|---|---|
| Phase I | 7 | 6 | 4 |
| Phase II | 15 | 39 | 14 |
| **Total** | **22** | **45** | **18** |

In many recommendations, it is not possible or practical at this time to measure "quantitative" benefits. The benefits associated with these recommendations fall primarily into four categories:

- Reduction in actual costs of operations within a JCP&L area
- Increase in a revenue source within a JCP&L area
- Change in work flow processes used in the provision of services to JCP&L customers on a more effective or efficient basis
- Change in other processes resulting in good business practices being implemented

Particularly in instances where a new management practice or procedure is recommended (where one either did not exist or was not fully implemented), it may be difficult to estimate the actual benefit to be derived. It is believed, however, that the overall benefit will be improved effectiveness and efficiency of the specified JCP&L area. Additionally, qualitative benefits may occur that cannot be easily quantified.

They could include improved effectiveness and efficiency in operations, increased customer satisfaction, additional cost savings, increased revenues, etc. It should also be noted that, because it is not possible in all instances to estimate expected benefits prior to implementation, any implementation plan should include a reliable measurement tool to track benefits after implementation.

Quantifiable benefits (increased revenues or additional cost savings) have been provided in our report chapters where they could be estimated. This quantification is subject to some judgment and would require additional effort beyond the scope of this review to refine the estimates. The actual benefits from these recommendations are, therefore, subject to a degree of uncertainty. For other recommendations the benefits to be derived are of a more qualitative nature or, simply stated, the expectations of prudent management. Those areas where major quantifiable benefits have been identified in the report are described on the following pages.

As JCP&L will have varying ways to implement recommendations, Schumaker & Company did not estimate the impact of implementing audit recommendations on JCP&L's expense. However, the short-term impact could be considerable. Additionally, implementation of recommendations often requires a phase-in period before benefits can be achieved.

The actual recommendation statements contained in the audit report are shown by phase and work plan area on the following pages. We have also indicated the recommendation number, page number in the report, priority, estimated time-frame to initiate implementation efforts, and estimated benefits following implementation. The details of each recommendation can be found in the individual chapters where the subject matter is evaluated.

## Phase I – Review of Affiliate Transactions, Planning, Operations, & Maintenance Practices

| | Description | Page | Priority | Initiation Timeframe |
|---|---|---|---|---|
| **II. Review of Procurement Activities (ENPRO)** | | 21 | | |
| **III. Affiliated Relationships and Affiliate Allocation Methodologies** | | 41 | | |
| III-1 | Establish affiliate agreements for all missing affiliate relationships, as appropriate, and provide them, as necessary, to the applicable state regulatory commissions for review and approval. (Refer to Finding III-2) | 58 | Medium | 0-6 Months |
| III-2 | Perform periodic studies to determine the cost-competitiveness of centralized functions, consistent with regulatory requirements, and develop plans to address the results of these studies. (Refer to Finding III-3) | 58 | High | 6-12 Months |
| III-3 | Develop documentation regarding SERVECO's allocation factor review process. (Refer to Finding III-4) | 58 | High | 6-12 Months |
| III-4 | Evaluate and implement formal accounting and human resources policies and procedures to address situations in which an employee might leave JCP&L to go to affiliates. (Refer to Finding III-5) | 59 | Low | 12+ Months |
| III-5 | Establish a formal written JCP&L dividend policy. (Refer to Finding III-7) | 59 | Medium | 0-6 Months |
| III-6 | Continually review and update, as appropriate, the number of allocation factors available to SERVECO for affiliate charges, which could reduce the reliance on general allocators. (Refer to Finding III-9 and Finding III-10) | 74 | Low | 6-12 Months |
| III-7 | Routinely perform internal audits of affiliate relationships and associated transactions. (Refer to Finding III-12) | 74 | High | 0-6 Months |
| III-8 | Update the SERVECO CAM documentation. (Refer to Finding III-13) | 75 | High | 6-12 Months |
| III-9 | Avoid charging JCP&L ratepayers for merger team costs. (Refer to Finding III-14) | 75 | High | 0-6 Months |
| III-10 | Study the size of the aircraft fleet to increase overall utilization on the aircraft. (Refer to Finding III-17) | 80 | High | 0-6 Months |
| III-11 | Analyze and modify, as appropriate, aircraft charging mechanisms so that entities such as JCP&L do not excessively pay for services not rendered. (Refer to Finding III-18) | 81 | High | 0-6 Months |
| III-12 | Modify policies and procedures regarding the use of corporate aircraft to provide economic guidelines on appropriate use. (Refer to Finding III-19) | 81 | Low | 6-12 Months |
| III-13 | Perform a lease versus own analysis and submit it to the BPU Audit Division to justify the benefits and costs of maintaining an in-house FE flight operation showing various lease/own options. (Refer to Finding III-17, Finding III-18, and Finding III-19) | 81 | Medium | 6-12 Months |
| **IV. Market Conditions** | | 83 | | |
| **V. Review of Prior Audit Recommendations** | | 91 | | |
| V-1 | Provide a report on the number of circuits that have implemented tie and recloser schemes during the past year as a part of the Annual System Performance Report. (Refer to Finding V-3) | 109 | Medium | 12+ Months |

| Description | | Page | Priority | Initiation Timeframe |
|---|---|---|---|---|
| **VI. Remediation Costs** | | 113 | | |
| VI-1 | Institute a formal process to review the existing project management methodology for the remediation program to determine if there are ways to strengthen and improve it.. (Refer to Finding VI-3) | 120 | Medium | 6-12 Months |
| VI-2 | Investigate the provisions of the RAC minimum filing requirements via an electronic repository that is accessible by the BPU via the Internet. (Refer to Finding VI-3) | 121 | Low | 0-6 Months |
| VI-3 | Perform periodic internal audits of external remediation contractors' invoicing. (Refer to Finding VI-5) | 121 | Medium | 12+ Months |

## Phase II - Comprehensive Management Audit

| Description | | Page | Priority | Initiation Timeframe |
|---|---|---|---|---|
| **VII. Executive Management & Corporate Governance** | | 123 | | |
| VII-1 | Develop a periodic organizational review process. (Refer to Finding VII-1) | 129 | Medium | 6-12 Months |
| VII-2 | Regularly review and update corporate goverance policies. (Refer to Finding VII-4) | 142 | Medium | 6-12 Months |
| VII-3 | Periodically send out letters to all vendors and contractors informing them of FE's Code of Conduct. (Refer to Finding VII-4) | 142 | Medium | 0-6 Months |
| VII-4 | More routinly rotate directors through committees (Refer to Finding VII-5) | 142 | Medium | 12+ Months |
| VII-5 | Review and update the Audit Committee charter to specify that the Audit Committee is responsible for oversight of all risk management. (Refer to Finding VII-6 ) | 142 | Low | 0-6 Months |
| VII-6 | Update the Audit Committee charter to state that the Director of Internal Auditing functionally reports to the Audit Committee and uses FE for logistical support. (Refer to Finding VII-8) | 143 | Low | 0-6 Months |
| VII-7 | Periodically rebid external audit services. (Refer to Finding VII-8) | 143 | Medium | 12+ Months |
| VII-8 | Require all outside counsel to report wrongdoing up through the Board, as is now required from outside counsel practicing before the SEC. (Refer to Finding 0-7) | 143 | Low | 0-6 Months |
| VII-9 | Continue to strengthen employee safety programs. (Refer to Finding VII-15 and Finding VII-16) | 180 | High | 12+ Months |
| VII-10 | Develop a strategic workforce plan. (Refer to Finding VII-11 and Finding VII-12) | 181 | Medium | 12+ Months |
| VII-11 | Strengthen efforts to attract women to managerial and technical jobs. (Refer to Finding VII-17, Finding VII-18, and Finding VII-19) | 181 | High | 12+ Months |
| VII-12 | Strengthen the narrative in the affirmative action plan describing JCP&L's actions and plans for hiring and promoting women and minorities. (Refer to Finding VII-20) | 181 | High | 6-12 Months |
| VII-13 | Develop a comprehensive and integrated external relations/communications strategy. (Refer to Finding VII-24, Finding VII-25, and Finding VII-26) | 190 | Medium | 6-12 Months |

