# The Economic Opportunities for a Limited Industrial Retail Choice Plan In Louisiana



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#### ACKNOWLEDGEMENTS

The initial interest associated with this report began in the summer of 2003: a time in which a large number of Louisiana's industrial customers were continuing to suffer from the pressures of a prolonged national downturn in industrial production, high natural gas prices, and global competition. A group of these industrial customers, after consulting with each LPSC Commissioner, approached the Center for Energy Studies ("CES") to conduct an independent examination of the potential savings and economic impacts of the "Staff Plan" proposed in July, 2001. These customers agreed to provide financial support for the study, and while they have offered suggestions about the project's original work plan and scope, neither they, nor the LPSC, have had any involvement in the development of the study approach or results.

All major stakeholder groups were briefed about the study and its results prior to final release. These stakeholders included the LPSC Commissioners, the LPSC Technical Staff, industrial users, several representatives from state agencies, independent power developers, investor-owned utilities, rural cooperatives, and the Office of the Governor. The fact that these briefings occurred should not be construed as any acceptance or rejection of the study by any stakeholder group, but was simply an initiative to inform all parties about the study and its conclusions.

# **SECTION 1: INTRODUCTION**

Repeated studies and practical experience confirm the importance of low cost,

An important economic development policy challenge over the next several years will be to quickly eliminate barriers to lower cost energy resources for the State's manufacturing base. Louisiana has already made significant strides in the recent promotion of liquefied natural gas facilities ("LNG") in Louisiana and the Gulf of Mexico region. The State is also working with industry to streamline the process of permitting exploration and production ("E&P") activities to bring additional energy resources on-line more quickly. Another policy tool that could be utilized to provide some relief for the state's large industries would be to allow these companies to choose their own provider of electricity.

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# SECTION 2: THE IMPORTANCE OF ELECTRICITY TO LOUISIANA INDUSTRY

Many industrial customers in Louisiana believe that they could realize lower costs, increased service flexibility, and increased on-site profitability if they were allowed to secure their power supplies in open competitive markets, much like they have been doing for years with natural gas. Today, Louisiana's industries are facing the double pressures of global competition and high domestic energy prices. For them, even the slightest reduction in energy costs is significant.

This section of the report examines the issues associated with industrial energy costs, their importance, and industrial customers' perceptions regarding their ability to secure more cost-effective deals in a competitive market.

#### 2.1 Overview of Louisiana's Industrial Power Markets

Industrial users in Louisiana consume a considerable amount of energy. Schedule 4 shows the two primary forms of energy used by each Louisiana industrial sector.<sup>3</sup> While overall energy usage is concentrated in natural gas, industrial electricity use in the state is also significant.

Schedule 5 shows historic Louisiana industrial electricity sales.<sup>4</sup> While electricity sales are lower than that of the mid to late-1990s, they still hover between 25 to 30 million MWh per year. This level of usage makes Louisiana one of the larger industrial users of electricity in the U.S. (see Schedule 6). While total electricity sales for the state currently ranks towards the low end of the country's major purchasers, this ranking hides the true magnitude of Louisiana's industrial usage. Consider that:

- (1) Despite a relatively lower level of total industrial sales, Louisiana's industrial customers purchase electricity on a relatively intense basis (i.e., more purchases on a per-customer basis).
- (2) Louisiana's industrial customers generate a considerable amount of their electricity, thus, reported sales from utilities (which are presented in Schedules 5 and 6) hide the true magnitude and importance of electricity consumption at the State's industrial facilities.
- (3) These numbers tend to be skewed towards the large number of smallersized industrial customers that, in most cases, would not be eligible for retail choice under the proposed Staff Plan. Examining these figures on an SIC basis reveals the exceptional magnitude and importance of electricity

<sup>&</sup>lt;sup>3</sup>Industrial sectors are represented by Standard Industrial Code ("SIC").

