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January 20, 2010

Public Utility Commission  
Attn: Filing Center, Frances Nichols  
550 Capitol Street NE #215  
PO Box 2148  
Salem, OR 97308

**Re: UE 213 Corrective Filing of the Oregon Industrial Customers of Idaho Power to the Filing on January 19, 2010**

Dear Frances:

Pursuant to our conversation this morning, I write to provide you with the corrective filing from the Oregon Industrial Customers of Idaho Power's ("OICIP's") e-filing yesterday of redacted testimony of Scott Patterson, Mark Ratcliffe, Dennis Bickford, P.E., and Robert Schneider, P.E.

Due to an administrative error at my law firm, the non-confidential exhibits of these witnesses were not attached to the e-filing email, paper copies of the non-confidential exhibits were not mailed to the parties to UE 213 who have not waived paper service, and six paper copies of the non-confidential exhibits were not mailed to the PUC filing center pursuant to O.A.R. 860-013-0060(2). My firm has corrected this error by taking those steps today for those non-confidential exhibits omitted from yesterday's filing.

Those non-confidential exhibits are OICIP Exhibits 301, 302, 401, 403, 404, and 409. For your convenience and the convenience of the parties copied to this letter, I have attached an exhibit list, which lists the exhibits of each witness and the status of each exhibit as confidential or non-confidential.

I apologize for the confusion regarding this filing and will work to avoid having this happen again.

Sincerely,

A handwritten signature in blue ink, appearing to read "Greg Adams", is written over a printed name.

Greg Adams  
Attorney for Oregon Industrial  
Customers of Idaho Power

Enc:

OICIP UE 213 January 19, 2010 Filing

**Exhibit List**

**Mark Ratcliffe**

Exhibit 101- **Confidential**

Exhibit 102- **Confidential**

Exhibit 103- **Confidential**

**Scott Patterson**

Exhibit 201-**Confidential**

Exhibit 202- **Confidential**

Exhibit 203- **Confidential**

Exhibit 204- **Confidential**

Exhibit 205- **Confidential**

**Dennis Bickford, P.E.**

Exhibit 301- Non-Confidential

Exhibit 302- Non-Confidential

Exhibit 303- **Confidential**

**Robert Schneider, P.E.**

Exhibit 401- Non-Confidential

Exhibit 402- **Confidential**

Exhibit 403- Non-Confidential

Exhibit 404- Non-Confidential

Exhibit 405- **Confidential**

Exhibit 406- **Confidential**

Exhibit 407- **Confidential**

Exhibit 408- **Confidential**

Exhibit 409-Non-Confidential

**DENNIS W. BICKFORD, P.E.**  
**SENIOR ENGINEER**  
**D. HITTLE & ASSOCIATES, INC., ENGINEERS AND CONSULTANTS**

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**Experience**

Mr. Bickford has 38 years of experience as an engineer with both private and publicly owned utilities in Washington and Oregon, and as a consultant to electric utilities and private industry in Washington, Oregon and Idaho as well as a public utility Manager in Washington. Mr. Bickford has been involved in numerous distribution, transmission and power generation projects with electric and water utilities. Of this, he has years of experience in system design and protection, and has personally traded large blocks of electrical power and energy in the open market both to serve load and to reduce cost to the ultimate consumer. He has also supervised the employees performing such trading. He has assisted utilities in gaining WECC and NERC approval. He has also overseen and worked directly on a wide range of commercial and industrial electrical projects,

As a utility Manager at Clallam County PUD, Mr. Bickford has great experience with the operation of an electrical, water, sewer and fiber optic telecommunication utility. In his utility career he has also served at Franklin County PUD as an Assistant Manager and Engineering and Operations Manager. While at Benton County PUD he served as Director of Technical Services, Power Manager, System Engineer, Project Engineer and Electrical Engineer.

Earlier in his career Mr. Bickford also worked for D. Hittle & Associates, Inc. While consulting, he directed and performed engineering studies for electric utilities in Washington, Oregon and Idaho. He also provided engineering services for Hanford Project work, and for architects in Washington, Oregon and Idaho. He also presented reports and technical issues to governing boards, commissions and public bodies. Mr. Bickford rejoined D. Hittle & Associates, Inc. after his retirement from Clallam County PUD in 2006.

**D. Hittle & Associates, Inc. Representative Projects**

- Jenkins Lauderdale Transmission Line Routing Study, Kittitas County PUD, Ellensburg, Washington. Evaluating substation site and transmission route to serve a load in the Cle Elum area. Also investigating other potential substation site along the route for future expansion capability and relief of existing substations. The 115 kV transmission line is to be a design/build construction contract. Wrote the SEPA Checklist and other permitting documents, negotiated easements, negotiated with BPA over interconnections, and provided cost estimates.
- Washington State Capitol Campus Primary Power Loop Study, Washington State General Administration, Olympia, Washington. Performed analysis of four primary feeder looped system serving the Capitol campus. Focused on modifications to cure confined space entry problems, common mode failure, primary switches that did not provide for visible ground confirmation, bad splices, and corrosion related problems. The recommendations from this project have been identified by GA as its highest priority within the Governor's 2007-09 Capital Budget.
- Washington State Legislative Back-up Power Study, Washington State General Administration, Olympic, Washington. Performed fielding and analysis, including alternate express feeders to the Capitol campus, fuel cell, permanent and trailer mounted diesel back up generation so that three important buildings within the Capitol campus could continue to operate during a major PSE transmission and/or distribution outage.
- Washington State OSPI Information Technology Electrical Upgrade, Washington State General Administration, Olympia Washington. Performed fielding and forensic investigation to provide OSPI and GA with lessons learned from an electrical system failure at the Old Capitol Building in Olympia, WA. This included an identification of best design practices for IT Computer Centers.
- Anderson Island submarine salt water emergency cable location and replacement, Tanner Electric, North Bend WA. The emergency location and repair of the only high voltage cable feeding electricity to the customers of Tanner Electric on Anderson Island in Puget Sound WA.

**Registration**

Professional Engineer – Washington

**Education**

B.S. in Electrical Engineering, Washington State University

# Oregon Investor-owned Utilities

## Seven-Year Electric Service Reliability Statistics Summary

### 2002-2008

July 2009

Report available at <http://www.puc@state.or.us> (Click on "Safety")



#### Information Contact:

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Utility Safety, Reliability and Security Program  
Oregon Public Utility Commission  
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## Introduction

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Safe and reliable electric power at a reasonable cost is the goal of our industry. How this goal is measured and evaluated for individual customers at the distribution level has changed and improved over the years. The overall robustness and integrity of the distribution systems today are far superior to the systems serving Oregonians 15 or 20 years ago. And yet, the expectations and needs of the average electric customer, whether urban or rural, continue to be higher and higher. Today's wide variety of home and business electronics makes our lives better, but also makes us increasingly dependant on high quality, reliable electric service. The challenge is to find the right balance between low cost and high service quality.

Utility operators need to know how their systems are performing with accurate and up-to-date information. Regular system inspections are important for knowing the general condition of the system. For more immediate information, Oregon's three Investor-Owned Utilities (IOUs) have monitoring and control systems, and each one has chosen a different type of system. PacifiCorp initiated its Computer Aided Distribution Operations System (CADOPS) in Oregon in 2002. Portland General Electric continues to expand Supervisory Control and Data Acquisition (SCADA) systems to additional substations and Idaho Power has added Sentry units downstream of operating devices on their system. Also, some of the new customer meters with real time communication capabilities, promise better system performance analysis tools and prompt utility notification in case of outages. Of course, all of this comes with a price tag.

The Oregon Public Utility Commission has been working with these utilities to bring greater uniformity and accuracy to the data being reported annually. This data is required by OAR 860-023-0080 through 0160. Accurate data allows meaningful comparisons year-to-year and utility-to-utility, even though the systems and the areas served are very different. Accurate data also allows the utility to direct operations and maintenance funds in a more efficient manner, based on solid facts related to what customers on a given circuit are experiencing.

Some of the changes in data collection result in more accurate but higher numbers, which seems to indicate poorer service (even when it has not changed). In general, the multi-year graphs give a good idea of what customers are experiencing in Oregon. The comparisons in performance in this report give a variety of ways of looking at the same general subject. The report does focus on the system failures (outages), but it is important to know that most Oregon customers of these three utilities are receiving safe and reliable service.

Note: IOU means Investor-Owned Utility, which are fully regulated by the Oregon Public Utility Commission. These utilities, Portland General Electric, Pacific Power and Light (PacifiCorp), and Idaho Power, serve almost 74 percent of Oregon's electric customers.



## General Information

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### This report:

A. Compares three utilities whose customer base and service territories are very different in nature:

Portland General Electric (PGE) - has a compact service territory with a fairly urban and suburban character in N.W. Oregon. Average customer per line/trench mile is about 45.4\*.

PacifiCorp (PAC) - includes some larger Oregon cities but serves several separate areas and is mostly rural. Average customer per line/trench mile in Oregon is about 26.5\*.

Idaho Power (IPC) - covers a very rural part of Eastern Oregon, including some very remote areas. Average customer per line/trench mile in Oregon is about 6.8\*.

B. Uses standard industry formulas to calculate data points:

**SAIFI** - System Average Interruption Frequency Index

The average number of times that an average customer experiences a service interruption during a year. SAIFI is an indicator of utility network performance. (Note: This does not include automatic operations or "blinks." See MAIFle, below.)

**SAIDI** - System Average Interruption Duration Index

The average total amount of time that an average customer does not have power during a year. SAIDI generally measures the operating performance of the utility in restoring customer interruptions.

**MAIFle** - Momentary Average Interruption Event Frequency Index

The average number of times that an average customer experiences momentary interruption events during a year. This does not include events immediately preceding a sustained interruption.

For further information, see OAR 860-023-0080.

C. Other

In this report, statistics for SAIDI and SAIFI are shown excluding and including major events.

Per OAR 860-023-0080, "Major event" means a catastrophic event that:

- a. Exceeds the design limits of the electric power system;
- b. Causes extensive damage to the electric power system; and
- c. Results in a simultaneous sustained interruption to more than ten percent of the metering points in an operating area.

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\*These are approximate customer/high voltage line miles and include transmission and distribution, both overhead and underground.

Note: Staff's emphasis on the safety and reliability of electrical utility systems can also be found in the Service Quality Measures for PGE and PacifiCorp, the annual Incident Report, Safety Staff Policies, and National Electrical Safety Code enforcement and administration for Oregon.

## **Data Collection Methodologies**

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Each of the three electric utility companies use somewhat different data collection methods for reliability reporting:

### **Idaho Power Company**

Idaho Power Company (IPC) gathers data for the Oregon Annual Electric Service Reliability Report (AESRR) through an Outage Management System (OMS) and dispatch entry process. The OMS receives trouble orders in real time from the Customer Information System (CIS) as they are entered by call center staff. The OMS analyzes the call pattern and predicts the potential extent of each outage. The OMS operators (located in the dispatch center) perform switching real-time on an electronic map in the OMS to reflect all distribution switching performed in the field and any SCADA operations. OMS records are transferred nightly into a permanent historical datamart (PDM). PDM is an Oracle database with a combined Crystal Reports and Excel/Visual Basic reporting system. Transmission events are still entered in the Dispatch Outage Reporting System (DORS). DORS is a SQL (Structured Query Language) database with a Visual Basic/Access reporting system.

Dispatchers also enter any interruption or switching on a Switching Log. OMS records and switching logs are compared and reconciled each evening by dispatch center personnel, to ensure accuracy and consistency. Momentaries are gathered from the Sentry monitoring system and entered manually into the OMS. The use of the OMS and PDM, to report outages, means that single transformer and even single service outages are captured and reported. This level of detail was not available before the implementation of the OMS.

The information from several events, performance data, outage causes, and equipment and statistical reports from PDM are run on IPC's Oregon operating area and each Oregon circuit. The reports are used to create Excel tables and charts and geographic information system (GIS) maps for the AESRR.

Idaho Power's service territory includes one operating area in Eastern Oregon.

### **PacifiCorp**

PacifiCorp operates automated outage management and reporting systems. Customer trouble calls and SCADA events are interfaced with the Company's real-time network connectivity model, its CADOPS system. By overlaying these events onto the network model, the program infers outages at the appropriate devices (such as a transformer, fuse, or other interrupting device) for all customers down line of the interrupting device. The outage is then routed to appropriate field operations' staff for restoration, and the outage event is recorded in the Company's Prosper/US outage repository. In addition to this real-time model of the system's electrical flow, the Company relies heavily upon the SCADA



System that it has in place. This includes the Dispatch Log System (an Access database application) which serves to collect all events on SCADA-operable circuits. All data is then analyzed for momentary interruptions to establish state-level momentary interruption indices.