| | Description | Page | Priority | Initiation Timeframe |
|---|---|---|---|---|
| **VIII. Finance and Accounting** | | 193 | | |
| VIII-1 | Explore the advisability of ring-fencing JCP&L's operations from FE. (Refer to Finding VIII-2) | 209 | Medium | 0-6 Months |
| VIII-2 | Seek an extension of approval to participate in the Utility Money Pool. (Refer to Finding VIII-7) | 224 | Medium | 0-6 Months |
| VIII-3 | Study and evaluate combining FirstEnergy's capital budget systems and databases. (Refer to Finding VIII-16) | 257 | Low | 6-12 Months |
| VIII-4 | Provide the resources or effort to reduce the backlog of assets in Account 106. (Refer to Finding VIII-18) | 257 | Medium | 6-12 Months |
| VIII-5 | In conjunction with the FE/Allegheny Energy merger integration process, identify and implement the most efficient organizational design to effectively and independently perform the Internal Audit function.. (Refer to Finding VIII-19) | 257 | Medium | 6-12 Months |
| VIII-6 | Provide the fraud training program to JCP&L employees. (Refer to Finding VIII-22) | 258 | Medium | 6-12 Months |
| **IX. Electric Operations** | | 259 | | |
| IX-1 | Monitor recent capital and/or O&M expenditure reductions to ensure that customer service and reliability levels do not significantly deteriorate and maintain established statewide standards. (Refer to Finding IX-2, Finding IX-4, Finding IX-11, Finding IX-12, Finding IX-14, Finding IX-15, and Finding IX-16) | 338 | High | 0 – 6 Months |
| IX-2 | Complete deferred trimming of the distribution corridors in 2011 consistent with the four-year vegetation management cycle. (Refer to Finding IX-6 and Finding IX-7) | 339 | High | 0 – 12 Months |
| IX-3 | In conjunction with the FE/AYE merger integration process, identify and implement the most efficient organizational design to effectively perform distribution vegetation managemen including considering reorganize distribution vegetation management under the JCP&L Engineering Services group. (Refer to Finding IX-30) | 339 | Medium | 0 – 12 Months |
| IX-4 | Upon completionof the first full program cycle, evaluate the experimental corridor widening program (which has resulted in an increased portion of the expenditures for distribution tree trimming being allocated to capital) and adjust as appropriate. (Refer to Finding IX-8) | 339 | Medium | 12 – 24 Months |
| IX-5 | Award transmission vegetation management contracts to the lowest qualified bidder, and adequately document cases where exceptions are made. (Refer to Finding IX-21) | 340 | Low | 0 – 12 Months |
| IX-6 | Revise capital program and project management to include a focus on managing individual projects according to their schedules and budgets. (Refer to Finding IX-17, Finding IX-18, and Finding IX-19) | 340 | Medium | 0 – 12 Months |
| IX-7 | Begin tracking and reporting the aggregate volume and value of change orders by project and by time period. (Refer to Finding IX-20) | 340 | Low | 6 – 12 Months |
| IX-8 | Begin tracking and reporting actual versus estimated hours by work order and by time period. (Refer to Finding IX-25) | 340 | Medium | 0 – 12 Months |
| IX-9 | Improve the delay reporting to reduce crew downtime and improve schedule adherence. (Refer to Finding IX-26) | 341 | Medium | 0 – 12 Months |

| | Description | Page | Priority | Initiation Timeframe |
|---|---|---|---|---|
| IX-10 | Modify the high-priority circuit program to include a focus on the number of repeat high-priority circuits. (Refer to Finding IX-29) | 341 | Medium | 6-12 Months |
| IX-11 | Re-evaluate the T&D employee and contractor labor allocation. (Refer to Finding IX-34) | 341 | Medium | 0 – 12 Months |
| IX-12 | Include as a component of the analysis of the highest priority circuits the age, size, and type of overhead conductor to determine if these factors are the key contributors to the unreliability of a particular circuit and if conductor replacement would be cost-effective to address customer hours of outages on such circuits. (Refer to Finding IX-9) | 341 | Medium | 6 - 12 Months |
| IX-13 | In conjunction with the high priority circuit program, consider adding CEMI measurements and targets to the internal reliability performance measures to enhance customer satisfaction and further improve reliability. (Refer to Finding IX-3) | 342 | Medium | 12+ Months |
| IX-14 | JCP&L should provide documentation that its distribution planning criteria includes requirements consistent with the PJ Downes' reports for tie and recloser schemes for new and substantially reconfigured circuits, which, over time, will allow for increasing levels of automation with respect to the Company's response to outages. (Refer to Finding IX-37) | 342 | Medium | 0 - 12 Months |
| IX-15 | Determine the root cause(s) of the claims against JCP&L's underground locates contractor and develop a plan to minimize the causes. (Refer to Finding IX-54) | 377 | Medium | 6 - 12 Months |
| IX-16 | Perform periodic audits of the contractor(s) that are providing JCP&L with underground locates services. (Refer to Finding IX-55) | 377 | Medium | 6-12 Months |
| **X. Customer Service** | | 387 | | |
| X-1 | Maintain or achieve customer service performance levels that result in overall customer satisfaction, making improvements where cost-effective. (Refer to Finding X-3, Finding X-5, Finding X-6, Finding X-7, and Finding X-10) | 430 | High | 0 – 12 Months |
| X-2 | In conjunction with the FE/Allegheny Energy merger integration process, identify and implement the most efficient organizational design to effectively perform customer complaint management processes. (Refer to Finding X-4) | 431 | Medium | 0 – 12 Months |
| X-3 | In conjunction with the FE/Allegheny Energy merger integration process and then periodically thereafter, review and evaluate the use of call center resources, both internal and through contractors, in which these periodic reviews consider cost-effectiveness, as well as other relevant factors, including quality, experience, labor pool diversification, and disaster recovery. (Refer to Finding X-8) | 431 | High | 0 – 12+ Months |
| X-4 | Re-evaluate AMR, AMI, and communication devices for inside meters to reduce estimated meter reads and to lower meter-reading costs. (Refer to Finding 12 and Finding X-13) | 431 | Low | 0 – 12 Months |
| X-5 | Complete the JCP&L meter reading rerouting process within six months. (Refer to Finding X-15 ) | 432 | Medium | 0 – 6 Months |
| X-6 | In conjuction with the FE/Allegheny Energy reorganization merger integration process, identify and implement the most efficient organizational design to effectively perform the economic development function, including New Jersey. (Refer to Finding X-23) | 432 | Low | 0 – 12 Months |
| **XI. Clean Energy** | | 433 | | |