<sup>&</sup>lt;sup>4</sup>These sales are purchases from utilities, and as noted later in this section, do no represent total consumption since many industrial customers can generate their own electricity on-site.

consumption for some of Louisiana's most important industries like chemicals and refining which combined, account for close to half of total manufacturing GSP in the state.

Schedule 7, for instance, shows the recent trends in average industrial sales per customer. While these numbers have been decreasing since the mid-1990s, per customer sales are still around 1,800 MWh per customer. This makes Louisiana the 11<sup>th</sup> largest per customer industrial purchaser of electricity in the U.S. (see Schedule 8). This is considerable given the fact that close to 26 percent of Louisiana's electricity is generated and used on-site at industrial facilities through cogeneration processes (see Schedule 9 and Schedule 10).

In 2002, Louisiana's industries generated over 23 million MWh of electricity – or 86 percent of the electricity it purchases from utilities on an annual basis. This makes the state the second largest industrial cogenerator of electricity in the U.S. (see Schedule 11) If Louisiana's industrial on-site generation were added to the total sales numbers discussed above, the state ranks in the top five states in terms of total usage (see Schedule 12), and 7<sup>th</sup> in terms of industrial usage per customer usage (Schedule 13). Historic industrial sales, combined with historic industrial generation, are presented in Schedule 14.

Schedule 15 however, drives home the importance and magnitude of electricity usage for each of Louisiana's industrial sectors. This table examines total and average usage for each industrial sector. The chemical industry, for instance, uses as much as 21.6 million MWhs of electricity annually. The refining industry (Petroleum and Coal Products) can use as much as 6.6 million MWhs, while the paper and pulp industry uses as much as 6.0 million MWhs.

One of the unique aspects of Louisiana's power markets is its overwhelming concentration of industrial customers and sales as a percent of the overall market. Schedule 16, for instance, presents Louisiana's historic industrial sales as a percent of total sales. In 1996, industrial sales amounted to 43 percent of total Louisiana retail sales. The U.S. average during this period was considerably lower, around 33 percent. Since 1996, Louisiana's industrial sales, as a share of total retail sales, have fallen by 20 percent and now stands around 34.5 percent.

# 2.2 Louisiana's Industrial Electricity Rates, Expenditures, and Competitiveness

Schedule 17 shows historic annual electricity expenditures for Louisiana's industrial customers. During the natural gas price increases of 2000-2001, industrial rates increased to a record \$1.6 billion per year level. These expenditures have fallen in 2002-2003 in large part due to the decreases in sales (MWhs purchased) during the period.

Schedule 18 provides a table that estimates the average expenditures by industry sector for 2002. An average firm in the chemical industry, for instance, can spend as much as \$6.2 million per year on electricity from utilities. An average firm in the petroleum refining industry can spend as much as \$10.5 million per year on electricity, while a typical firm in the paper manufacturing industry spends as much as \$5.6 million in annual electricity costs. While considerable, these figures are probably an understatement of total industry-specific electricity expenditure since they are based upon purchases from utilities and do not include the costs of on-site power generation.

Histori

or less means that Louisiana's industrial rates are equal or less than the Southeastern or national average. A ratio greater than 1 means that Louisiana's industrial rates are higher than the Southeastern or national average. As seen in this schedule, Louisiana begins to loose its competitive advantage with the Southeast in 1996 (a ratio at, or exceeding 1) and the national average in 2000.

# 2.3 Industrial Customers' Perceived Opportunities in Competitive Markets

Industrial customers, as well as competitive electricity suppliers, list a host of factors supporting their belief that competitive markets could result in lower retail prices for large industrial plants in Louisiana. These factors include:

- (1) Recent trends in regional wholesale power markets.
- (2) Trends in retail rates relative to those in wholesale markets.
- (3) The successes observed by industrial customers in other markets that have some form of competition.
- (4) There is a glut of underutilized independent power generation located throughout the state that could offer industrial customers a wide range of (physical) competitive supplies to choose from.