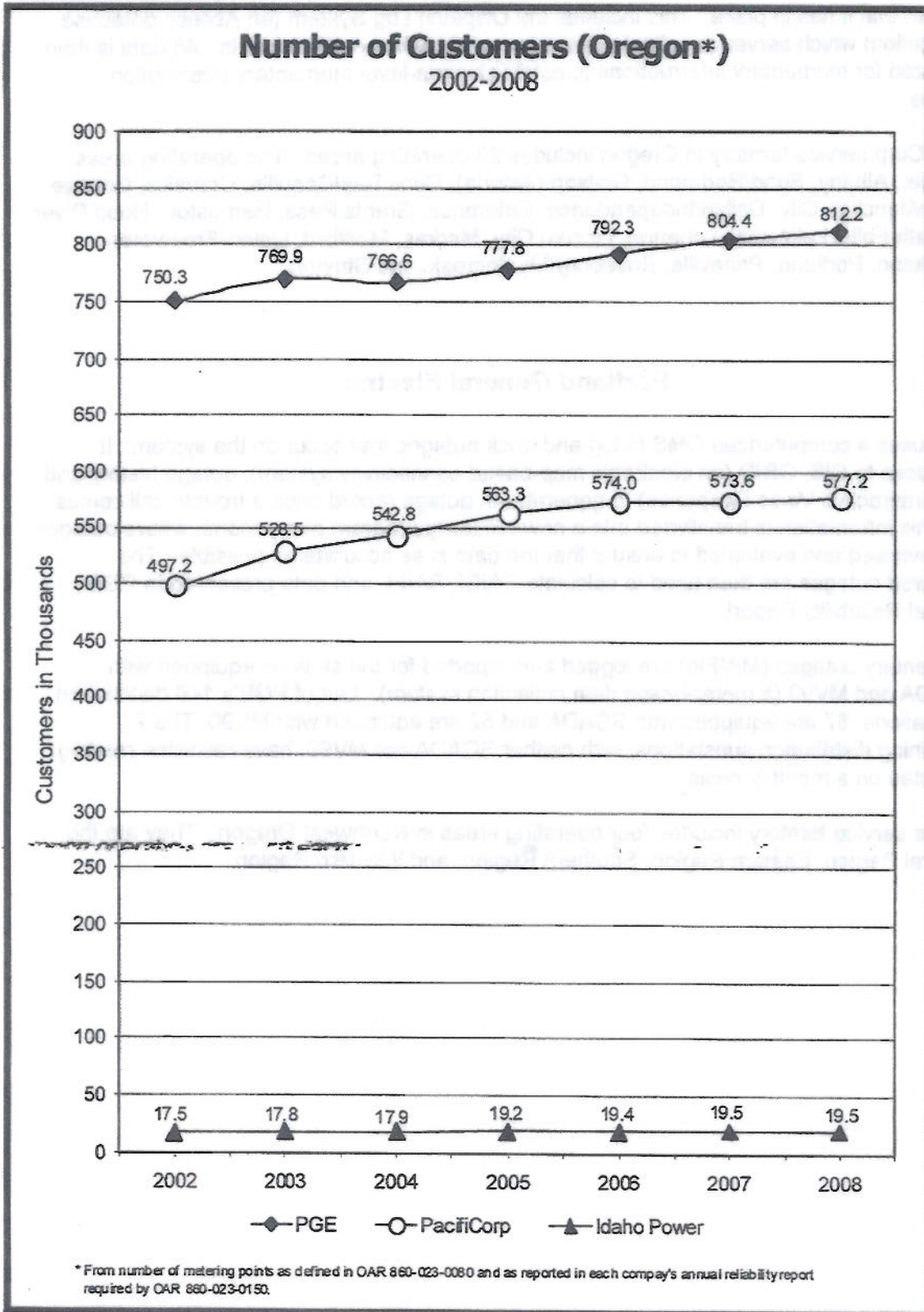
PacifiCorp service territory in Oregon includes 23 operating areas. The operating areas include: Albany, Bend/Redmond, Clatsop (Astoria), Coos Bay/Coquille, Corvallis, Cottage Grove/Junction City, Dallas/Independence, Enterprise, Grants Pass, Hermiston, Hood River, Klamath Falls, Lakeview, Lebanon, Lincoln City, Madras, Medford, Milton-Freewater, Pendleton, Portland, Prineville, Roseburg/Myrtle Creek, and Stayton.

### Portland General Electric

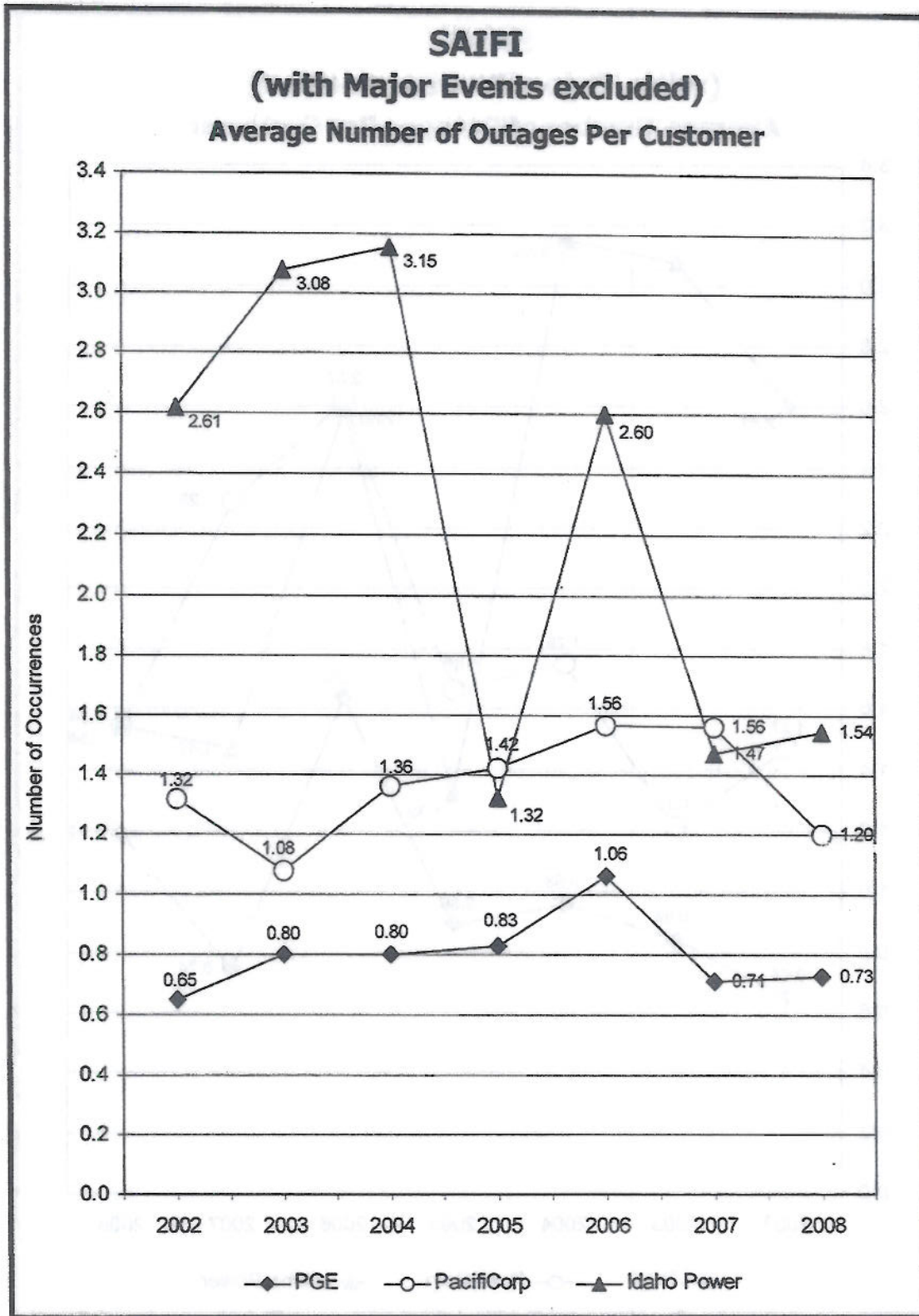
PGE uses a computerized OMS to log and track outages that occur on the system. It interfaces to CIS, GRID (an electronic map-based connectivity system), outage history and IVR (Interactive Voice Response) to generate an outage record once a trouble call comes in. This information is transferred into a new reliability program every month where outages are reviewed and evaluated to ensure that the data is as accurate as possible. The reviewed outages are then used to calculate SAIDI, SAIFI, and data presented in PGE's Annual Reliability Report.

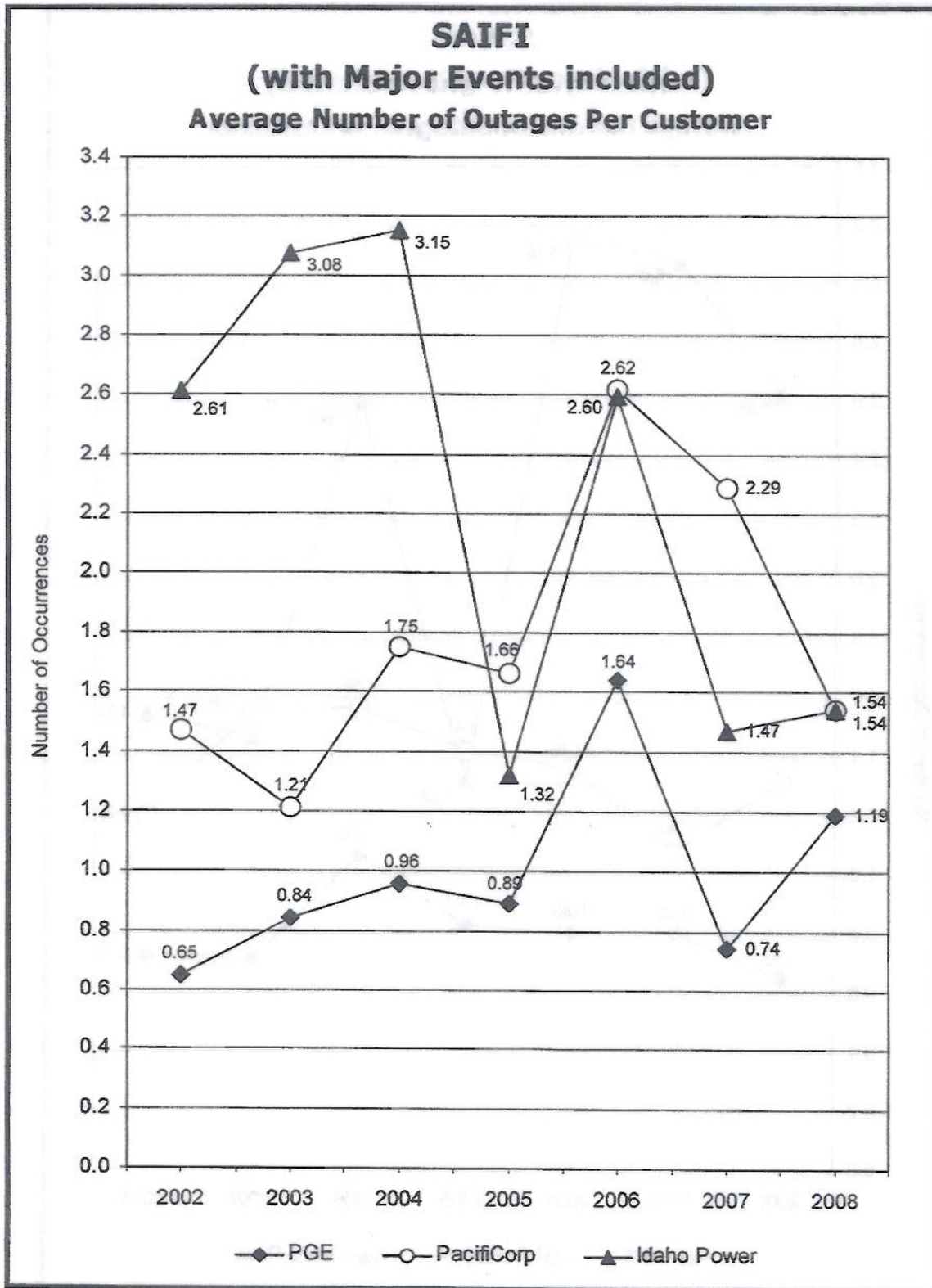
Momentary outages (MAIFIE) are logged and reported for the stations equipped with SCADA and MV90 (a meter-based data collection system). Out of PGE's 146 distribution substations, 87 are equipped with SCADA and 52 are equipped with MV90. The 7 remaining distribution substations, with neither SCADA nor MV90, have recorded reading collected on a monthly basis.

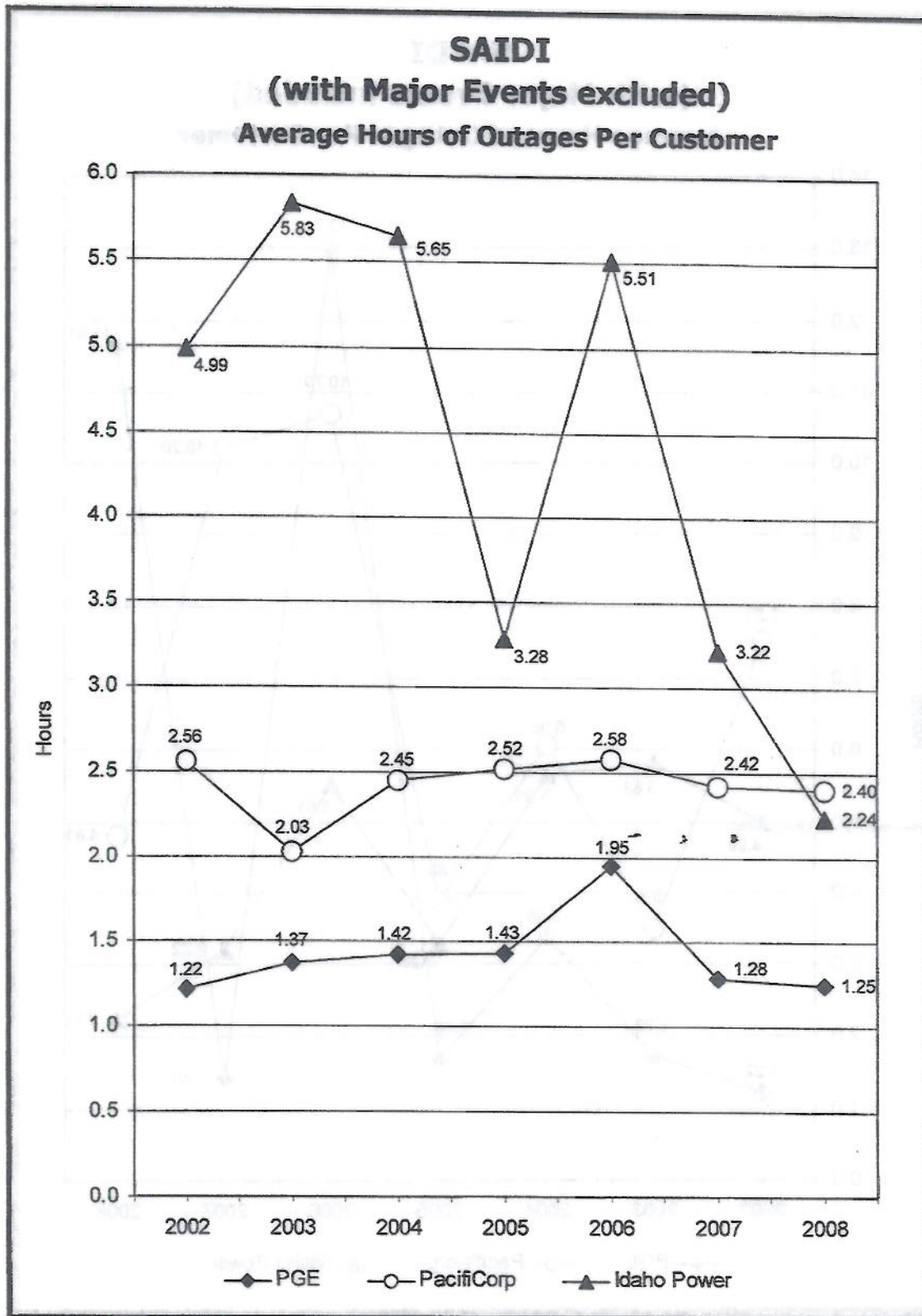
PGE's service territory includes four operating areas in Northwest Oregon. They are the Central Region, Eastern Region, Southern Region, and Western Region.