| | Description | Page | Priority | Initiation Timeframe |
|---|---|---|---|---|
| **XII. Support Services** | | 441 | | |
| XII-1 | Conduct periodic, formal risk management studies. (Refer to Finding XII-1) | 449 | Low | 0-6 Months |
| XII-2 | Conduct periodic, formal insurance studies. (Refer to Finding XII-3) | 449 | Low | 0-6 Months |
| XII-3 | Strengthen Legal Department objectives and associated KPIs, including responding to survey results. (Refer to Finding XII-4) | 467 | Medium | 6-12 Months |
| XII-4 | Perform a cost/benefit analysis to determine whether state regulatory work should be performed primarily internally or externally in the future, and incorporate the development of RFPs into this decision-making process. (Refer to Finding XII-5) | 467 | High | 0-6 Months |
| XII-5 | Establish formal written Claims function documentation for all FE groups managing claims. (Refer to Finding XII-6) | 468 | Medium | 6-12 Months |
| XII-6 | Perform an investigation and resulting cost/benefit analysis to see if FE's claims system should be replaced. (Refer to Finding XII-7) | 468 | Medium | 12+ Months |
| XII-7 | Begin providing formal reports to JCP&L senior management regarding claims and legal cases activities. (Refer to Finding XII-8) | 468 | High | 6-12 Months |
| XII-8 | Develop a Facilities Master Plan. (Refer to Finding XII-10) | 475 | Medium | 6-12 Months |
| XII-9 | Improve JCP&L turnover rate to 2.1, the level already achieved in 2005. (Refer to Finding XII-15) | 484 | Medium | 0 – 12 Months |
| XII-10 | Improve the JCP&L central storeroom fill rate to 94%, the level already achieved by FEU/Ohio Edison. (Refer to Finding XII-15) | 484 | Medium | 0 – 12 Months |
| XII-11 | Measure the amount and cost of field crew lost time due to material availability (stock out) problems. (Refer to Finding XII-16) | 484 | Medium | 0 – 12 Months |
| XII-12 | Monitor the effect of FE Supply Chain staffing reductions on JCP&L and address adverse impacts as appropriate. (Refer to Finding XII-17) | 485 | Low | 0 – 12 Months |
| XII-13 | Resume Supply Chain participation in benchmarking programs by 2012. (Refer to Finding XII-18) | 485 | Low | 0 – 24 Months |
| XII-14 | Consider adding Supply Chain staff to standards committees. (Refer to Finding XII-19) | 485 | Low | 0 – 12 Months |
| XII-15 | Accelerate the consideration of consolidating the two JCP&L regional storerooms. (Refer to Finding XII-20) | 485 | Medium | 0 – 12 Months |
| XII-16 | Investigate the possibility of vendor resupply of JCP&L central and work center storerooms and/or additional outsourcing of logistics and warehousing functions. (Refer to Finding XII-21) | 486 | Medium | 0 – 12 Months |
| XII-17 | Reinstate JCP&L fleet replacements and catch up to both the FEU fleet replacement guidelines and the fleet replacement strategy within five years, if practicable and cost beneficial. (Refer to Finding XII-25) | 501 | Medium | 0 – 12 Months |
| XII-18 | Accelerate the implementation of scheduling preventive maintenance through a combination of mileage or engine hours of use and elapsed calendar time, if feasible and cost beneficial. (Refer to Finding XII-26) | 502 | Medium | 0 – 12 Months |
| XII-19 | Implement the tracking of fuel usage by vehicle and add fuel use efficiency to the evaluations of individual vehicle and class-of-equipment performance and cost, if feasible and cost beneficial. (Refer to Finding XII-27) | 502 | Low | 0 – 12 Months |
| XII-20 | Conduct a thorough lease-versus-buy analysis before resuming the acquisition of vehicles and equipment for JCP&L. (Refer to Finding XII-28) | 502 | High | 0 – 6 Months |

| | Description | Page | Priority | Initiation Timeframe |
|---|---|---|---|---|
| XII-21 | In conjunction with the FE/Allegheny Energy merger integration process, and regularly thereafter, identify and implement the most efficient organizational design to effectively perform the IT function across FE. (Refer to Finding XII-29) | 529 | High | 12+ Months |
| XII-22 | Incorporate technology direction into IT's strategic planning process. (Refer to Finding XII-30) | 529 | High | 6-12 Months |
| XII-23 | Expand the PMO to take on additional responsibilities. (Refer to Finding XII-32) | 529 | Medium | 12+ Months |
| XII-24 | Expand FirstEnergy's commitment to project management by incorporating all IT employees who are responsible for project delivery into a PMP certification program and closely monitor implementation of this program, whereby all appropriate staff achieve PMP certification to ensure timely progress is made. (Refer to Finding XII-33) | 530 | Medium | 12+ Months |
| XII-25 | Implement a relevant IT dashboard. (Refer to Finding XII-34) | 530 | High | 6-12 Months |
| XII-26 | Expedite completion of SLAs with all major client groups. (Refer to Finding XII-36) | 531 | High | 12+ Months |
| XII-27 | Transition to the use of the remote management software's wake-up capability. (Refer to Finding XII-39) | 531 | Medium | 12+ Months |
| XII-28 | Take and enforce a more aggressive posture with regard to having departments follow FE's records management program. (Refer to Finding XII-40) | 539 | High | 12+ Months |

# B. Company Background

## JCP&L History and Background

JCP&L was organized under the laws of the state of New Jersey in 1925. It owns property and does business as an electric public utility in that state. JCP&L provides transmission and distribution services across 3,200 square miles of northern, western, and east central New Jersey. The area it serves has a population of approximately 2.6 million. JCP&L complies with the regulations, orders, policies, and practices prescribed by the U.S. Securities and Exchange Commission (SEC), (FERC), and the New Jersey Board of Public Utilities (NJBPU).

JCP&L is a FirstEnergy subsidiary that transmits/distributes electricity to about 2.6 million homes and businesses in 13 counties throughout central and northern New Jersey. JCP&L operates more than 19,770 miles of distribution lines. Its 2,160-mile transmission system is overseen by the regional transmission organization (RTO) PJM Interconnection. The utility also has power plant interests. Key 2009 financials for JCP&L are shown in *Exhibit I-2*.