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There is some reason to believe these new, underutilized merchant generating resources could serve as a competitive source of supply to large industrial customers if they were allowed to exercise these options under a retail choice plan. As shown in Schedule 30, many of these generators are located in very close proximity to eligible industrial facilities. Almost 26 percent of the eligible industrial sales are located within 5 miles of a merchant generator, and close to half (48 percent) of eligible industrial sales are located within 10 miles.

# SECTION 3: APPROACH AND METHODS

#### 3.1 Introduction

Estimating the potential savings associated with a limited large industrial choice plan, like the one envisioned in the Staff Plan, is a complicated undertaking. Of all customer classes, the industrial class is one of the most heterogeneous and difficult to model. Every attempt was made during the course of this research to use the most disaggregate data possible. Thus, the data, and ultimately the estimates of rate savings and economic impacts, are based upon firm-specific survey information collected during the period 1999-2002.

This section of the report outlines the various methods, approaches, and assumptions used to model potential retail savings and the economic impacts associated with the Staff Plan. The discussion includes an overview of:

- How eligible customers are defined and how they match with the information collected by the LPSC Staff in its Retail Choice Collaboratives Process;
- (2) How the base level of rates were determined and how those compare with the base rates established by the LPSC Staff in its Retail Choice Collaboratives Process;
- (3) How fuel rates were determined in order to reconcile the varied sources of data that were in mixed terms (i.e., base rate versus total rate basis); and
- (4) How large industrial customer retail choice "take-rate" scenarios were determined and modeled.

Any model has a number of assumptions and limitations. The assumptions and/or limitations applicable to our research are discussed in each of the following subsections.

#### 3.2 Definition of Eligible Customers

As noted earlier, this study attempted to avoid averages and generalized aggregations of information wherever possible. Since the LSU Center for Energy Studies ("CES") did not have access to the customer-specific information collected in the discovery process by the LPSC Staff in the Retail Choice Collaboratives Process, an alternative means of examining plant-specific impacts was developed.

Plant-specific information was used in this research for two primary purposes. First, in order to keep with the project goals, estimates were developed to get as close as possible to the individual customer level. Often, broad averages and aggregations of customer data can mask the potential savings, as well as the distribution of those savings, across customers of various different sizes. While the Staff Plan would only allow customers with loads greater than 5 MW the ability to choose their own electricity provider, initial research indicates that this is still a relatively diverse class of customers.

Second, firm-specific information can be tied to Standard Industrial Code ("SIC") as well as specific parishes located throughout the state. Developing estimates on a SIC and parish-specific level allows rate savings to be directly linked to the CES economic impact models without any adjustments or additional assumptions regarding the industrych indicates that this is

underestimate amount. This adjustment helps bring the two sets of usage numbers to equal levels on a per customer and aggregate basis. Similar calculations were conducted for AEP-SWEPCO and CLECO which also helps to address the larger usage imbalances (but makes no correction in eligible customers).

# 3.3 Definition of Baseline Level of Rates

In order to accurately assess savings, a baseline set of rate information must be

A utility-specific fuel rate was determined based upon existing generation levels and fuel amounts. Contemporaneous fuel prices were used in order to develop a fuel cost per kWh amount. Data used to develop these estimates comes from the FERC Form 423 (fossil fuel usage), Form 928 (generation), and Form 1 (annual nuclear generation). The fuel rates were then added to the LPSC information to develop a total rate, and were removed from the FERC Form 1 data to develop a base rate. All numbers were trued-up to current market gas prices (based upon Henry Hub spot prices).

### 3.4 Definition of Potential Sources for Savings

Another significant modeling design question in this investigation included the development of the potential sources of savings in a limited, large industrial-only retail choice environment. This study examined a variety of potential outcomes including:

- Observed Retail Energy Providers ("REP") Savings Option;
- Fixed Heat Rate Contract Option;
- Cogeneration/Affiliate Wheeling Option; and
- Average Utility Rate Discount Option

The development of each of these options is discussed in further detail below.