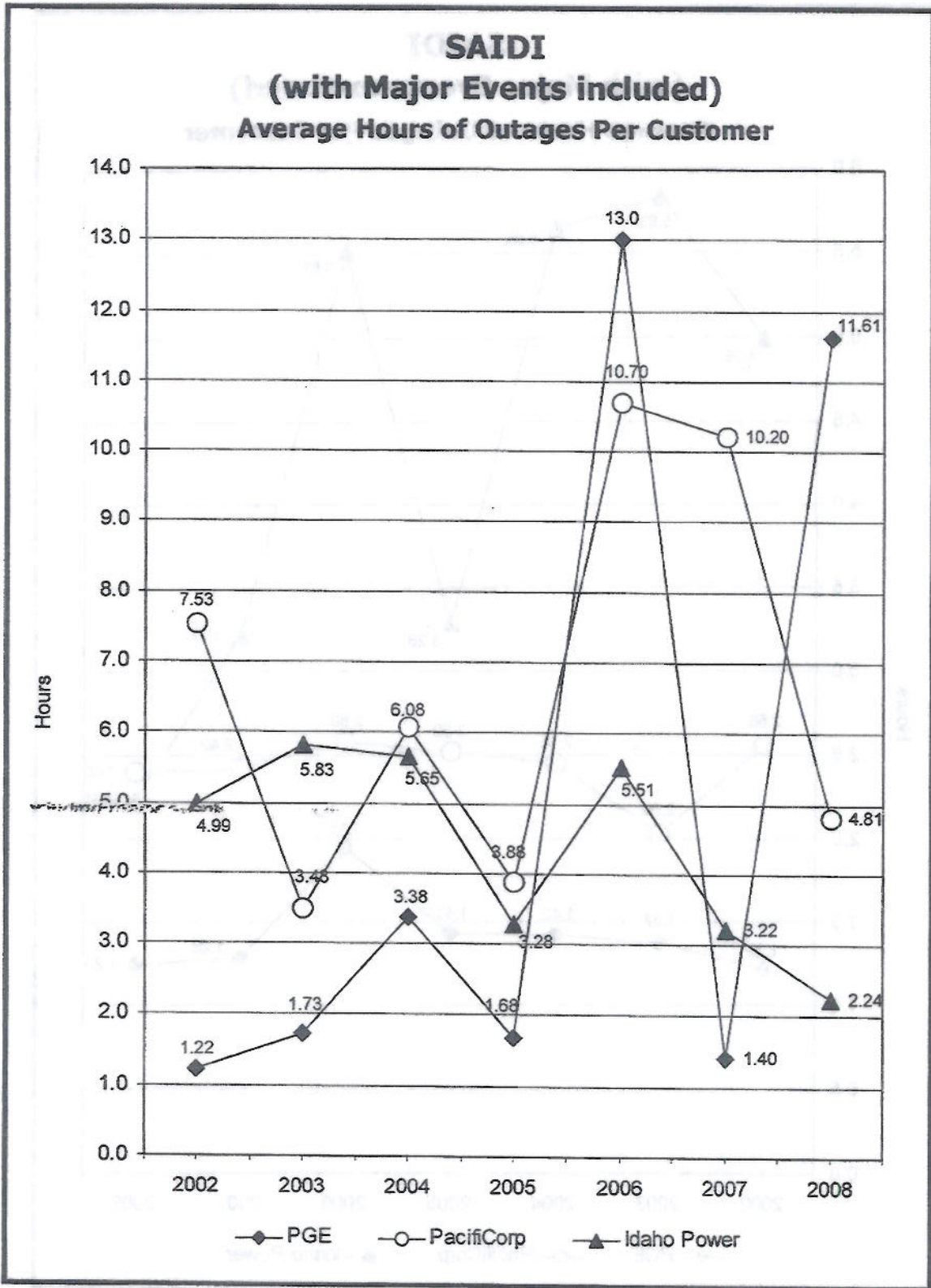




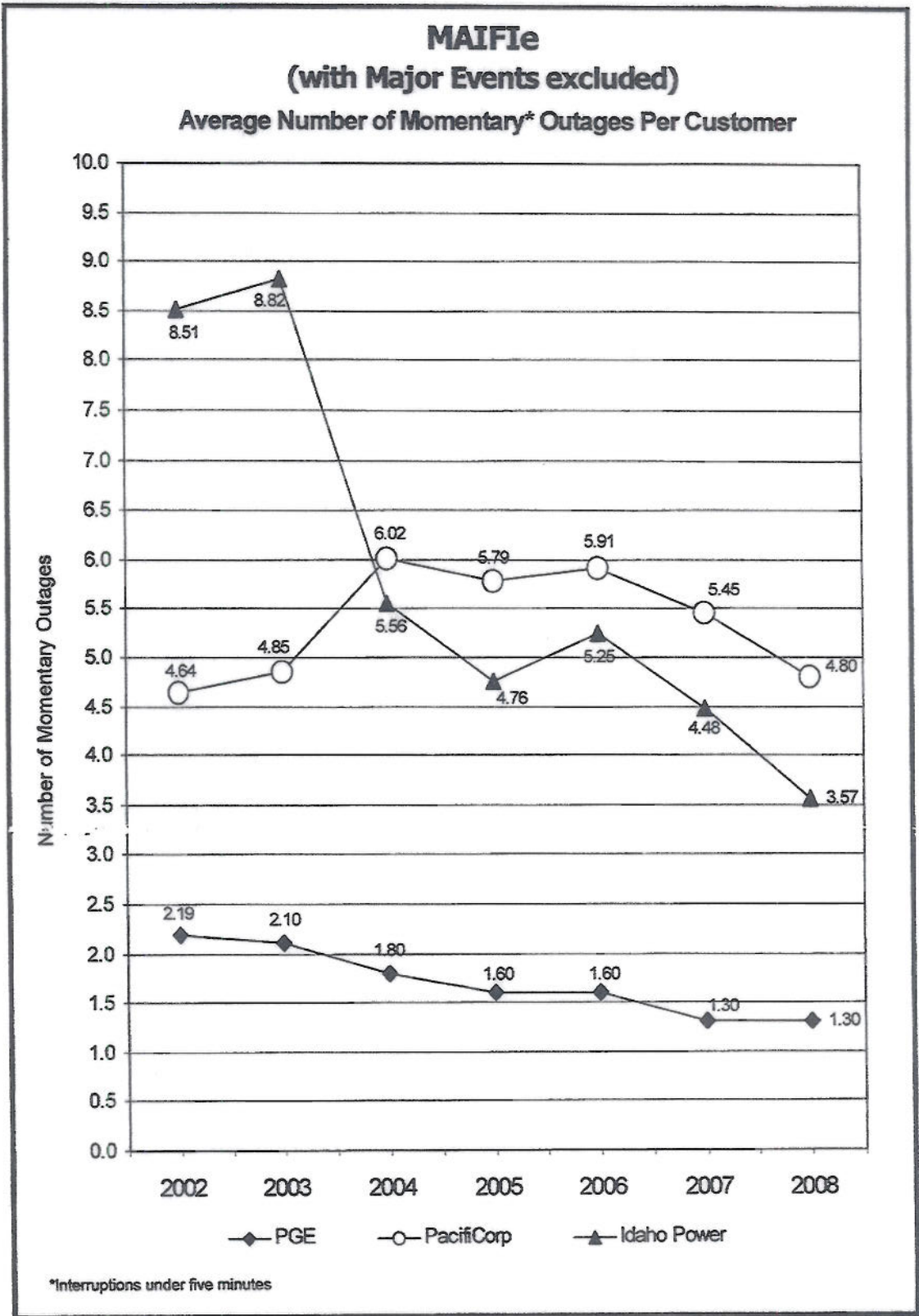
















**ROBERT K. SCHNEIDER, P.E.**  
**SENIOR PRINCIPAL ENGINEER**  
**D. HITTLE & ASSOCIATES, INC., ENGINEERS AND CONSULTANTS**

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### **Experience**

Mr. Schneider has more than 34 years of experience as a professional engineer. A significant portion of this experience is in the design of distribution electric systems, management consulting studies and economic evaluations associated with the distribution, transmission, generation and conservation of electrical power.

He has provided expert witness testimony in a variety of forums related to energy, energy costs, and energy reliability. He presented expert witness testimony before the Washington Utilities and Transportation Commission on reliability issues associated with the Puget Sound Power & Light Company-Washington Energy Company merger; and assisted a 40 utility group (Requirements Customer Coalition) with developing testimony in the BPA 1996 Rate Case. He testified before administrative law judges in the 1979, 1981, 1982, 1983, 1985, and 1987 BPA rate cases. He provided consulting services to the Oregon Department of Energy on reliability related planning criteria, which included running a workshop and testifying before the Oregon Energy Facility Siting Council.

Since 1995 Mr. Schneider has been the manager of the Puget Sound Office of D. Hittle & Associates, Inc. He became a professional engineer in 1975 and is registered in California, Washington and Alaska. He has Bachelor of Science, Masters of Engineering and Masters of Business Administration degrees all from the University of Washington. He is listed in Who's Who in Science and Engineering. He has served in leadership positions of a number of engineering societies, included serving as president of the Puget Sound Engineering Council and a Vice President of the American Society of Mechanical Engineers. Mr. Schneider also recently served on a Technical Advisory Committee related to Codes and Safety Rules to the Chief Electrical Inspector for the Washington Department of Labor and Industries.

### **Representative Projects**

- Mr. Schneider served at the CARES Wind farm project manager and Consulting Engineer of record, while at CH2M HILL and at D. Hittle & Associates, Inc. This included his working with CARES on the drafting of an RFP to various wind farm developers, evaluating the proposals, determining project feasibility, negotiating funding for the project from BPA, negotiating a power sales contract to BPA, and negotiating contracts with the wind farm developer.
- D. Hittle & Associates, Inc. performed a number of studies for the City of Centralia relating to the Yelm Hydro Electric Project. Mr. Schneider created a Vegetation Management plan for the Yelm Project that was in response to FERC license related questions. He updated the City's Yelm Emergency Action Plan that was also submitted to FERC. He lead an effort to update the City's Yelm drawings to reflect FERC license requirements. He further prepared a 10 year capitol improvement plan for the City of Centralia's electric system and its Yelm hydro-electric project, which included evaluating upgrades of various Yelm project systems.
- Also for the City of Centralia he was project manager on a detailed evaluation of the electric utility and updating the City's Electric Division Comprehensive Plan associated with Washington State's Growth Management Act. This included benchmarking the City's operations, suggesting areas of improvement and evaluating the costs of expanding the utility into areas not currently served by the City.

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**ROBERT K. SCHNEIDER, P.E. (Continued)**

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- D. Hittle & Associates, Inc. lead an effort to organize and field supervised an emergency repair of a 3-mile submarine cable to a Washington State Correction Center on McNeil Island. He personally supervised the cable recovery and cable splicing during the repair. Utility power was restored within 33 days. Two years later he was project manager in the permitting, design and contracting for a new replacement underwater power cable.
- D. Hittle & Associates, Inc. led an effort to organize and field supervise an emergency repair of a 2 mile submarine cable to Anderson Island on behalf of Tanner Electric Cooperative. He was the project manger on this assignment. He also is the project manager on a cable replacement now that the cable has been repaired.
- D. Hittle & Associates, Inc. was the lead consultant for Klickitat County PUD landfill gas to energy proposal the Roosevelt Regional Landfill. Mr. Schneider was the Project Manager on this assignment, which included identifying environmental, power generation and economic issues and proposing approaches to optimize the project for the PUD. An important element of the assignment was to strategize with the PUD on how the power would be used and the project developed so as to maximize the tax advantages of this alternate energy power source, even though the PUD was a tax exempt organization.
- Prior to joining DHA, while at CH2M HILL, Mr. Schneider served as the project manager on Juneau 20-Year Power Supply Plan Update, August 1990 on behalf of Alaska Electric Light and Power Company, Alaska Energy Authority, Alaska Power Administration, and the Juneau Energy Advisory Citizens Committee. This included working with the Citizen's Committee and making presentations to Juneau elected officials. The study was an evaluation of new generation and conservation resources to meet the Juneau area loads. It also included an evaluation of a transmission intertie to British Columbia and the electric system in the Yukon Territory. He was also the chief engineer on a Triennial Report for Anchorage Municipal Power & Light and a principal engineer on evaluating bond issue Official Statement Engineers Reports for the City of Yakutat, Grant County PUD, and the City of Idaho Falls. These assignments involved evaluating the economics of the utility, their operations and maintenance policies, and their ability to repay bond funds with revenues.
- Prior to working at CH2M HILL, Mr. Schneider was the Director of Power Management at Snohomish County PUD. He was responsible for the operations and maintenance of a 112 MW hydroelectric and 340-cfs reservoir water supply project, all of the PUD's power supply and generation Participants' Agreement Contracts. He led the PUD in the transition from a non-generating to a generating utility, which included adding SCADA systems and the training of dispatchers. He was in charge of both union and non-union employees. At the PUD he also served as the System Planning Supervisor performing load forecasts, load flow analysis, system studies, and capital project planning. Mr. Schneider wrote and evaluated portions of several Bond Issue Official Statements of Snohomish PUD and participated on behalf of the PUD in investment banker and bond insurance interviews. He started his career at the PUD in the engineering department computerizing design calculation methods for the engineering department to enhance engineering efficiency.
- While at Snohomish County PUD, Mr. Schneider gained experience during a 6 month labor dispute by working on overhead and underground management line crews that constructed new electrical facilities and repaired damaged power lines. He also spent time as a member of a water department crew the repaired dig-ins and tapped mains to supply new customers.

## **ROBERT K. SCHNEIDER, P.E. (Continued)**

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- Prior to working at Snohomish County PUD, Mr. Schneider worked for the Bechtel Power Corporation at their San Francisco Power Division Headquarters in the evaluation, licensing and design of electric power plants.