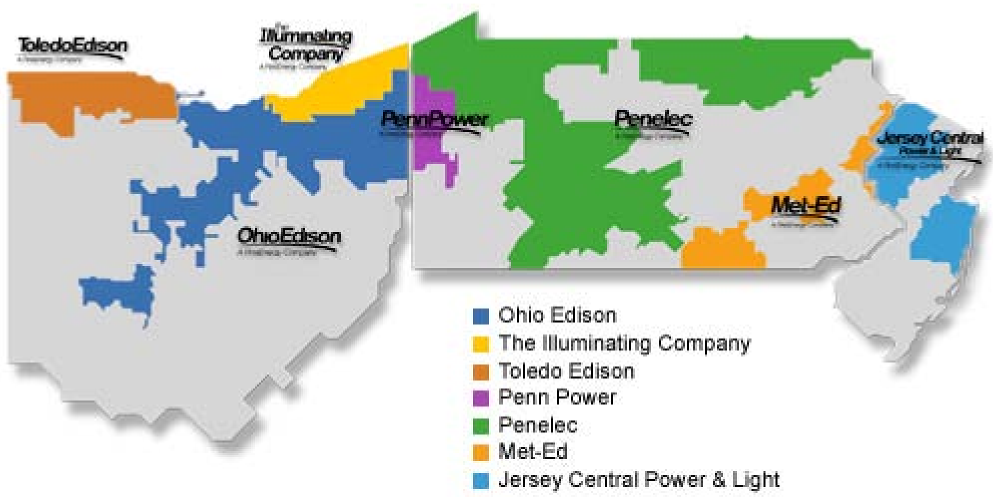
**Exhibit I-2**
**JCP&L Key 2009 Financials**
**as of December 31, 2009**

| Category | Description |
|---|---|
| Company Type | Electric Operating Subsidiary of FirstEnergy |
| Fiscal Year End | December |
| 2009 Electric Operating Revenue | $2.9 Billion |
| 1-Year Sales Revenue Growth | (–8.24%) |
| 2009 Net Income | $170,498,826 |
| 2009 Employees | 1,432 |
| 2009 Bargaining Unit Employees | 1,092 |
| 1-Year Employee Growth | (–2.6%) |

Source: JCP&L FERC Form 1

## FirstEnergy Corporation Background

FirstEnergy Corporation was organized under the laws of the state of Ohio in 1996. It is a diversified energy company headquartered in Akron, Ohio. FirstEnergy's principal business is the holding, directly or indirectly, of all of the outstanding common stock of its eight principal electric utility operating subsidiaries (i.e., Ohio Edison Company (OE), Cleveland Electric Illuminating Company (CEI), Toledo Edison Company (TE), Pennsylvania Power Company (Penn Power), American Transmission Systems, Inc. (ATSI), Jersey Central Power & Light Company (JCP&L), Metropolitan Edison Company (Met-Ed), and Pennsylvania Electric Company (Penelec)) and of its generating and marketing subsidiary, FirstEnergy Solutions (FES). Its subsidiaries and affiliates are involved in the generation, transmission, and distribution of electricity as well as energy management and other energy-related services.




FirstEnergy's consolidated revenues are primarily derived from electric service provided by its utility operating subsidiaries and the revenues of its other principal subsidiary: FirstEnergy Solutions (FES). In addition, FirstEnergy holds all of the outstanding common stock of other direct subsidiaries, including FirstEnergy Properties, Inc.; FirstEnergy Ventures (FEV); FirstEnergy Nuclear Operating Company (FENOC); FELHC, Inc.; FirstEnergy Facilities Services Group, LLC; FirstEnergy Fiber Holdings Corp.; GPU Power, Inc.; GPU Nuclear, Inc.; MARBEL Energy Corporation; and FirstEnergy Service Company (FESC).

FirstEnergy's combined service areas encompass approximately 36,100 square miles in Ohio, New Jersey, and Pennsylvania. The areas it serves have a combined population of approximately 11.3 million. Its seven electric utility operating companies comprise the nation's fifth largest investor-owned electric system based on serving 4.5 million customers in Ohio, Pennsylvania, and New Jersey. Moreover, its generation subsidiaries own or operate nearly 14,000 megawatts of capacity.

As of December 31, 2009, FirstEnergy's subsidiaries had a total of 13,379 employees located in the United States. Some key financials for FirstEnergy are shown in *Exhibit I-3*.

**Exhibit I-3**
**FirstEnergy Key 2009 Financials**
**as of December 31, 2009**

| Category | Description |
|---|---|
| Fiscal Year End | December |
| 2009 Basic Earnings | \$3.31 per share of common stock (\$3.29 diluted) on net income of \$990 million and revenue of \$12.97 billion |
| 2008 Basic Earnings | \$4.41 per share of common stock (\$4.38 diluted) on net income of \$1.34 billion and revenue of \$13.63 billion. |
| 2009 Consolidated Electric Sales | (–9%) compared with 2008, related to economic and weather conditions and changes in generation supply and pricing for the Ohio load |
| 2009 Retail Market Sales | (–8%) compared with the fourth quarter of 2008 |
| 2009 Wholesale Market Sales | (–14%) compared with the fourth quarter of 2008 |
| 2009 Consolidated Generation Sales | (–12%) compared with the fourth quarter of 2008 |
| 2009 Total Distribution Deliveries | (–7%) compared to 2008 and (–3%) in the 4th quarter |

Source: FE FERC Form 1

In addition to lower distribution and wholesale generation revenues, adjusted results for the full year and fourth quarter 2009 were impacted by higher purchased power costs, a reduction in transition cost recovery in Ohio, and higher pension costs. These factors were partially offset by lower operation and maintenance expenses, higher investment income, the impact of delivery service improvement riders in Ohio, and a lower effective income tax rate.

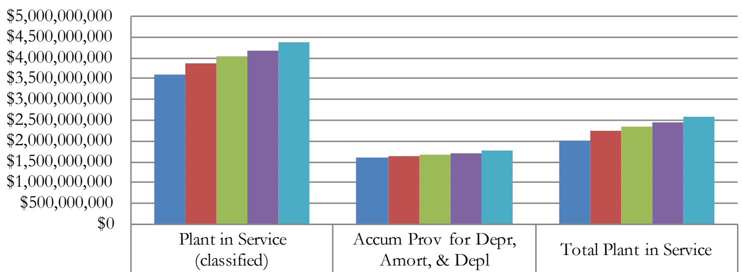
## C. JCP&L 2005 to 2009 Annual Statistics

During the management audit, Schumaker & Company consultants developed a brief historical perspective on JCP&L by compiling a five-year history of some of the key financial and other statistics. This background and perspective was reviewed by all the consultants on the project at the beginning of the project to provide further understanding the current situation at JCP&L. This information is provided here to assist the reader in understanding some of the items discussed in the report. In developing this section, Schumaker & Company reviewed the *Federal Energy Regulatory Commission (FERC) Form No. 1: Annual Report of Major Electric Utilities, Licensees, and Others* for the years 2005 through 2009*,* along with other documents furnished by JCP&L. FERC publishes relevant information on financial and physical operations. Collected data include all line items from balance sheet, income statement, cash flows, plant in service, depreciation, depletion and amortization, taxes, salaries, operating revenue, sales, number of customers, operation and maintenance expenses, environmental facilities and expenses, and much more. The following annual statistics of JCP&L for the years 2005 through 2009 use *FERC Form 1* as their major source of data.

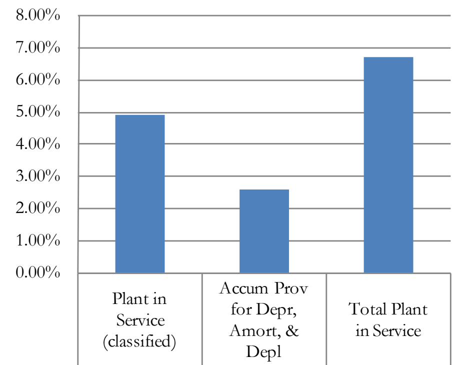
## Total Plant in Service

Total plant in service and growth by years are shown in *Exhibit I-4*. Total plant in service has increased by 6.7% over the last five years, as shown in *Exhibit I-4*. However, the rate of increase has been reduced from the 2005 to 2006 timeframe due to a decrease in capital spending.