**Observed Retail Energy Provider ("REP") Savings Option:** This option considers the potential discount that industrial customers could obtain in a retail choice environment. The savings ranges are based upon "observed" REP discounts – that is, discounts that industrial customers are currently getting in states that allow large customer retail choice. These numbers were collected from the DOE/EIA, and are simply the differences between the utility-provided industrial retail rate, and those currently offered by competitive energy service providers.

Three different ranges of rate discounts were considered. The first range was the "average" savings currently observed in retail choice states. This average is simply the average of all discounts offered across all retail choice states and is currently around 20.2 percent.

The second discount range considered was the maximum savings amount. This analysis applied the highest observed discount observed for states with retail choice. The highest percent discount offered by any state currently offering industrial retail choice is 47.5 percent. It should be noted that initial CES analysis of this discount revealed that this order of magnitude discount is not likely since it would result in industrial retail rates that are considerably lower than regional wholesale market rates.

The third discount range was the minimum observed savings level in industrial retail choice states. In this instance, the minimum discount was actually a 29.2 percent increase in rates (Maryland). An increase like this is a highly unlikely outcome for Louisiana given the recent trends in wholesale markets and the large amount of highly efficient merchant generation in the region.

*Fixed Heat Rate Contract Option:* The second retail choice option was to examine how existing utility-offered industrial retail prices compare to fixed heat

of the minimum savings amount, there was actually a rate increase experienced (see Schedule 28).

### SECTION 4: EMPIRICAL RESULTS

### 4.1 Analysis of Eligible Customers

As noted in Schedule 32 there are 139 industrial customers, with 20.9 million MWh of sales, estimated to be eligible for customer choice under the proposed Staff Plan.<sup>11</sup> The majority of these eligible customers are served by Entergy (89 percent).

Schedule 33 shows the location of each of the industrial customers that are eligible under the Staff Plan. These customers are located throughout the state, but it is clear that there is a significant concentration in South Louisiana. Almost 13 percent of the eligible customers are located in Ascension Parish, 9 percent are located in Calcasieu Parish, and 9 percent are located in East Baton Rouge Parish.

The industrial customers eligible for retail choice under the Staff Plan account for a considerable amount of manufacturing employment within their respective parishes. Schedule 34 shows the employment figures for those eligible customers throughout the state. Eligible customers in Caddo, for instance, account for 13 percent of the 2002 employment levels of all eligible customers.

There are 20.9 million MWh of usage for industrial customers eligible for retail choice under the Staff Plan. Schedule 35 shows the estimated concentration of these sales, by parish. At over 21 percent of sales, Calcasieu Parish has some of the highest concentrations of eligible sales of any individual parish in the state.

Schedule 36 provides a break-down of estimated eligible sales by major industry category (standard industrial code, or "SIC") in the state. It probably comes as no surprise that the overwhelming majority of the eligible industrial sales under the Staff Plan are associated with chemical (55 percent) and refining (23 percent) production.

### 4.2 Analysis of Estimated Savings

Schedule 37 presents an overall summary of estimated 2002 estimated electricity usage and expenditures for industrial customers eligible for retail choice under the proposed Staff Plan. Two sets of expenditures have been provided: one based upon estimates using average revenues from the FERC Form 1 information<sup>12</sup> (hereafter CES expenditure estimates), and the other using

<sup>&</sup>lt;sup>11</sup>The remainder of this study will refer to count estimates developed by CES and not those presented by the LPSC Staff in its Retail Choice Collaboratives Process. Usage data has been reconciled to match on a total company basis and therefore do not differ.

<sup>&</sup>lt;sup>12</sup>Usage levels that are used to develop total expenditures are the same for both the LPSC estimates and those developed by CES. The only difference in the total expenditure

average revenue information developed by the LPSC Staff in its Retail Choice Collaboratives process. The CES estimated expenditures are \$1,098,469,000 while the LPSC Staff estimates are slightly higher at \$1,098,860,000.

Schedule 38 examines total estimated savings on a utility-specific basis. Recall that each scenario makes a number of assumptions regarding industrial "take

posited in Scenario 1, could gain between \$21 million (average savings approach) to \$22 million (fixed heat rate approach).