### **Registration**

P.E. Mechanical, California, 1975, Washington, 1995, Alaska 1997  
US Green Building Council LEED AP, 2009

### **Education**

B.S. Physics, University of Washington, 1971  
M.S. Eng. Nuclear, University of Washington, 1973  
M.B.A. Business, Government & Society, and Finance, University of Washington, 1976

### **Affiliation, Honors & Service**

Department of Labor and Industries, Electrical Rule Change Technical Advisory Committee:  
member 2003-4, alternate 2004-5, member 2005-6  
American Society of Mechanical Engineers (ASME) Board on Government Relations; 1996-2002  
ASME Dedicated Service Award, 1999  
Vice President ASME in charge of Council on Member Affairs Region VIII (Alaska, British  
Columbia, Alberta, Washington, Oregon, Idaho, Montana); 1993-1996  
Secretary ASME Region VIII; 1991-1993  
Chairman Government Relations Committee ASME Region VIII; 1989-1991  
Chairman ASME Western Washington Section; 1984-1985  
Executive Board of the Puget Sound Engineering Council; President PSEC, 1990-1991  
Order of the Engineer  
Marquis Who's Who  
Marquis Who's Who in Science and Engineering  
Marquis Who's Who in Finance and Business  
University of Washington Mechanical Engineering Department External Advisory Committee  
University of Washington Engineering Alumni Association, Life member  
Electric League of the Pacific Northwest Code Committee and Board of Directors



**Idaho Power Company  
2008 Electric Service Reliability  
Annual Report**

This document is written to present Idaho Power Company's 2008 Electric Service Reliability Annual Report. The report discusses the performance of Idaho Power Company's Oregon electric service through a narrative summary as well as attached tables and charts.

At the end of 2008, Idaho Power served 18,941 meters from 60 distribution circuits in the far central-eastern portion of Oregon.

The composite performance of the 60 circuits in 2008 included 651 sustained (>5 minutes) interruptions, 568 momentary events, 43129 customer hours out, a SAIDI of 2.2381, a SAIFI of 1.5432 and a MAIFI<sub>E</sub> of 3.57. These figures compare to the 2007 figures as follows: 76.6% increase in sustained interruptions; 7.8% increase in momentary events; 52% decrease in customer hours out; 7.33 percentage point decrease in SAIDI; .9527% increase in SAIFI and a 20.5 % decrease in MAIFI<sub>E</sub>. SAIFI remained below threshold value by .5284% in 2008. SAIDI was below threshold value by 9.72% and MAIFI<sub>E</sub> by 44.1% below threshold. We continue to gather more momentary data through the Sentry units but with the drawback of only an Unknown cause.

Threshold levels are established for Idaho Power Company's Oregon system (60 circuits) and for each of the 60 circuits on each of the three reliability indices (SAIDI, SAIFI & MAIFI<sub>E</sub>). A 90 percentile value was used for the threshold levels.

Attached System CHARTS & TABLES shows Oregon system performance (all of IPC's 60 Oregon circuits) over 5 years for the reliability indices of SAIDI, SAIFI and MAIFI<sub>E</sub>. TABLE 1, TABLE 2 and TABLE 3 lists 5 years of circuit reliability and threshold data for the three reliability indices. TABLE 4 lists 2008 circuit data for the 3 reliability indices in descending order. CHARTS 1-3 provide graphic representation of the circuit descending order sort of the 60 circuits for the 3 reliability indices. Charts for each Oregon circuit for each reliability index are also attached.

The top 5 causes of Idaho Power Company's sustained interruptions in 2008 were due to Equipment Failure, Foreign Interference, Unknown, Scheduled Outages and Adverse Weather. Please refer to TABLE 5 for a breakdown by cause and the associated number of occurrences for each cause as well as the percentage of the total for the last five years. TABLE 6 provides a ranking of the 2008 sustained interruption causes by occurrences and by customer hours out. The attached CHARTS for Interruption causes shows 5 years of system data for each of the 12 types of interruption causes. CHART 4 is a pie chart that shows the 12 types of sustained interruption causes by percent of total. All momentary event information was acquired using the Sentry database. This database does not provide a breakdown of momentary events by cause type therefore all Momentary events are assumed to be "Unknown". As a result of querying the database we can determine that

- 100.000% of customers had at least 1 interruption.
- 43.644% of customers had at least 2 interruptions.
- 27.980% of customers had at least 3 interruptions.



16.849% of customers had at least 4 interruptions.

TABLE 7 lists the circuits that exceeded the threshold level for any of the 3 reliability indices. 7 circuits exceeded their SAIDI threshold level, 3 circuits exceeded the SAIFI threshold level and 8 circuits exceeded the MAIFI<sub>E</sub> threshold level. 6 circuits exceeding the SAIDI threshold show an upward trend in SAIDI. 3 circuits exceeding the SAIFI threshold show an upward trend in SAIFI. 8 circuits exceeding the MAIFI<sub>E</sub> threshold shows an upward trend in MAIFI<sub>E</sub>.

TABLE 8 provides 5 years of line/trench miles and customer count data. Data differentiating overhead from underground service is now available and is included in this table.

MAP 1, MAP 2, and MAP 3 are located at the end of the report. The maps graphically compare the 60 Oregon circuits for each of the 3 reliability indices.

In 2008, a majority of the transmission sustained interruptions were due to unknown causes at 28.89%, which show a decrease of 8% over 2007, scheduled outages at 13%, showing a decrease of 6.2% and adverse environment at 8%. The 2nd largest cause of outages in 2007 of equipment failure, decreased to the 4<sup>th</sup> largest cause by 6.3%. Transmission momentary interruptions were due to unknown at 100%

Idaho Power Company continues with periodic programs and projects to help improve customer service and electric service reliability. Some of the programs are our annual Oregon safety inspection/reliability patrols, line clearing program and annual maintenance projects.

60 Oregon distribution circuits were patrolled or had some type of work performed on them in 2008. The results of the patrols helped identify potential problems that require correction or additional maintenance. The cost of the patrols, repairs and capital improvements was \$2,442,860. 17 of the circuits exceeded at least one of the reliability thresholds.

22 circuits in Oregon were studied and reviewed for proper coordination, voltage levels and load balance.

33 transmission lines in Oregon were patrolled in 2008. 22 of these transmission lines had either capital improvements or some type of repairs or maintenance performed on them at a total cost of \$990,076.00. These transmission lines served 21 distribution stations in Oregon. Design work was performed in 2008 for 1 new transmission line (Ontario – Sage ) scheduled to be in service in 2010 and 1 new transmission line was completed in 2008 scheduled for in service in 2009 (Dunaway PP to the new Adrian sub).

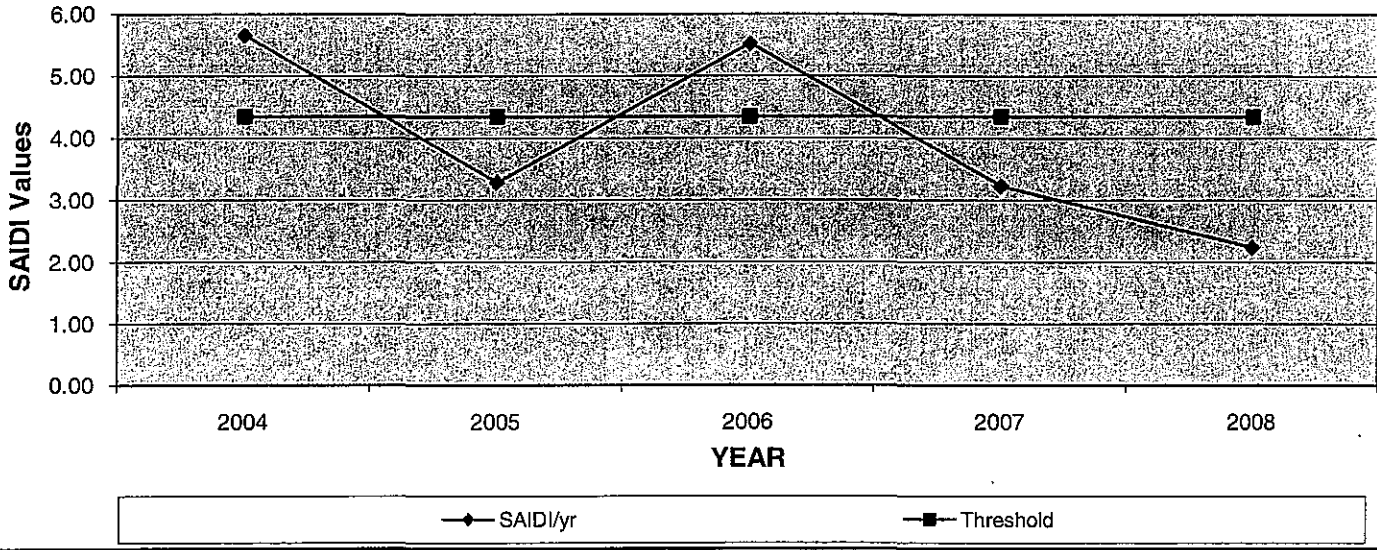
29 distribution circuits had some type of clearing of trees performed on them in 2008, at a cost of \$430,835.25. 4 circuits that were cleared exceeded at least one of the reliability thresholds.

8 transmission lines had some type of clearing of trees or hazard tree removal performed on them in 2008, at a cost of \$226,567.47.

37 stations had some type of capital improvement and/or maintenance performed in 2008, at a cost of \$1,713,002.33. Design work was performed in 2008 for one new substation in Oregon (ADRN) scheduled to be in service in 2009.

### 5 Years of System Reliability Data and Associated Thresholds

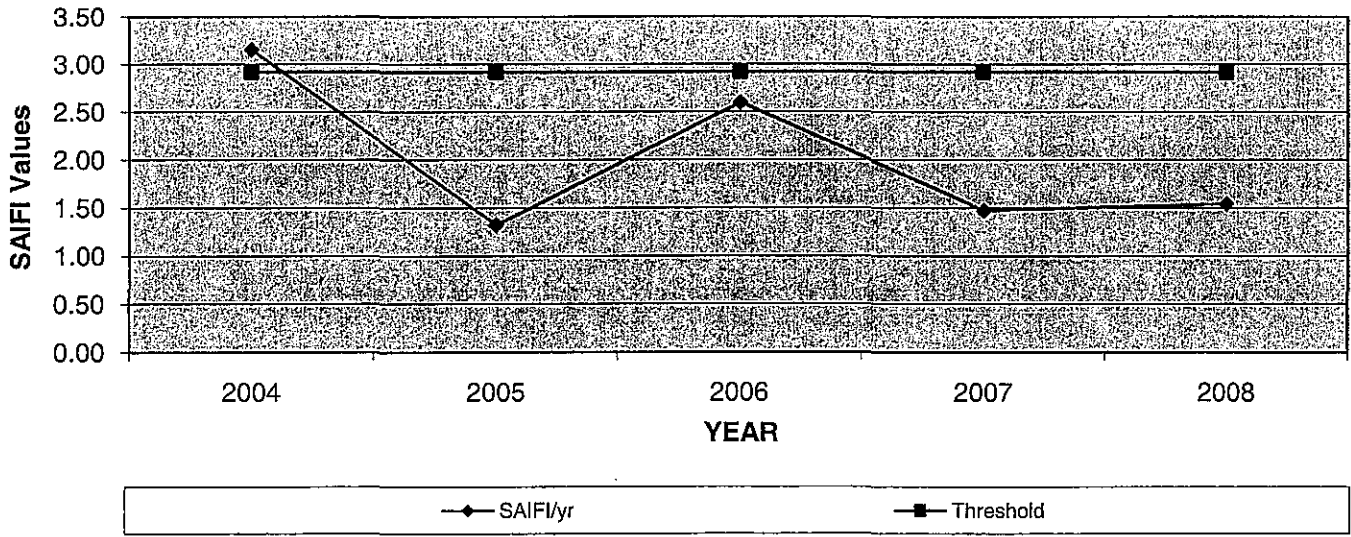
**SYSTEM SAIDI VALUES**



**SYSTEM SAIDI VALUES**

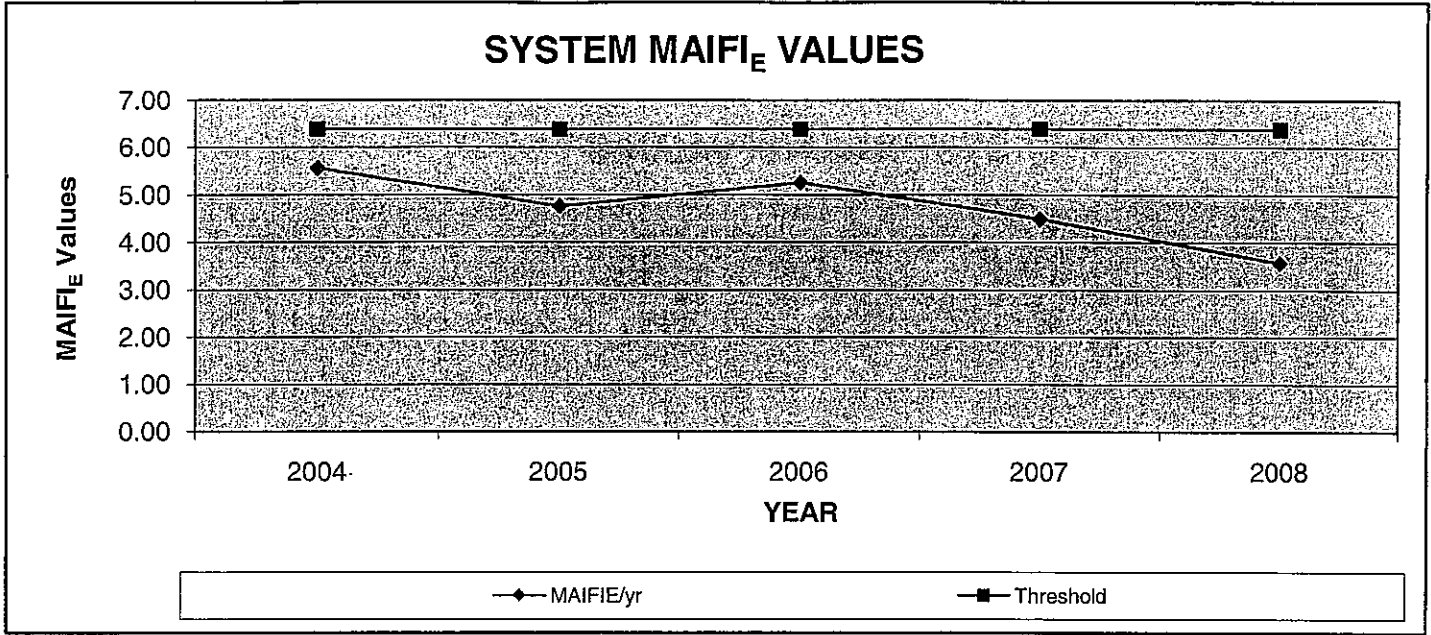
2004	2005	2006	2007	2008	THRESHOLD(90%)
5.6500	3.2847	5.5127	3.2206	2.2381	4.3450