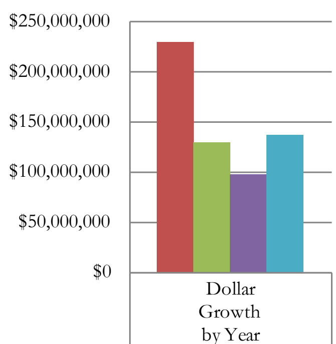
**Exhibit I-4**
**Total Plant in Service & Growth by Year**
**2005 to 2009**



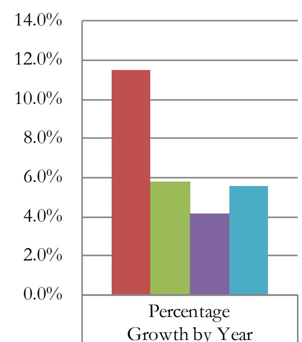
| | Plant in Service (classified) | Accum Prov for Depr, Amort, & Depl | Total Plant in Service |
|---|---|---|---|
| 2005 | $3,601,463,980 | $1,595,909,319 | $2,005,554,661 |
| 2006 | $3,858,490,768 | $1,623,350,351 | $2,235,140,417 |
| 2007 | $4,031,577,591 | $1,667,187,807 | $2,364,389,784 |
| 2008 | $4,163,616,651 | $1,701,480,718 | $2,462,135,933 |
| 2009 | $4,367,670,955 | $1,767,818,841 | $2,599,852,114 |



| | Plant in Service (classified) | Accum Prov for Depr, Amort, & Depl | Total Plant in Service |
|---|---|---|---|
| Compound Growth/Loss 2005-2009 | 4.94% | 2.59% | 6.70% |



| | Dollar Growth by Year |
|---|---|
| 2005 to 2006 | $229,585,756 |
| 2006 to 2007 | $129,249,367 |
| 2007 to 2008 | $97,746,149 |
| 2008 to 2009 | $137,716,181 |



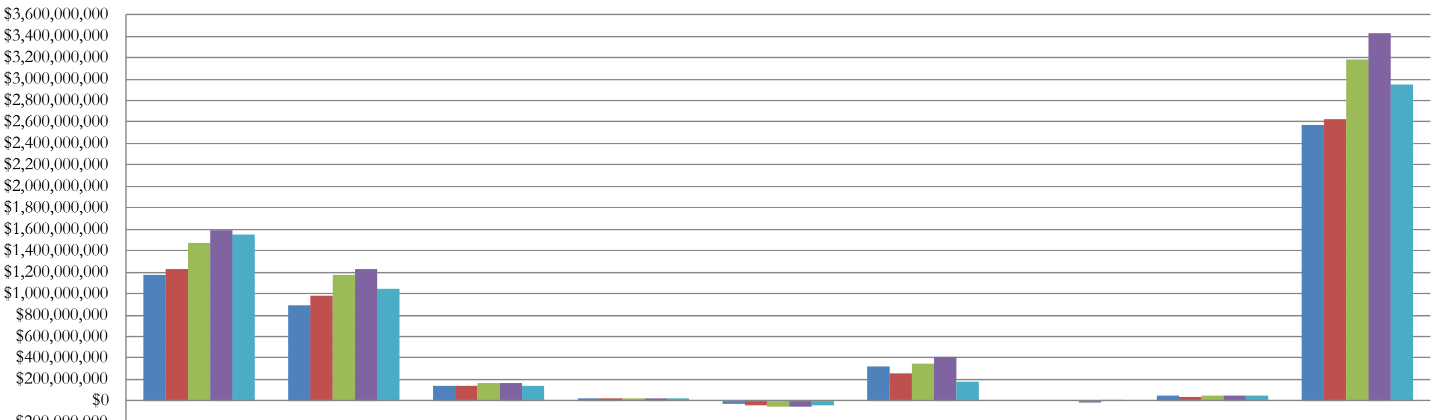
| | Percentage Growth by Year |
|---|---|
| 2005 to 2006 | 11.4% |
| 2006 to 2007 | 5.8% |
| 2007 to 2008 | 4.1% |
| 2008 to 2009 | 5.6% |

Source: *FERC Form 1, p. 200*

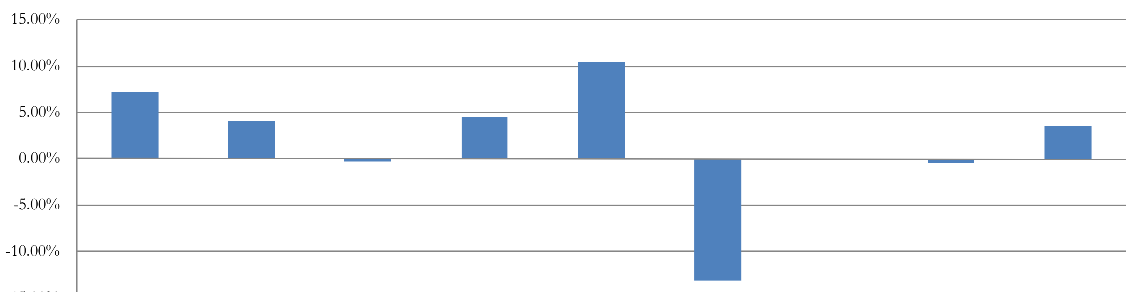
## Operating Revenue

Operating revenues trends are shown in *Exhibit I-5*.

**Exhibit I-5**
**Total Operating Revenue**
**2005 to 2009**




| | Residential | Small Commercial and Industrial | Large Commercial and Industrial | Public Street & Highway Lighting | Sales to Public Authorities | Sales for Resale | Provision for Rate Refunds | Other Revenues | Total Operating Revenue |
|---|---|---|---|---|---|---|---|---|---|
| 2005 | $1,177,914,907 | $888,037,168 | $147,207,097 | $20,509,615 | -$30,411,611 | $320,522,350 | $0 | $48,150,637 | $2,571,930,163 |
| 2006 | $1,224,803,312 | $979,221,075 | $144,640,389 | $21,484,479 | -$41,109,408 | $254,323,755 | $0 | $43,278,947 | $2,626,642,549 |
| 2007 | $1,473,856,460 | $1,181,665,888 | $165,161,286 | $23,703,738 | -$58,447,443 | $352,608,063 | $0 | $46,959,711 | $3,185,507,703 |
| 2008 | $1,592,893,975 | $1,225,595,852 | $168,709,818 | $24,863,878 | -$50,467,165 | $414,652,691 | -$347,227 | $45,990,911 | $3,421,892,733 |
| 2009 | $1,551,717,994 | $1,041,002,587 | $145,591,172 | $24,434,370 | -$45,234,139 | $182,328,210 | $347,227 | $47,372,368 | $2,947,559,789 |




| | Residential | Small Commercial and Industrial | Large Commercial and Industrial | Public Street & Highway Lighting | Sales to Public Authorities | Sales for Resale | Provision for Rate Refunds | Other Revenues | Total Operating Revenue |
|---|---|---|---|---|---|---|---|---|---|
| Compound Growth/Loss 2005-2009 | 7.13% | 4.05% | -0.28% | 4.47% | 10.43% | -13.15% | 0.00% | -0.41% | 3.47% |