The largest estimated savings opportunity under Scenario 1 rests with the Entergy operating companies. Industrial customers served by Entergy could save between \$186 million (average savings approach) to \$110 million (fixed heat rate approach) under the proposed Staff Plan. Based upon the estimates in this research, a considerable portion of these savings could come from eligible industrial customers taking advantage of affiliate and cogeneration options (33 percent).

Schedule 39 presents the estimated savings levels for eligible customers by industry type. The two largest industry beneficiaries from the proposed Staff Plan are the chemical and refining industries. The chemical industry stands to gain between \$66 to \$116 million, while the refining industry could see gains between \$31 and \$46 million. The third largest industrial beneficiary is the paper manufacturing industry (\$20 to \$23 million) which is located primarily in Cleco's service territory.

Schedule 40 presents a map that estimates the distribution of the estimated industrial savings that could result from the Staff Plan by parish for the average savings approach, Scenario 1. Almost 15 percent of the total estimated savings occur in Calcasieu Parish. Twelve percent of the estimated savings occur in both Iberville and Ascension Parish. All three of these parishes are large centers for

already competitive, and the incentive for the Company to offer further discounts (the primary source of these estimated benefits) would be limited.

For Scenario 2 and 3, Cleco customers could see a relatively significant level of savings. For Scenario 2, these savings hover around \$15 million for both choice approaches (i.e., average savings and fixed heat rate). Under Scenario 3, these savings fall to a level of around \$6 million.

One of the major beneficiaries of the Staff Plan under Scenario 2 and 3 are the industrial customers served by the Entergy operating companies. These savings

- Entergy's curtailable service rate (CS-25) are competitive with the market (average CS rate of \$0.0476 compared with a higher fixed heat rate contract amount of \$0.0490). However, only 27 of the 112 eligible customers are able to take advantage of this rate. Further, these rates are interruptible and not firm as they would be under a fixed heat rate contract.<sup>14</sup> The next nearest set of estimated rates (which are firm), under which a large number of customers were estimated to take service, hovered in the \$0.05 to \$0.06 range and were not as competitive with the estimated market rate.
- AEP-SWEPCO's industrial rates are very competitive and actually below most all estimated market rates (estimated average LLP service rates of \$0.370 versus an estimated fixed heat rate contract amount of \$0.0490).
   However, according to the 2002 FERC Form 1 data, only one customer took service under this rate. Again, if other customers migrated to this tariff (or some variation) it seems likely that most of the savings attributable to competition would be considerably reduced.

It should be noted that in many instances, on an industrial-firm specific basis, there are actually negative savings that result from the competitive market estimates: these numbers, however, wash-out in the aggregate. The reason for the overwhelming level of aggregate savings rests with two factors:

- In some instances, there are still considerable estimated savings opportunities for affiliate wheeling and cogeneration options. Despite very attractive rates relative to the market, it is difficult in many instances for utilities to beat the efficiency advantages of the on-site combined heat and power applications that appear to still be apparent at a number of facilities in Louisiana. This is particularly true for some Entergy industrial customers (even some of whom take relatively competitive CS service), and a few paper and pulp customers for CLECO.
- There are considerable opportunities for savings from the majority of the customers not getting special industrial rates listed above that are more competitive with the wholesale market. These savings opportunities add-up in the aggregate.
- Some of the saving are attributable to the competitive effects of lower utility rates which are assumed to be offered in the face of more

competitive provider. The only other opportunities for savings would be associated with cogeneration/affiliate wheeling opportunities with paper and pulp mills.

<sup>&</sup>lt;sup>14</sup>A monetary adjustment for the qualitative difference in the types of power taken under interruptible (CS) versus firm service would more than likely remove the apparent competitiveness of the CS rates.

competitive pressures. Industrial customers that are currently being offered utility rates that are competitive with the market are probably not as likely to get discounted service as those that are being actively courted by competitors.