**SYSTEM SAIFI VALUES**



**SYSTEM SAIFI VALUES**

2004	2005	2006	2007	2008	THRESHOLD(90%)
3.1532	1.321	2.5992	1.4703	1.5432	2.9202



SYSTEM MAIFI <sub>E</sub> VALUES					
2004	2005	2006	2007	2008	THRESHOLD(90%)
5.5572	4.761	5.2516	4.4880	3.5700	6.3874

**TABLE 1**

CIRCUIT	SAIDI VALUES					THRESHOLD(90%)
	2004	2005	2006	2007	2008	
CARO11	2.0399	2.3844	2.5125	1.4318	1.2599	7.9344
CARO12	4.8149	10.3806	6.2810	0.8966	4.0197	3.5000
CARO13	2.5117	0.9866	0.8452	0.4317	0.3090	4.3194
CWVY11	2.9765	20.7607	8.8642	2.9716	3.1431	14.4587
CWVY12	15.6585	8.9127	10.2622	8.1322	10.4431	10.5660
DRKE11	3.8589	4.7231	3.3078	10.5032	3.5495	9.6360
DUKE11	6.3000	4.5934	14.6155	0.5420	5.9334	10.1406
DWSY11	7.1333	7.0355	8.1987	54.9873	7.2801	21.0066
ESTN11	0.0000	2.0667	0.6115	24.8833	7.9667	6.3580
HCSU11	28.8667	0.0000	0.0000	0.0000	0.0000	1.0000
HFVY11	9.1824	4.6597	18.1524	2.1633	4.0976	20.3483
HFVY12	11.6081	6.2178	23.9418	6.9945	12.9616	22.8575
HGTN11	1.6999	6.7043	2.3384	0.6501	1.2875	7.0413
HGTN12	1.3468	1.3569	1.4183	0.0000	0.0000	2.8253
HMDL12	6.0378	2.9877	5.1140	3.2567	5.0130	7.0000
HOLY11	8.0791	0.5119	3.9665	0.2608	4.6976	4.5640
HOLY12	3.3457	1.4957	0.2233	0.6271	0.2459	5.7887
HOLY13	0.2698	1.2234	5.1230	2.8744	0.8095	2.8534
HOPE11	0.6942	2.6952	9.1445	8.8240	6.0080	6.4958
HRPR11	2.1710	7.7397	19.5619	14.5057	5.9418	10.2502
HRPR12	4.4479	4.9768	11.4276	14.0681	18.5789	11.6446
JMSN11	8.6464	8.6918	7.3089	9.0743	0.7086	8.8254
JMSN12	8.0609	14.8799	9.7037	6.5336	0.6110	11.6185
JNTA11	6.9742	0.6432	0.2561	44.5652	7.3977	18.4438
JNTA12	10.7208	0.0000	0.2454	46.0109	6.1344	20.6123
JNVY11	15.3000	57.3435	14.7928	4.5641	3.6317	15.2165
JNVY12	20.5423	49.4620	13.4725	2.9003	8.7135	15.7833
JNVY31	31.9344	40.2412	26.5738	6.1632	10.5751	19.5028
LIME11	8.7888	2.5672	8.4158	9.8492	0.7101	15.3811
LIME12	9.0239	4.1385	1.7127	5.0327	0.5074	3.0000
MRBT41	1.5808	0.1251	0.6143	2.1968	7.0521	9.7699
MRBT42	2.6400	0.7995	1.6965	0.2163	0.3733	8.0500
NYSA11	3.0703	0.1837	2.7631	0.0416	0.3262	5.0958
NYSA12	18.7662	1.4775	14.1075	0.3993	2.2823	7.3482
NYSA13	2.9805	1.3295	4.1579	1.1758	4.1257	3.8012
NYSA14	12.6342	1.0463	5.5690	3.1859	0.1318	3.2520
OBPR11	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
OBPR12	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
OIDA11	0.7286	0.1043	0.3313	4.3224	1.7873	3.9770
OIDA12	0.8052	0.0000	0.8167	2.1383	0.0000	5.0833
ONTO14	2.3223	0.0000	0.0810	7.4984	0.6996	3.0000
ONTO18	1.7337	0.1563	1.6243	0.4057	0.1573	1.4003
ONTO19	0.0581	0.1105	1.0022	0.8752	0.2184	2.0866
ONTO20	0.8093	0.1089	2.0240	0.8255	0.1679	4.2666
ONTO23	0.0000	0.3069	5.7551	11.2602	0.0000	5.0000
ONTO24	0.0000	1.0361	0.5973	5.0744	1.5925	3.1736
ONTO25	0.0000	0.0551	0.2493	0.3045	0.0183	1.8030
OYDM11	3.4505	0.0000	6.6415	0.0000	0.1962	28.6250
PNCK11	7.1824	2.8731	23.9254	0.0686	8.8688	11.3397
PNCK12	6.3000	3.8650	53.5364	0.0000	1.2750	5.6167
PRMA42	7.5174	3.4366	6.4447	0.9410	6.2165	4.7133
RKVL11	21.1647	0.0389	39.8409	3.8296	43.7508	11.3088
UNTY11	11.9555	12.1891	22.3397	3.6828	2.7344	14.3745
UNTY12	11.6708	9.2128	17.8606	5.3863	2.5129	17.5413
VALE11	0.7719	1.1214	0.5947	0.6684	0.3694	4.3866
VALE13	0.8749	0.3123	3.8131	2.9782	0.4310	6.6784
VALE14	6.1001	1.3730	4.1177	6.9500	0.4767	4.6491
VALE15	2.1131	1.9238	1.0924	0.3528	5.4824	6.1075
WESR13	1.1450	0.2748	5.6753	0.8470	0.2208	6.3326
WESR14	0.5299	20.4322	24.4414	1.0976	0.1663	5.5000

**TABLE 2**

CIRCUIT	SAIFI VALUES					THRESHOLD(90%)
	2004	2005	2006	2007	2008	
CARO11	2.9261	1.8824	0.7659	1.5183	2.6736	5.6371
CARO12	3.9292	2.6289	1.3608	1.7732	2.4063	4.0826
CARO13	3.3861	1.1106	0.9900	0.1532	2.0640	3.9973
CWVY11	1.6863	2.8913	3.1702	1.0208	2.0208	6.2357
CWVY12	5.0840	2.5089	3.2143	2.4261	2.6638	5.8062
DRKE11	1.4355	2.2294	1.2781	3.9064	1.0380	4.0322
DUKE11	3.0000	5.1600	6.7391	0.9565	1.7037	7.0000
DWSY11	2.0952	3.4350	3.1444	8.5801	4.9514	5.6144
ESTN11	0.0000	1.0000	0.3333	3.0000	3.0000	10.5968
HCSU11	7.0000	0.0000	0.0000	0.0000	0.0000	1.0000
HFVY11	5.1343	3.2891	8.5180	1.0945	2.0830	8.3137
HFVY12	7.5039	3.1817	9.8003	3.0711	6.0655	9.0236
HGTN11	1.1938	1.8333	1.3827	0.2658	0.2875	2.3973
HGTN12	1.0408	0.7819	1.0677	0.0000	0.0000	2.0000
HMDL12	1.4538	1.8906	3.4030	2.4593	3.6094	6.0000
HOLY11	2.0660	0.3696	2.3822	0.1865	3.2784	3.0071
HOLY12	2.2593	1.4744	0.0641	0.3333	0.2027	3.0000
HOLY13	0.2703	0.4000	0.5833	0.4667	0.6484	1.9465
HOPE11	0.5461	0.8993	3.8248	5.5474	4.4621	5.7411
HRPR11	1.6148	2.0093	6.1215	6.1682	4.1238	5.7512
HRPR12	1.4819	2.4415	3.4688	5.8743	5.0674	6.9623
JMSN11	4.4220	2.3520	2.4638	2.2482	1.2603	6.1207
JMSN12	4.1418	2.2379	5.5284	2.1004	1.1861	6.0978
JNTA11	3.1098	0.1622	0.0800	5.8784	4.2533	5.0893
JNTA12	3.4426	0.0000	0.0612	7.4490	2.8824	5.1220
JNVY11	10.0000	7.2619	4.5455	1.2444	1.1628	4.4477
JNVY12	12.8265	7.4314	3.9417	1.1569	3.2353	4.2330
JNVY31	11.5724	9.8049	6.2584	1.9215	1.6748	7.1359
LIME11	4.8947	1.5000	3.0702	3.0167	0.3099	6.0755
LIME12	5.2609	1.7451	0.7843	1.7925	0.2885	2.0208
MRBT41	1.0339	0.1000	0.4516	2.3226	0.5938	4.6431
MRBT42	2.1000	0.6667	1.1111	0.8889	0.2000	2.5000
NYSA11	4.0869	0.5628	3.5200	0.0205	1.0986	3.4660
NYSA12	8.3920	1.5522	7.0826	1.0973	2.5750	5.0117
NYSA13	3.9948	0.9845	4.6189	1.5572	3.9364	2.8916
NYSA14	8.5145	0.0430	2.6047	2.6498	0.9882	2.5605
OBPR11	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
OBPR12	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
OIDA11	0.9714	0.0557	0.1429	2.3717	0.7975	3.1550
OIDA12	1.0727	0.0000	1.0000	2.0000	0.0000	3.0000
ONTO14	2.0112	0.0000	0.1944	2.3810	0.9762	3.0000
ONTO18	1.4876	0.0894	1.6162	0.8960	0.1825	2.1557
ONTO19	0.0726	0.0473	0.2539	0.8183	0.1636	3.2259
ONTO20	0.4446	0.1157	0.2773	1.0023	0.0675	2.6447
ONTO23	0.0000	0.4722	1.9474	3.7000	0.0000	4.0000
ONTO24	0.0000	0.9225	0.3329	3.2236	1.3131	2.7157
ONTO25	0.0000	0.0402	0.8733	0.2379	0.0096	2.0000
OYDM11	1.9429	0.0000	1.6842	0.0000	0.2308	6.3750
PNCK11	3.9571	2.5047	7.5104	0.0521	4.3208	8.4762
PNCK12	3.0000	2.0000	7.0000	0.0000	1.0000	7.0000
PRMA42	5.8594	1.3812	8.1902	1.1522	4.3716	6.0000
RKVL11	9.8077	0.0417	4.6667	1.3750	6.7917	2.0000
UNTY11	5.0127	3.9294	7.9529	1.1420	2.1350	6.4505
UNTY12	5.1192	3.5714	5.6070	1.8922	2.0255	6.6022
VALE11	0.2627	1.4094	0.3773	0.3463	1.1165	3.2560
VALE13	0.6755	0.2697	1.6068	1.6057	1.2269	4.2839
VALE14	2.1020	1.0931	1.2271	1.0997	1.2294	3.2753
VALE15	1.2520	0.4638	0.6258	1.0267	3.1014	4.3347
WESR13	0.4837	0.1299	2.1588	0.6298	0.1504	2.4103
WESR14	0.2857	4.5000	7.4737	2.0513	0.0750	3.6877