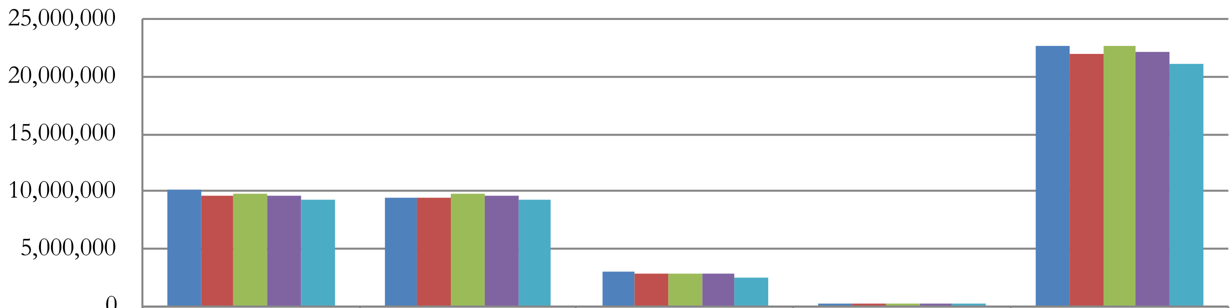
Source: *FERC Form 1 page 300*

Operating revenues experienced a decrease in 2009 after having increased in each of the previous four years, as shown in *Exhibit I-5*. The sales for resale category are primarily associated with certain legacy costs involving non-utility generators.

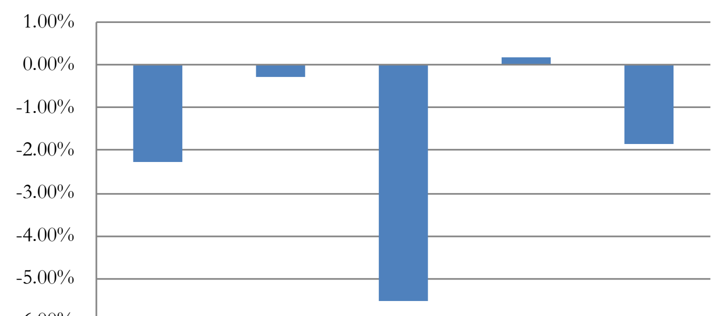
## Sales by Volume (Megawatt Hours (MWh))

Sales by volumes are shown in *Exhibit I-6*.

**Exhibit I-6**
**Sales by Volume (MWh)**
**2005 to 2009**




| | Residential | Small Commercial and Industrial | Large Commercial and Industrial | Public Street & Highway Lighting | Total Megawatt Hours Sold |
|---|---|---|---|---|---|
| 2005 | 10,106,918 | 9,431,766 | 3,073,951 | 86,779 | 22,699,414 |
| 2006 | 9,547,790 | 9,450,490 | 2,831,040 | 86,180 | 21,915,500 |
| 2007 | 9,838,800 | 9,867,446 | 2,884,540 | 88,265 | 22,679,051 |
| 2008 | 9,667,364 | 9,706,944 | 2,773,128 | 88,385 | 22,235,821 |
| 2009 | 9,213,827 | 9,323,204 | 2,447,113 | 87,453 | 21,071,597 |

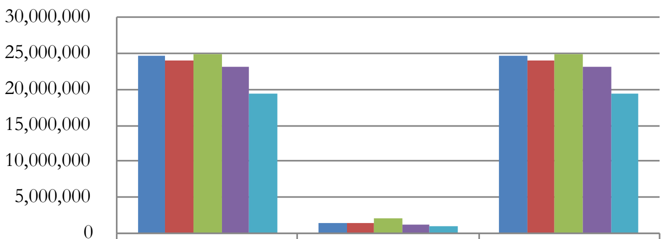



| | Residential | Small Commercial and Industrial | Large Commercial and Industrial | Public Street & Highway Lighting | Total Megawatt Hours Sold |
|---|---|---|---|---|---|
| Compound Growth/Loss 2005-2009 | -2.29% | -0.29% | -5.54% | 0.19% | -1.84% |

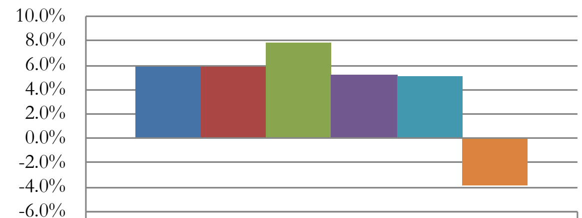
Source: *FERC Form 1 page 304*

Overall sales have been decreasing in the last five years, with the large commercial and industrial customers showing the biggest decrease (–5.54%), as shown in *Exhibit I-6*. In that JCP&L is only a delivery company, these numbers do not reflect its energy sales. MWh as Reported is shown in *Exhibit I-7*.

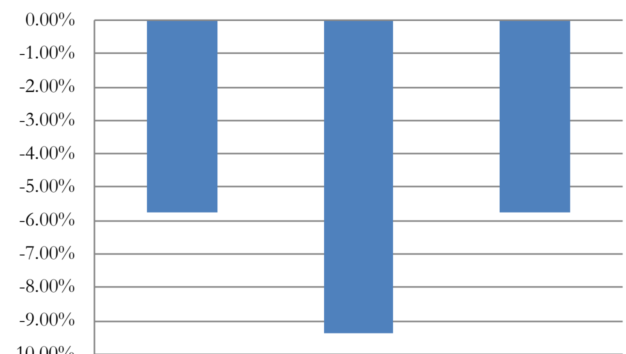
**Exhibit I-7**
**MWh as Reported**
**2005 to 2009**




| | Total MWH Received | Energy Losses Unaccounted For | Total MWH Delivered |
|---|---|---|---|
| 2005 | 24,669,380 | 1,465,445 | 24,669,380 |
| 2006 | 24,012,793 | 1,411,897 | 24,012,793 |
| 2007 | 24,907,868 | 1,959,196 | 24,907,868 |
| 2008 | 23,182,626 | 1,210,456 | 23,182,626 |
| 2009 | 19,470,669 | 987,993 | 19,470,669 |




| | Unaccounted For as Percent of Total Delivered |
|---|---|
| 2005 | 5.9% |
| 2006 | 5.9% |
| 2007 | 7.9% |
| 2008 | 5.2% |
| 2009 | 5.1% |
| Compound Growth/Loss 2005-2009 | -3.86% |




| | Total MWH Received | Energy Losses Unaccounted For | Total MWH Delivered |
|---|---|---|---|
| Compound Growth/Loss 2005-2009 | -5.74% | -9.39% | -5.74% |

Source: *FERC Form 1, p. 401a*

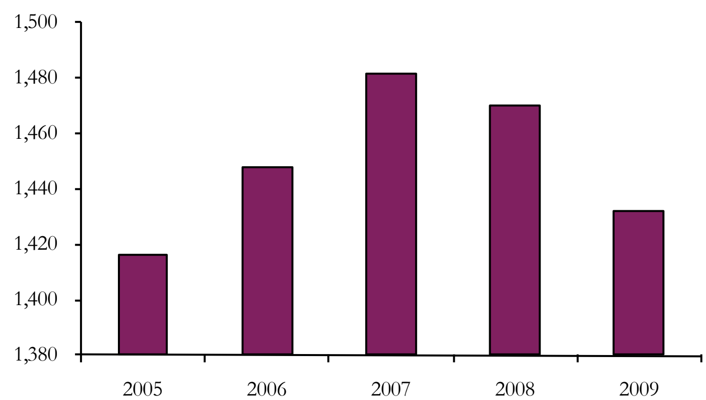
Total MWh received and delivered have decreased in a similar manner, as shown in *Exhibit I-7*.