#### 4.3 Analysis of Estimated Economic Impacts

Major shifts in expenditures can result in considerable changes in the nature of economic activity in a particular region. The savings associated with the proposed Staff Plan œuld have additional impacts that are felt throughout the state's economy. These "multiplier" impacts are premised upon the notion that a dollar spent on a given activity in a regional economy can generate significant additional dollars in supporting economic activity as well as through the additional purchasing power created by new incomes. This section of the report estimates those impacts.

Savings are treated as the direct impacts or shocks in local economies resulting from industries acting on the opportunities afforded to them under the proposed Staff Plan. Holding the current level of usage constant, these savings will allow industries to redirect dollars to other activities that could include such things as deferred plant maintenance, equipment purchases and upgrades, local charitable contributions, and employee training and development programs.

Some correction has to be made, however, for leakages from the Louisiana economy. It is not reasonable to assume that every dollar saved in Louisiana on electricity expenditures, for instance, will stay here.<sup>15</sup> Our direct economic impact estimates makes corrections for these leakages. As a result, the direct impacts will not exactly match the total savings amounts discussed earlier. Total economic impacts, therefore, should be thought of as being represented on a "net" basis (i.e., net to the Louisiana economy).

There is also a host of indirect and induced impacts, also know as "multiplier" impacts. Indirect impacts are those dollars expended in support activities for a particular industry. For the chemical industry it could be the additional dollars generated by vendor and service company activity. The induced impacts are the dollars spent by the employees engaged in both direct and indirect activities.

Schedule 46 shows the economic impacts for each of the three scenarios under investigation with each page highlighting the results from each of the three scenarios under an average savings approach. The impacts include:

(1) **Output Impacts:** the change in regional economic output/production

- (2) *Employment Impacts:* the change in jobs associated with a change in electricity expenditures.
- (3) *Employee Compensation Impacts:* a subset of value added that includes the change in wages associated with a change in electricity expenditures.

While each table included in Schedule 46 outlines each of these impacts, a number are worth highlighting. Under the average savings approach, in Scenario 1, there is \$118 million in total estimated economic output effects associated with the proposed Staff Plan. These output impacts decrease to \$81 under Scenario 2 and \$55 under Scenario 3.<sup>16</sup> In terms of employment, 454 jobs are estimated to be created by the savings generated under the proposed Staff Plan under Scenario 1 (average savings approach). These employment opportunities decrease to 310 jobs for Scenario 2 and 202 jobs for Scenario 3.

On a per-industry basis, the most pervasive economic effects of the proposed Staff Plan are felt by the chemical and refining industries. Under Scenario 1, the output impacts are large as \$22 million for chemicals and \$44 million for refineries. From an employment perspective, 47 and 20 jobs are assumed to be created in the chemical industry and refining industries, respectively. An additional \$5.3 million associated with new employee compensation is also added in Scenario 1.

Under the fixed savings approach (Schedule 47), in Scenario 1, there is \$76 million in total estimated economic output effects associated with the proposed Staff Plan. These output impacts decrease to \$65 under Scenario 2 and \$47 under Scenario 3.<sup>17</sup> In terms of employment, 292 jobs are estimated to be created by the savings generated under the proposed Staff Plan under Scenario 1 (fixed savings approach). These employment opportunities decrease to 243 jobs for Scenario 2 and 173 jobs for Scenario 3.

Again, on a per-industry basis, the most pervasive economic effects of the proposed Staff Plan are felt by the chemical and refining industries. Under Scenario 1, the output impacts are large as \$12.5 million for chemicals and \$30 million for refineries. From an employment perspective, 26 and 13 jobs are assumed to be created in the chemical industry and refining industries, respectively. An additional \$3.2 million associated with new wages (i.e., employee compensation) is also added in Scenario 1.

<sup>&</sup>lt;sup>16</sup>Impacts are based upon savings estimated using the average savings approach.

<sup>&</sup>lt;sup>17</sup>Impacts are based upon savings estimated using the average savings approach.