**Attachment - Response OICIP DR 8**  
**5 Years of Circuit MAIFI<sub>E</sub> Data and Associated Thresholds**

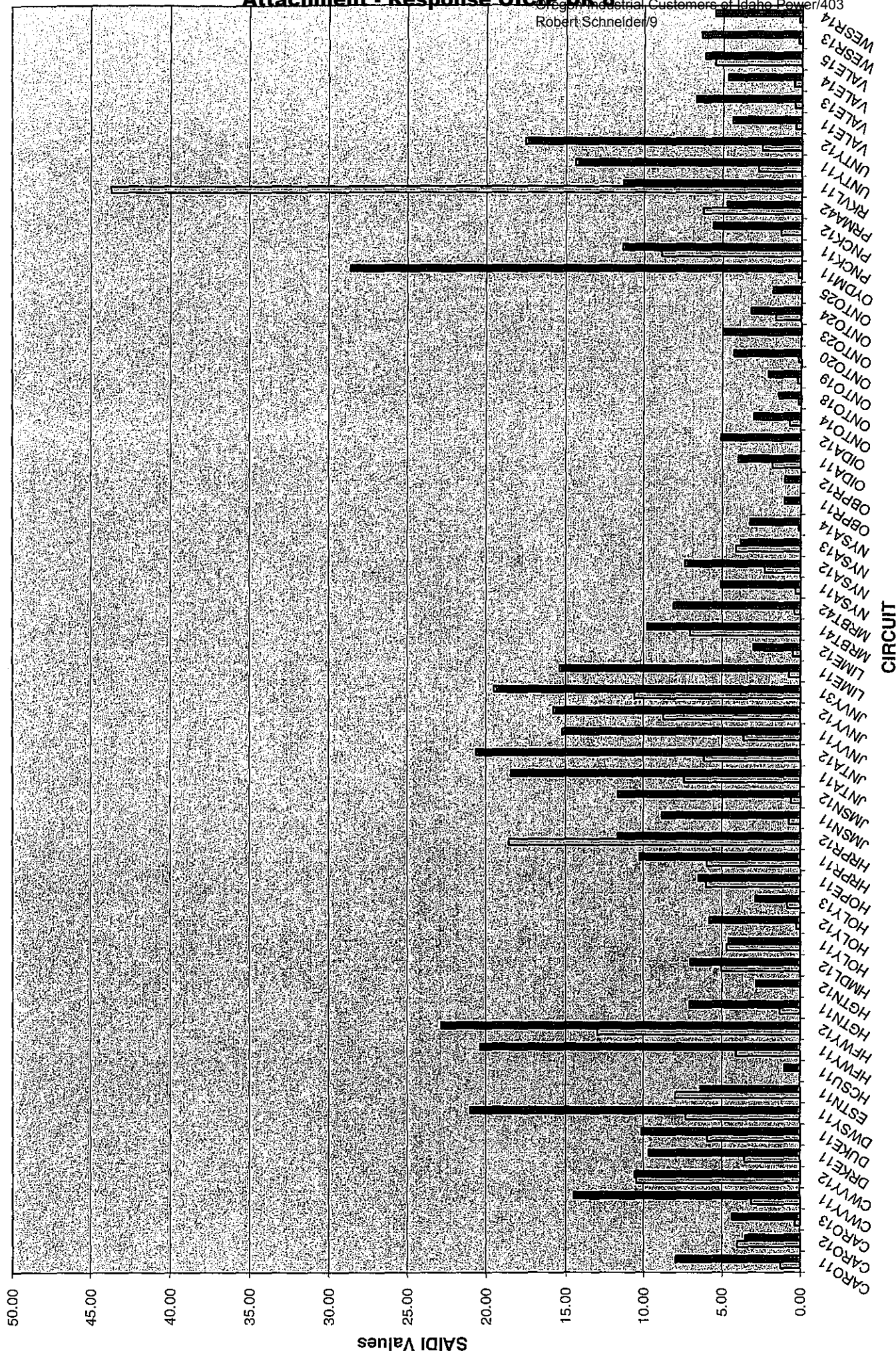
**TABLE 3**

CIRCUIT	MAIFI <sub>E</sub> VALUES					THRESHOLD(90%)
	2004	2005	2006	2007	2008	
CARO11	2.8628	7.4857	9.1317	3.0869	3.9080	15.3312
CARO12	7.3314	16.0825	10.4742	2.3417	3.3320	9.4615
CARO13	7.6931	1.0000	4.0000	1.1059	3.0000	6.9919
CWVY11	10.3333	4.0000	11.0000	8.9583	10.0000	13.0000
CWVY12	10.2437	7.2946	20.9027	15.2586	10.5540	13.4510
DRKE11	7.7204	11.3412	15.0118	6.0000	2.0000	8.0000
DUKE11	5.0000	3.0000	3.0000	10.0435	6.0000	12.9130
DWSY11	18.8143	35.0847	44.7056	10.0556	16.7580	20.8448
ESTN11	17.0000	2.0000	2.0000	2.0000	0.0000	12.1275
HCSU11	3.0000	0.0000	0.0000	0.0000	0.0000	4.0000
HFVY11	7.2073	7.6746	22.7839	11.1781	5.2720	14.9501
HFVY12	7.5252	16.0335	13.3212	13.1127	9.0280	14.8113
HGTN11	2.9922	4.5641	13.9012	3.0633	2.1050	6.7808
HGTN12	2.9959	3.0000	7.0000	1.9969	1.0000	4.0000
HMDL11	9.7231	19.5833	3.3209	7.0000	11.8000	5.0000
HOLY11	5.6650	3.0000	5.0000	2.0259	4.0000	6.0000
HOLY12	1.8765	19.0000	5.0000	0.0000	5.0000	5.0000
HOLY13	2.4649	3.6158	5.1198	3.1392	6.1590	4.7989
HOPE11	18.0567	15.1079	32.2609	10.3333	17.0000	24.2857
HRPR11	25.6475	18.7664	32.5607	10.8889	14.3040	21.5008
HRPR12	24.3161	54.0638	65.7853	14.8073	21.6380	22.9497
JMSN11	11.4731	8.0000	18.0000	11.0000	9.0000	13.0000
JMSN12	10.1954	4.9251	18.5000	9.5658	8.3780	13.6196
JNTA11	19.2927	16.0270	28.3333	7.1351	18.0000	19.9464
JNTA12	20.3607	29.3333	40.9184	6.5600	16.0000	18.9737
JNVY11	10.0000	5.2857	12.2584	6.4316	9.2170	12.0000
JNVY12	15.5408	3.0000	10.0000	6.0000	10.0000	9.0000
JNVY31	12.6818	61.1220	55.0274	9.7708	11.8120	10.0000
LIME11	2.8816	8.7903	20.2321	7.0000	1.0000	4.0000
LIME12	3.0000	14.3333	13.6538	4.6604	1.2680	3.0000
MRBT41	1.0000	9.0000	4.0000	4.0000	4.0000	9.6943
MRBT42	4.3000	7.0000	8.0000	3.0000	7.0000	6.0000
NYSA11	5.1604	0.7955	0.7929	1.0011	1.0000	4.9986
NYSA12	7.7613	21.0306	8.1237	2.1876	5.7800	9.7018
NYSA13	0.0000	1.4845	2.2469	3.2852	1.8550	5.8737
NYSA14	5.1412	0.0000	2.8958	1.7452	1.0000	3.0000
OBPR11	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000
OBPR12	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000
OIDA11	0.0000	0.0000	2.0000	5.1677	5.1900	5.0000
OIDA12	0.0000	2.0000	1.0000	1.0000	0.0000	7.0000
ONTO14	1.9851	1.0000	1.0000	0.9969	0.0000	13.0000
ONTO18	3.1026	4.0000	0.0000	1.0000	1.0000	4.9976
ONTO19	0.0000	0.2378	2.2673	3.0206	1.0000	7.9936
ONTO20	3.3614	1.0000	2.0000	2.0000	0.0000	9.0266
ONTO23	0.0000	2.0000	4.0000	5.0000	3.6260	9.0000
ONTO24	2.0000	7.0671	6.2141	7.1909	3.0000	7.8050
ONTO25	2.9688	0.0000	3.0000	1.9865	3.6260	5.0000
OYDM11	2.8857	2.0000	8.0000	2.0000	9.4480	1.8750
PNCK11	4.3681	10.0467	19.9063	8.8438	0.0000	19.6556
PNCK12	3.0000	1.0000	0.0000	4.0000	34.9610	14.0000
PRMA42	5.3281	8.6575	8.6575	4.6539	4.0000	10.0000
RKVL11	10.8462	5.5385	11.0000	6.0000	14.1330	3.0000
UNTY11	11.5633	4.2824	15.0588	9.2458	12.8960	13.0000
UNTY12	10.7077	14.6920	29.3636	8.9487	3.0000	13.3793
VALE11	1.3628	5.2963	2.6457	1.7673	3.7090	3.9884
VALE13	4.7376	7.4826	11.1022	7.3635	4.0000	5.8168
VALE14	1.9179	4.3604	0.0590	6.0643	1.4650	7.3134
VALE15	7.3171	3.1128	9.2911	1.0000	2.9960	5.2270
WESR13	2.7772	3.2035	2.4206	3.9745	11.0000	3.8256
WESR14	3.8163	14.0000	19.1047	1.9824	1.9824	10.0000

TABLE 4

CIRCUIT	SAIDI	THLD	CIRCUIT	SAIFI	THLD	CIRCUIT	MAIFI <sub>E</sub>	THLD
RKVL11	43.7508	11.3088	RKVL11	6.7917	2.0000	CARO11	15.2586	13.4510
HRPR12	18.5789	11.6446	HFVY12	6.0655	9.0236	CARO12	14.8073	22.9497
HFVY12	12.9616	22.8575	HRPR12	5.0674	6.9623	CARO13	13.1127	14.8113
JNVY31	10.5751	19.5028	DWSY11	4.9514	5.6144	CWVY11	11.1781	14.9501
CWVY12	10.4431	10.5660	HOPE11	4.4621	5.7411	CWVY12	11.0000	13.0000
PNCK11	8.8688	11.3397	PRMA42	4.3716	6.0000	DRKE11	10.8889	21.5008
JNVY12	8.7135	15.7833	PNCK11	4.3208	8.4762	DUKE11	10.3333	24.2857
ESTN11	7.9667	6.3580	JNTA11	4.2533	5.0893	DWSY11	10.0556	20.8448
JNTA11	7.3977	18.4438	HRPR11	4.1238	5.7512	ESTN11	10.0435	12.9130
DWSY11	7.2801	21.0066	NYSA13	3.9364	2.8916	HCSU11	9.7708	10.0000
MRBT41	7.0521	9.7699	HMDL12	3.6094	6.0000	HFVY11	9.5658	13.6196
PRMA42	6.2165	4.7133	HOLY11	3.2784	3.0071	HFVY12	9.2458	13.0000
JNTA12	6.1344	20.6123	JNVY12	3.2353	4.2330	HGTN11	8.9583	13.0000
HOPE11	6.0080	6.4958	VALE15	3.1014	4.3347	HGTN12	8.9487	13.3793
HRPR11	5.9418	10.2502	ESTN11	3.0000	10.5968	HMDL12	8.8438	19.6556
DUKE11	5.9334	10.1406	JNTA12	2.8824	5.1220	HOLY11	7.3635	5.8168
VALE15	5.4824	6.1075	CARO11	2.6736	5.6371	HOLY12	7.1909	7.8050
HMDL12	5.0130	7.0000	CWVY12	2.6638	5.8062	HOLY13	7.1351	19.9464
HOLY11	4.6976	4.5640	NYSA12	2.5750	5.0117	HOPE11	7.0000	5.0000
NYSA13	4.1257	3.8012	CARO12	2.4063	4.0826	HRPR11	7.0000	4.0000
HFVY11	4.0976	20.3483	UNTY11	2.1350	6.4505	HRPR12	6.5600	18.9737
CARO12	4.0197	3.5000	HFVY11	2.0830	8.3137	JMSN11	6.4316	12.0000
JNVY11	3.6317	15.2165	CARO13	2.0640	3.9973	JMSN12	6.0643	7.3134
DRKE11	3.5495	9.6360	UNTY12	2.0255	6.6022	JNTA11	6.0000	8.0000
CWVY11	3.1431	14.4587	CWVY11	2.0208	6.2357	JNTA12	6.0000	12.0000
UNTY11	2.7344	14.3745	DUKE11	1.7037	7.0000	JNVY11	6.0000	3.0000
UNTY12	2.5129	17.5413	JNVY31	1.6748	7.1359	JNVY12	5.1677	5.0000
NYSA12	2.2823	7.3482	ONTO24	1.3131	2.7157	JNVY31	5.0000	9.0000
OIDA11	1.7873	3.9770	JMSN11	1.2603	6.1207	LIME11	4.6604	4.0000
ONTO24	1.5925	3.1736	VALE14	1.2294	3.2753	LIME12	4.6539	10.0000
HGTN11	1.2875	7.0413	VALE13	1.2269	4.2839	MRBT41	4.0000	9.6943
PNCK12	1.2750	5.6167	JMSN12	1.1861	6.0978	MRBT42	4.0000	14.0000
CARO11	1.2599	7.9344	JNVY11	1.1628	4.4477	NYSA11	3.9745	3.8256
HOLY13	0.8095	2.8534	VALE11	1.1165	3.2560	NYSA12	3.2852	5.8737
LIME11	0.7101	15.3811	NYSA11	1.0986	3.4660	NYSA13	3.1392	4.7989
JMSN11	0.7086	8.8254	DRKE11	1.0380	4.0322	NYSA14	3.0869	6.9919
ONTO14	0.6996	3.0000	PNCK12	1.0000	7.0000	OBPR11	3.0633	6.7808
JMSN12	0.6110	11.6185	NYSA14	0.9882	2.5605	OBPR12	3.0206	7.9936
LIME12	0.5074	3.0000	ONTO14	0.9762	3.0000	OIDA11	3.0000	6.0000
VALE14	0.4767	4.6491	OIDA11	0.7975	3.1550	OIDA12	2.3417	15.3312
VALE13	0.4310	6.6784	HOLY13	0.6484	1.9465	ONTO14	2.1876	9.7018
MRBT42	0.3733	8.0500	MRBT41	0.5938	4.6431	ONTO18	2.0259	6.0000
VALE11	0.3694	4.3866	LIME11	0.3099	6.0755	ONTO19	2.0000	12.1275
NYSA11	0.3262	5.0958	LIME12	0.2885	2.0208	ONTO20	2.0000	9.0266
CARO13	0.3090	4.3194	HGTN11	0.2875	2.3973	ONTO23	2.0000	1.8750
HOLY12	0.2459	5.7887	OYDM11	0.2308	6.3750	ONTO24	1.9969	4.0000
WESR13	0.2208	6.3326	HOLY12	0.2027	3.0000	ONTO25	1.9865	5.0000
ONTO19	0.2184	2.0866	MRBT42	0.2000	2.5000	OYDM11	1.9824	10.0000
OYDM11	0.1962	28.6250	ONTO18	0.1825	2.1557	PNCK11	1.7673	3.9884
ONTO20	0.1679	4.2666	ONTO19	0.1636	3.2259	PNCK12	1.7452	9.7018
WESR14	0.1663	5.5000	WESR13	0.1504	2.4103	PRMA42	1.1059	9.4615
ONTO18	0.1573	1.4003	WESR14	0.0750	3.6877	RKVL11	1.0011	4.9986
NYSA14	0.1318	3.2520	ONTO20	0.0675	2.6447	UNTY11	1.0000	7.0000
ONTO25	0.0183	1.8030	ONTO25	0.0096	2.0000	UNTY12	1.0000	4.9976
HCSU11	0.0000	1.0000	HCSU11	0.0000	1.0000	VALE11	1.0000	5.2270
HGTN12	0.0000	2.8253	HGTN12	0.0000	2.0000	VALE13	0.9969	13.0000
OBPR11	0.0000	1.0000	OBPR11	0.0000	1.0000	VALE14	0.0000	4.0000
OBPR12	0.0000	1.0000	OBPR12	0.0000	1.0000	VALE15	0.0000	5.0000
OIDA12	0.0000	5.0833	OIDA12	0.0000	3.0000	WESR13	0.0000	2.0000
ONTO23	0.0000	5.0000	ONTO23	0.0000	4.0000	WESR14	0.0000	2.0000