**JCP&L Total Employees (End of Year)**

JCP&L's employee counts for 2005 through 2009 have been obtained from FirstEnergy *SEC 10-K annual reports*. JCP&L had a one-year employee loss from 2008 to 2009 of 2.59%. This information is shown in *Exhibit I-8*.

**Exhibit I-8**
**JCP&L Employees (End of Year)**
**2005 to 2009**

| | 2005 | 2006 | 2007 | 2008 | 2009 | Compound Growth/Loss 2005-2009 |
|---|---|---|---|---|---|---|
| **Total Employees at Year End** | 1,416 | 1,448 | 1,482 | 1,470 | 1,432 | 0.28% |



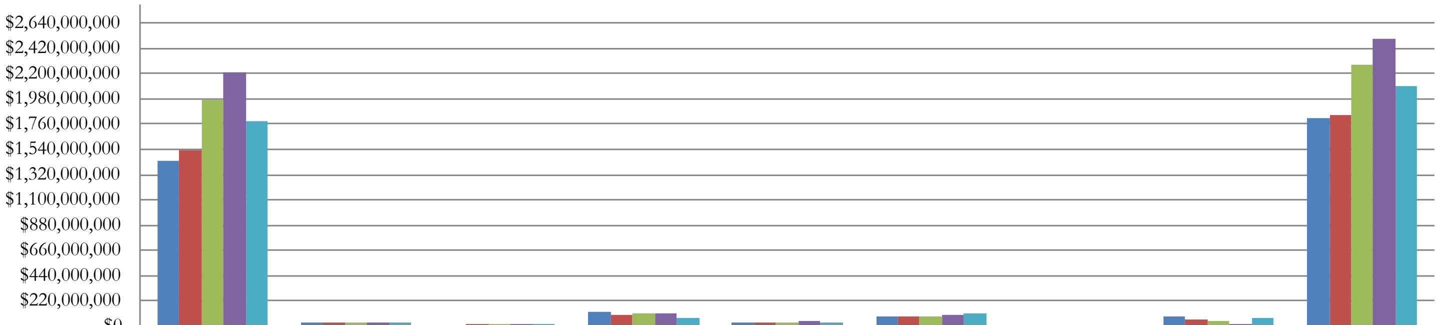

Source: *SEC.gov Archives/edgar/data 10-K Annual Reports*

The total number of employees has remained flat over the last five years after peaking in 2007, as shown in *Exhibit I-8*.

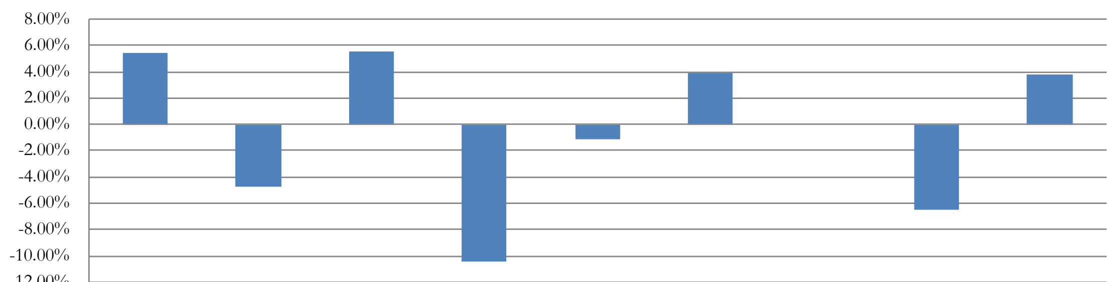
## Operating and Maintenance Expenses

Trends in operating and maintenance expenses are shown in *Exhibit I-9*.

**Exhibit I-9**
**Operating & Maintenance Expenses**
**2005 to 2009**




| | Total Power Production Expenses | Total Transmission Expenses | Total Regional Transmission & Market Op Expns* | Total Distribution Expenses | Total Customer Accounts Expenses | Total Cust. Service & Information Expenses | Total Sales Expenses | Total Admin & General Expenses | Total Electric Operating & Maintenance Expenses |
|---|---|---|---|---|---|---|---|---|---|
| 2005 | $1,444,834,133 | $30,594,886 | $0 | $118,096,604 | $34,479,059 | $89,771,676 | $5 | $87,650,224 | $1,805,426,587 |
| 2006 | $1,530,536,017 | $28,359,940 | $72,721 | $102,821,227 | $35,665,278 | $86,181,162 | $0 | $58,499,280 | $1,842,135,625 |
| 2007 | $1,966,426,375 | $28,723,653 | $69,683 | $115,500,526 | $37,309,332 | $85,130,769 | $0 | $50,319,434 | $2,283,479,772 |
| 2008 | $2,210,998,842 | $25,750,991 | $39,684 | $113,114,858 | $38,592,092 | $98,281,349 | $0 | $21,796,436 | $2,508,574,252 |
| 2009 | $1,785,790,990 | $25,249,534 | $85,704 | $75,945,317 | $32,957,459 | $104,874,573 | $0 | $67,070,622 | $2,091,974,199 |




| * Compound Growth/Loss is 2006-2009 | Total Power Production Expenses | Total Transmission Expenses | Total Regional Transmission & Market Op Expns* | Total Distribution Expenses | Total Customer Accounts Expenses | Total Cust. Service & Information Expenses | Total Sales Expenses | Total Admin & General Expenses | Total Electric Operating & Maintenance Expenses |
|---|---|---|---|---|---|---|---|---|---|
| Compound Growth/Loss 2005-2009 | 5.44% | -4.69% | 5.57% | -10.45% | -1.12% | 3.96% | 0.00% | -6.47% | 3.75% |

Source: *FERC Form 1, pp. 320-323*

JCP&L has made some significant reductions in operations and maintenance expenses, specifically in 2009, as shown in *Exhibit I-9*. Total distribution expenses have been reduced the most at 10.45%.

## Performance Ratios

For the time period spanning 2005–2009, the JCP&L compound growth rate in electric operating revenues was 3.47% and the average number of customers per month was 0.62%, whereas the compound growth rate in volume was –1.84%.