#### **SECTION 5: CONCLUSIONS**

The results of this analysis suggests that there are considerable savings that would accrue from a limited retail choice plan for large industrial customers. The ripple effects that would be generated from such a proposed plan could be equally impressive. Based upon the analysis included in this report, savings could range from \$211 million under a very aggressive retail choice adoption scenario, to \$69 million under more modest adoption rate assumptions. The net economic impacts for Louisiana range from a high of \$118 million to a low of \$47 million in terms of output effects, with job creation ranging from 454 jobs to 173 jobs.

A proposal to move forward with a limited form of large customer retail choice, like that proposed by the LPSC Staff, does not, however, come without a certain set of costs. And, as is true with any public policy, these costs need to be compared with benefits to determine the overall net benefits.

In terms of costs, the clearest challenge associated with a large industrial customer choice plan is the potential impact that such a large shift in sales could have on the remaining residential and commercial customers. However, if large amounts of load abruptly leave, there will be arguably fewer customers (and sales) to recover overall utility costs. This assumes that costs are relatively constant to increasing over time and that no other sales growth occurs to offset the losses associated with competition.

As seen in Schedule 48, residential customers have rates around the regional average, and well below the national average. Any plan for limited industrial retail choice would need to ensure that these trends are preserved. Thus, a close understanding of the amounts of load at risk relative to future utility resource requirements and commitments needs to be considered.

### 5.1 Analysis of Competitive Sales Leaving the Utility System

Schedules 49 through 56 present a number of analyses that put the potential load loss/cost shifting argument into perspective. Schedule 49, for instance, shows that estimated total eligible industrial sales represents about 70 percent of total Louisiana industrial sales. However, Schedule 50 shows that total eligible industrial sales represents 26 percent of total Louisiana retail sales (i.e., the sum of all retail, commercial, and industrial sales).

Schedules 51 through 53 examine the allocation of industrial sales choosing competitive providers relative to total retail sales. Under Scenario 1, competitive sales represent only 22 percent of total Louisiana retail sales. Under Scenario 2 (Schedule 52), industrial sales leaving for competition represent only 14 percent of total retail sales, and under Scenario 3, they represent 5 percent of all

Louisiana retail sales (Schedule 53). Schedules 54 through 56 provide similar information on a utility-specific basis.

Each of the analyses included in the schedules referenced above compares industrial sales potentially leaving for competitive service relative to overall retail sales. Clearly, under Scenario 1 – the most aggressive of all under investigation – the sales potentially leaving the system are considerable. They represent close to one quarter of the total retail sales.

Competitive sales in Scenarios 2 and 3 are only 14 and 5 percent of total retail sales in each of these scenarios. Clearly, levels that are more manageable – particularly if such a plan were implemented over time.

# 5.2 Other Factors For Consideration In Offering Large Industrials the Opportunity for Choice

On the benefit side of the equation, the estimated savings and economic impacts in this study are perhaps some of the more significant reasons to implement a large industrial choice plan like that proposed by the LPSC Staff. There are, however, a few additional benefits that the Commission should consider.

The first would be the potential to deter future capacity purchases. The ability to allow large customers to leave the system over time could take some pressure off regulated a8i82.25 2ld be the LPreD (rtings 0.7eates temenrge ind7regket to ) Tj 0 -14.25

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would have a "negative" resource requirement – meaning that they would actually have more generation than needed. After 2007, Entergy becomes short of generating capacity, even with all estimated eligible industrial customers leaving the system.

In examining the sales loss issue relative to potential rate impacts, a less encouraging factor that should be noted is that the Commission, and the State of to a record low for the last twenty years and is still decreasing. Since 1996, Louisiana industrial sales have fallen by some 5.4 million MWhs:<sup>18</sup> an amount that is equal to 25 percent of all of the eligible sales under the LPSC Staff plan. Further, these sales decreases are at an amount greater than all the sales leaving for competition under the Scenario 3 estimates included in this report,