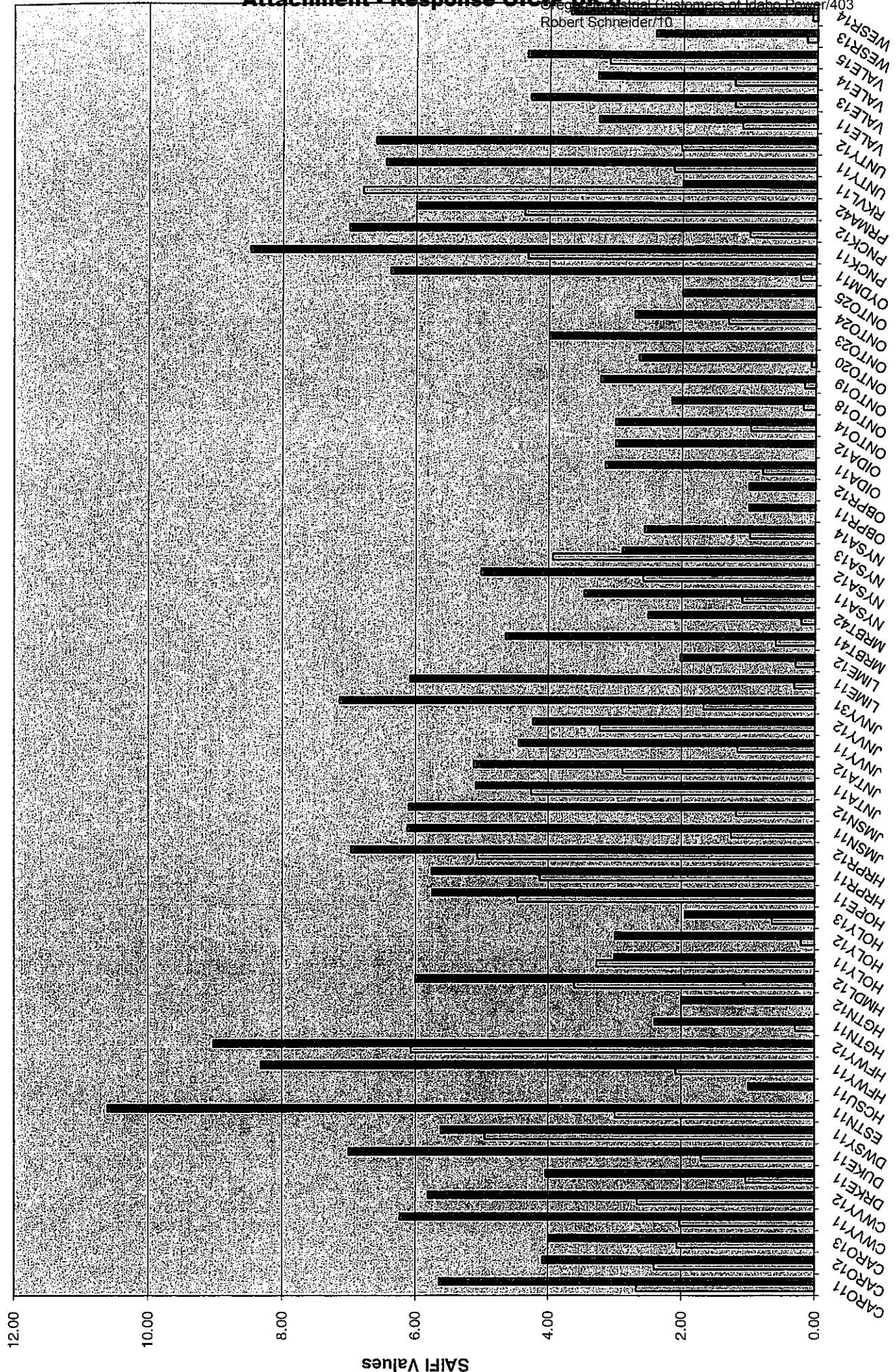
2008 Circuit SAIDI Values  
CHART 1



■ Circuit Threshold

■ Circuit SAIDI Value

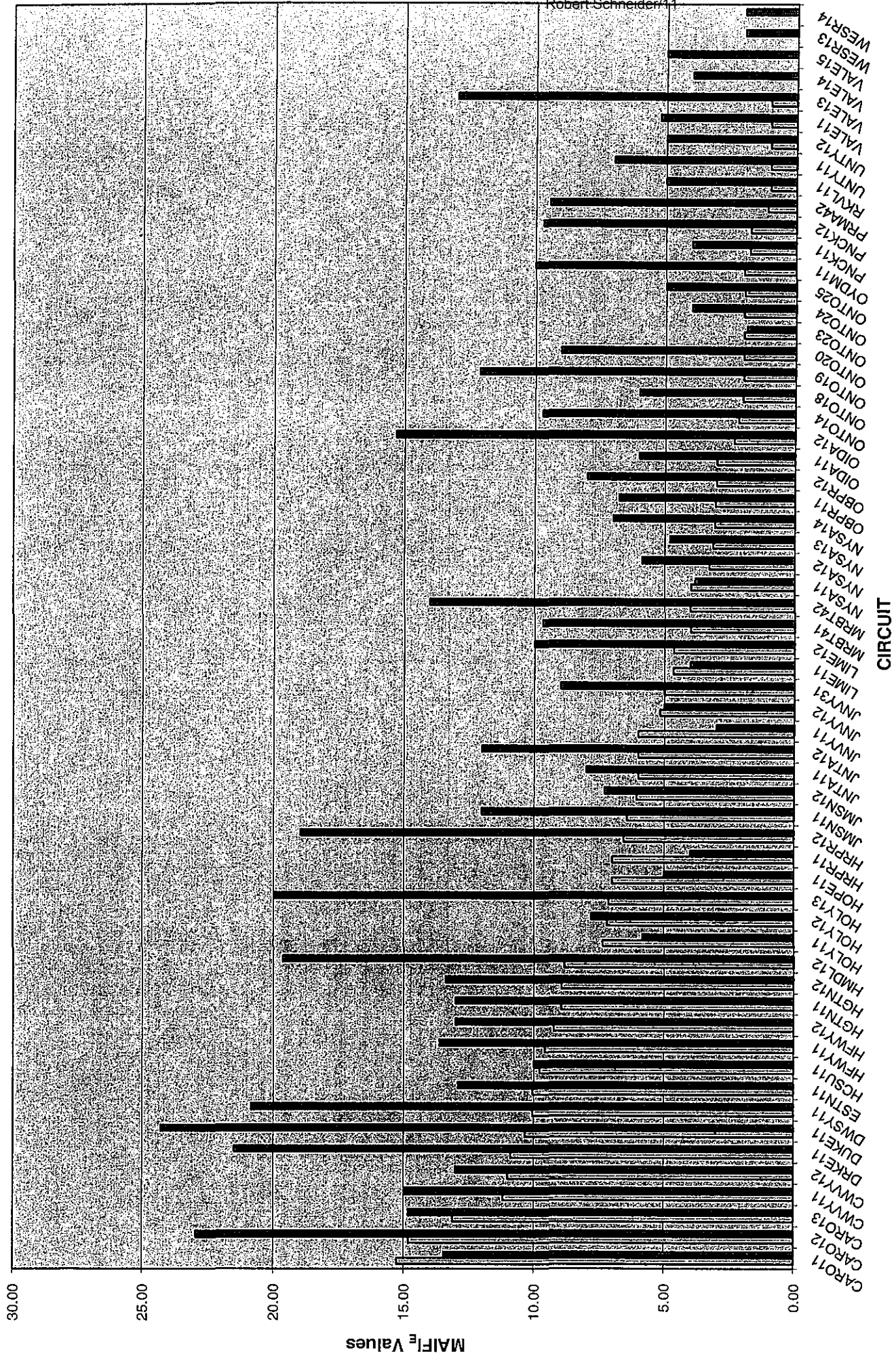
2008 Circuit SAIFI Values  
CHART 2



Legend:  
■ Circuit SAIFI Value  
| Circuit Threshold

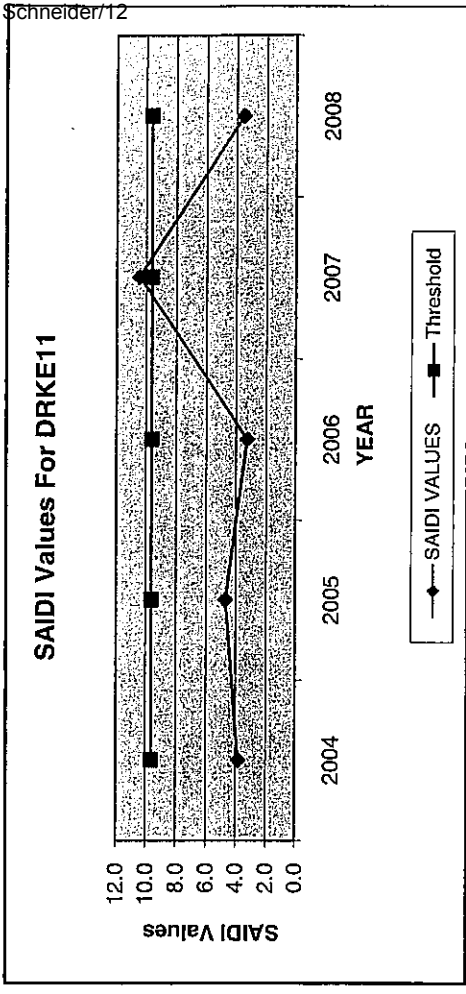
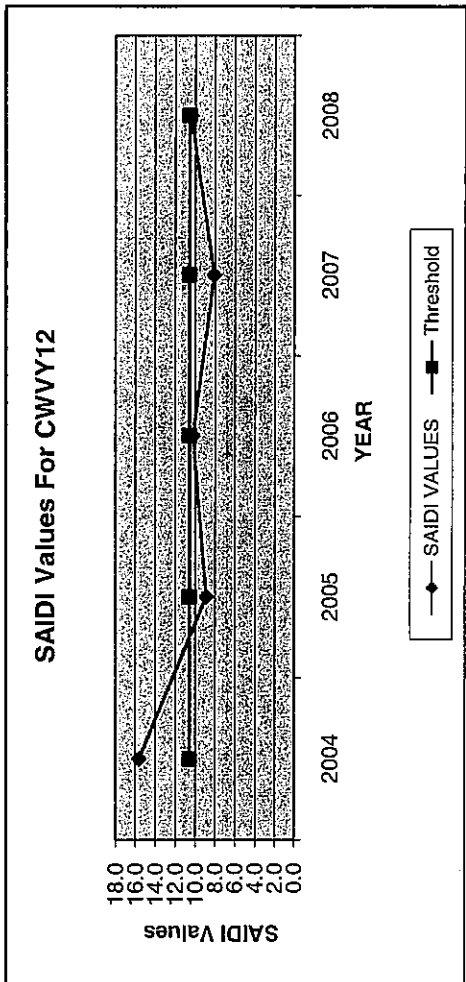
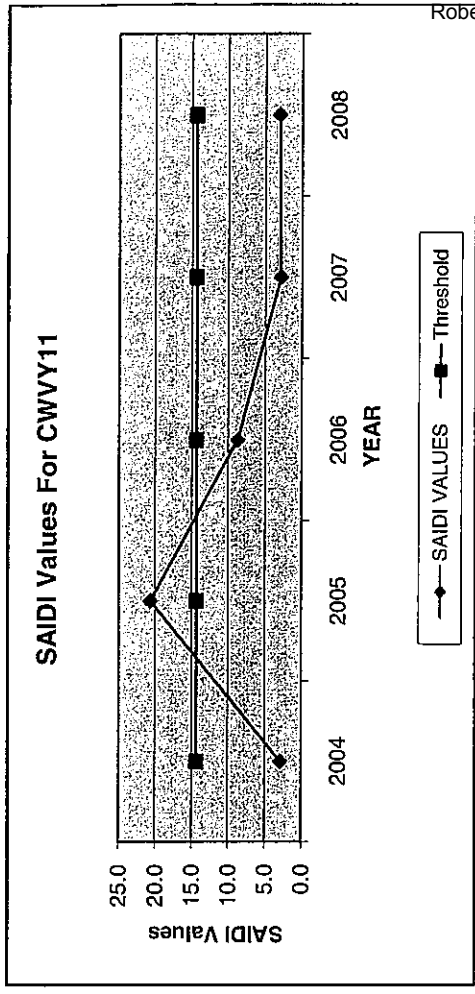
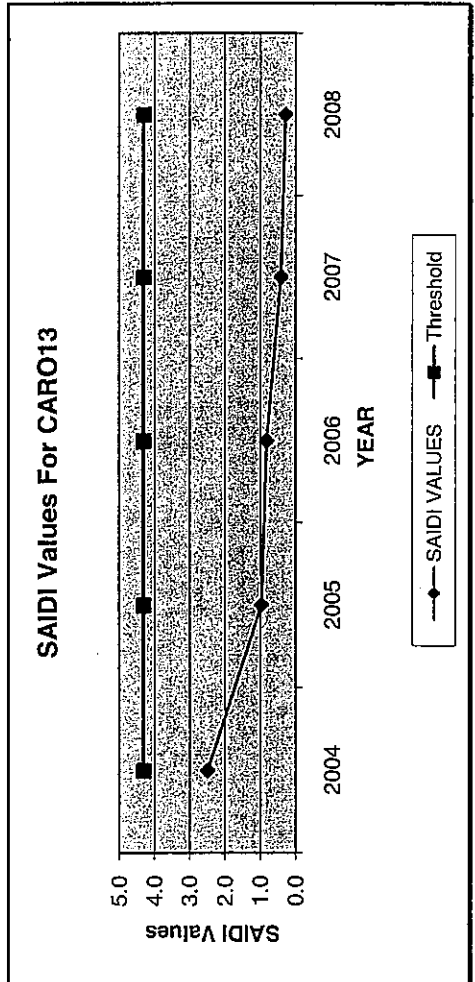
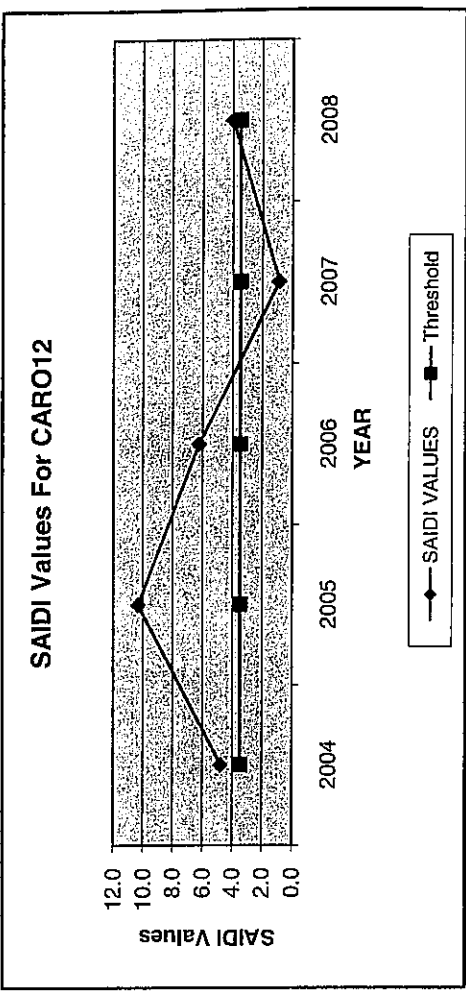
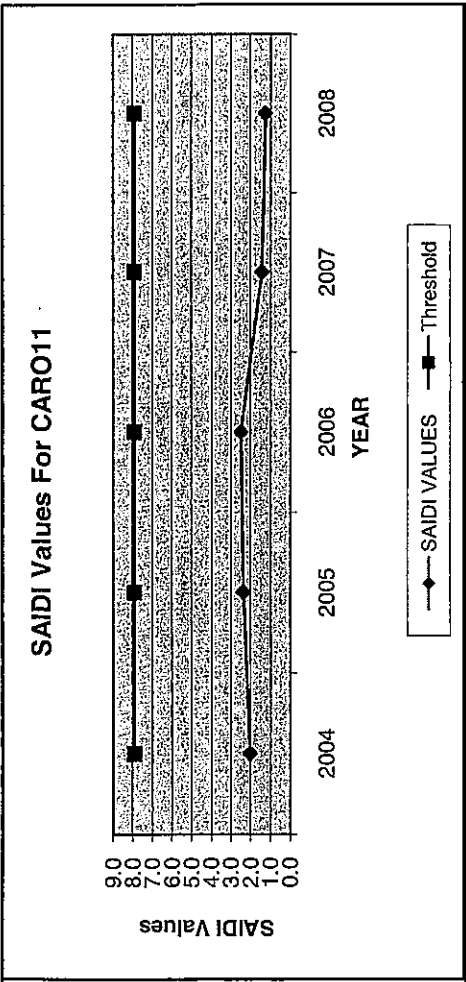