**Exhibit I-10**
**Performance Ratios**
**2005 to 2009**

| | 2005 | 2006 | 2007 | 2008 | 2009 | Compound Growth/Loss 2005-2009 |
|---|---|---|---|---|---|---|
| Total Power Production Expenses | $1,444,834,133 | $1,530,536,017 | $1,966,426,375 | $2,210,998,842 | $1,785,790,990 | 5.44% |
| Total Distribution Expenses | $118,096,604 | $102,821,227 | $115,500,526 | $113,114,858 | $75,945,317 | -10.45% |
| Total Customer Service and Information Expenses | $89,771,676 | $86,181,162 | $85,130,769 | $98,281,349 | $104,874,573 | 3.96% |
| Total Customer Account Expenses | $34,479,059 | $35,665,278 | $37,309,332 | $38,592,092 | $32,957,459 | -1.12% |
| Total Administrative & General Expenses | $87,650,224 | $58,499,280 | $50,319,434 | $21,796,436 | $67,070,622 | -6.47% |
| Total Regional Transmission & Market Op Expns* | $0 | $72,721 | $69,683 | $39,684 | $85,704 | 5.57% |
| | | | | | | |
| Average Number of Customers per Month | 1,067,246 | 1,077,948 | 1,085,244 | 1,089,980 | 1,093,885 | 0.62% |
| **Power Production Expenses per Thousand Customers** | **$1,353,797** | **$1,419,861** | **$1,811,967** | **$2,028,477** | **$1,632,522** | **4.79%** |
| **Distribution Expenses per Thousand Customers** | **$110,655** | **$95,386** | **$106,428** | **$103,777** | **$69,427** | **-11.00%** |
| **Customer Account, Services & Information Expenses per Thousand Customers** | **$116,422** | **$113,036** | **$112,823** | **$125,574** | **$126,002** | **2.00%** |
| **Administrative & General Expenses per Thousand Customers** | **$82,127** | **$54,269** | **$46,367** | **$19,997** | **$61,314** | **-7.05%** |
| **Regional Transmission & Mrk Op Expns Expenses per Thousand Customers*** | **$0** | **$67** | **$64** | **$36** | **$78** | **5.06%** |
| | | | | | | |
| Total Operating Revenue | $2,571,930,163 | $2,626,642,549 | $3,185,507,703 | $3,421,892,733 | $2,947,559,789 | 3.47% |
| Operating Revenues (Residential, Commercial, & Industrial) | $2,213,159,172 | $2,348,664,776 | $2,820,683,634 | $2,987,199,645 | $2,738,311,753 | 5.47% |
| **Power Production Expenses as Percent of Total Operating Revenue** | **56.18%** | **58.27%** | **61.73%** | **64.61%** | **60.59%** | **1.91%** |
| **Distribution Expenses as Percent of Total Operating Revenue** | **4.59%** | **3.91%** | **3.63%** | **3.31%** | **2.58%** | **-13.45%** |
| **Customer Account, Services & Info Expenses as Percent of Total Operating Revenue** | **4.83%** | **4.64%** | **3.84%** | **4.00%** | **4.68%** | **-0.81%** |
| **Administrative & General Expenses as Percent of Total Operating Revenue** | **3.41%** | **2.23%** | **1.58%** | **0.64%** | **2.28%** | **-9.61%** |
| **Regional Transmission & Mrk Op Expns Expenses as Percent of Total Operating Revenue** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **N/A** |
| | | | | | | |
| Megawatt Hours Sold | 22,699,414 | 21,915,500 | 22,679,051 | 22,235,821 | 21,071,597 | -1.84% |
| **Power Production Expenses per MWH** | **$63.65** | **$69.84** | **$86.71** | **$99.43** | **$84.75** | **7.42%** |
| **Distribution Expenses per MWH** | **$5.20** | **$4.69** | **$5.09** | **$5.09** | **$3.60** | **-8.77%** |
| **Customer Account, Services & Information Expenses per MWH** | **$5.47** | **$5.56** | **$5.40** | **$6.16** | **$6.54** | **4.55%** |
| **Administrative & General Expenses per MWH** | **$3.86** | **$2.67** | **$2.22** | **$0.98** | **$3.18** | **-4.72%** |
| **Regional Transmission & Mrk Op Expns Expenses per MWH** | **$0.00** | **$0.00** | **$0.00** | **$0.00** | **$0.00** | **N/A** |

* Compound Growth/Loss calculated for 2006-2009 only

Source: *FERC Form 1*

**Performance Ratios per Thousand Customers**

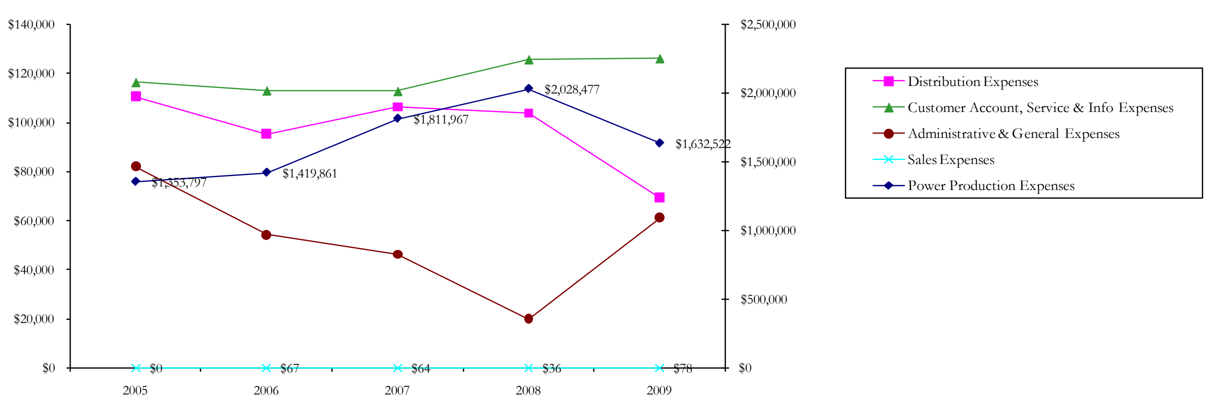
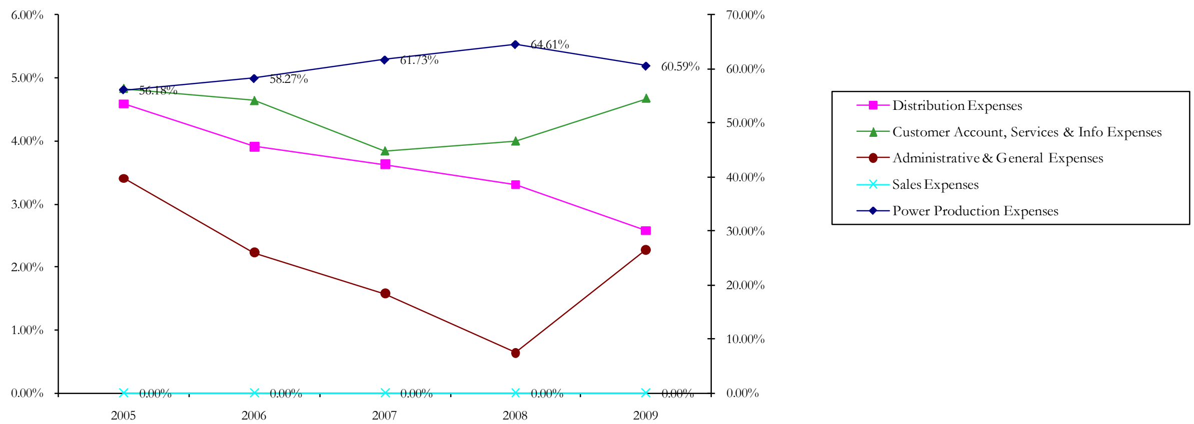


**Exhibit I-13**
**Performance Ratios**
**2005 to 2009**
**(continued)**

**Performance Ratios as Percent of Customer Class Revenue**




**Performance Ratios per MWH**