2008 Circuit MAIFle Values  
CHART 3



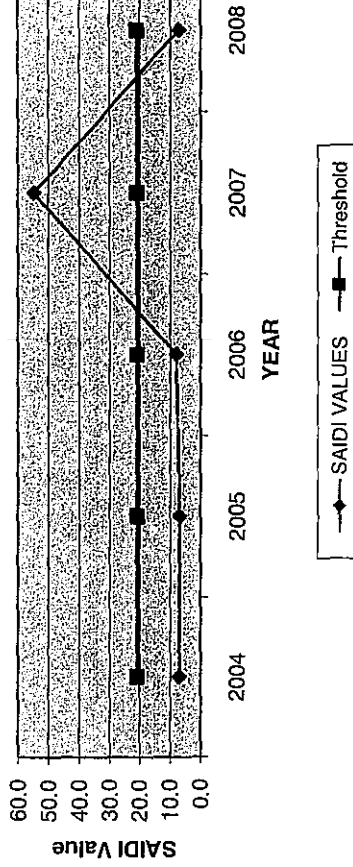
■ Circuit Threshold

■ Circuit MAIFle Value

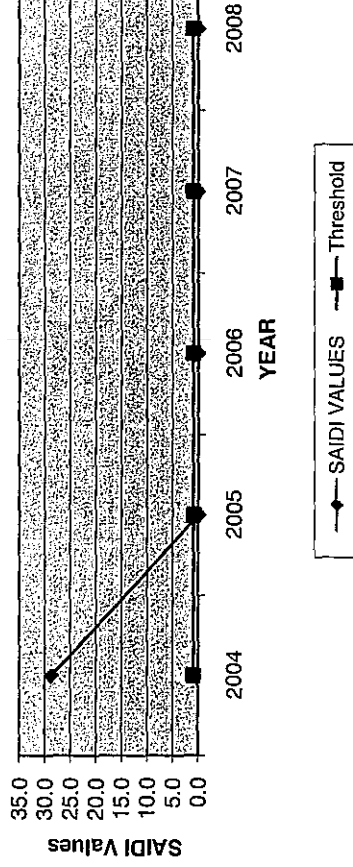


CHARTS - Circuit SAIDI Values

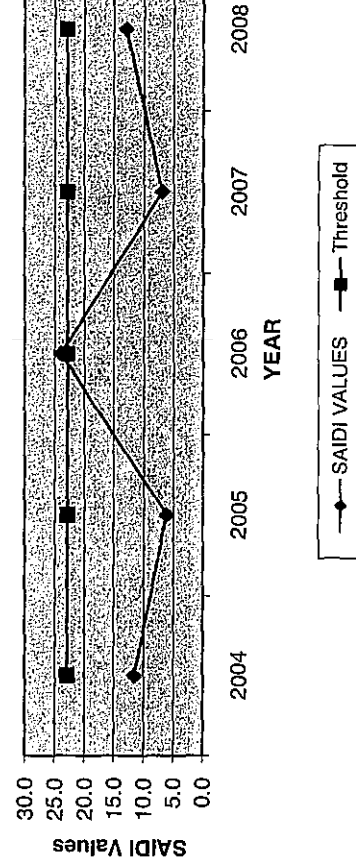
SAIDI Values For DWSY11



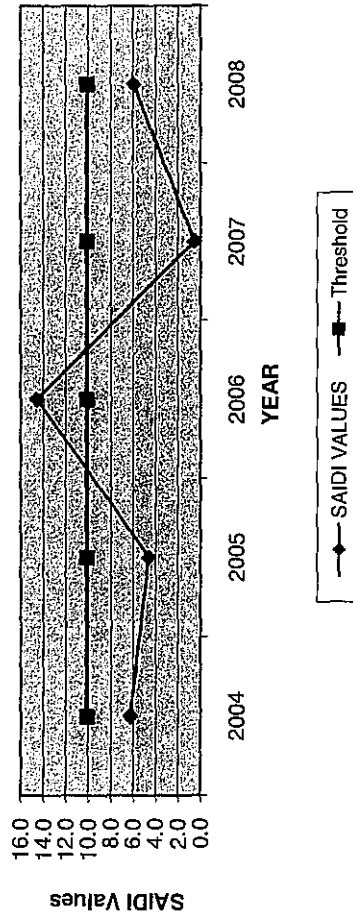
SAIDI Values For HCSU11



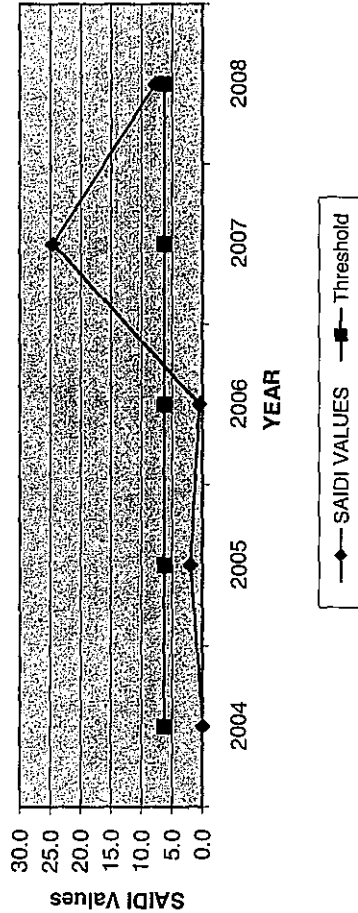
SAIDI Values For HFWY12



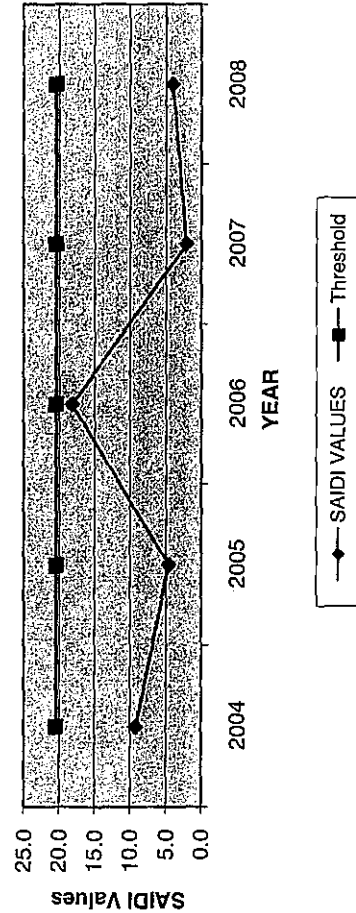
SAIDI Values For DUKE11



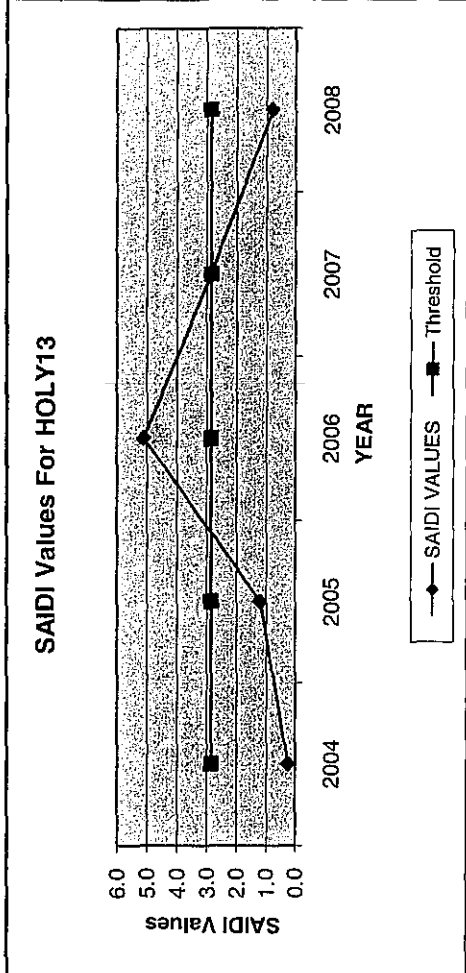
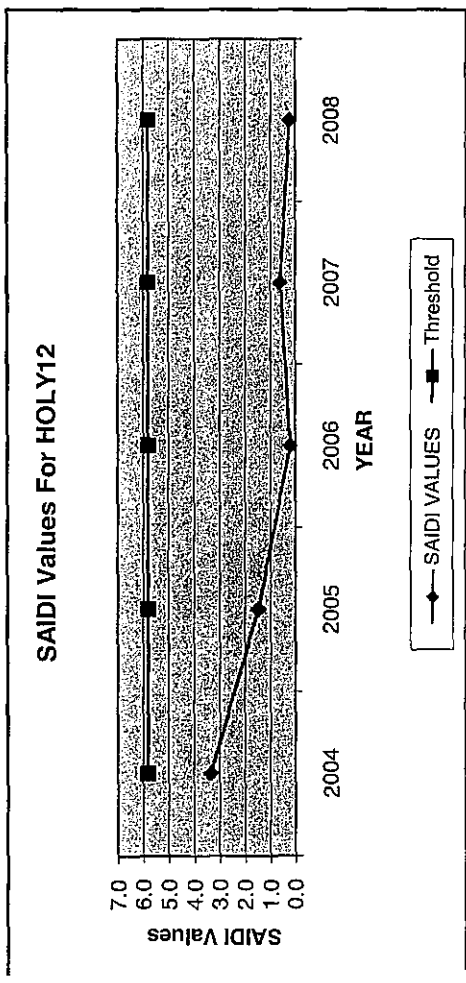
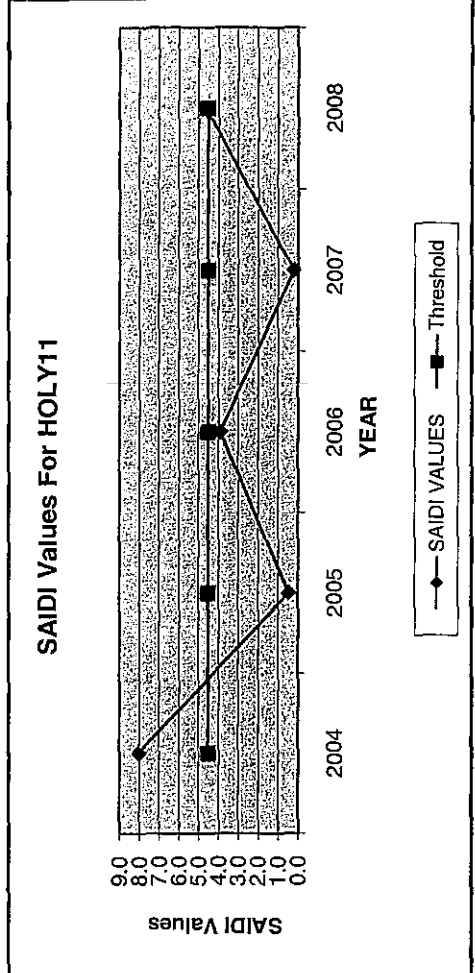
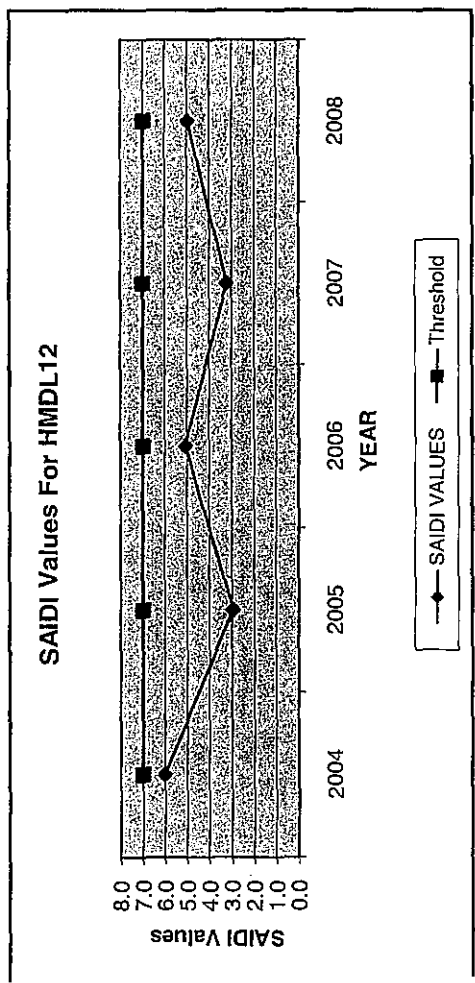
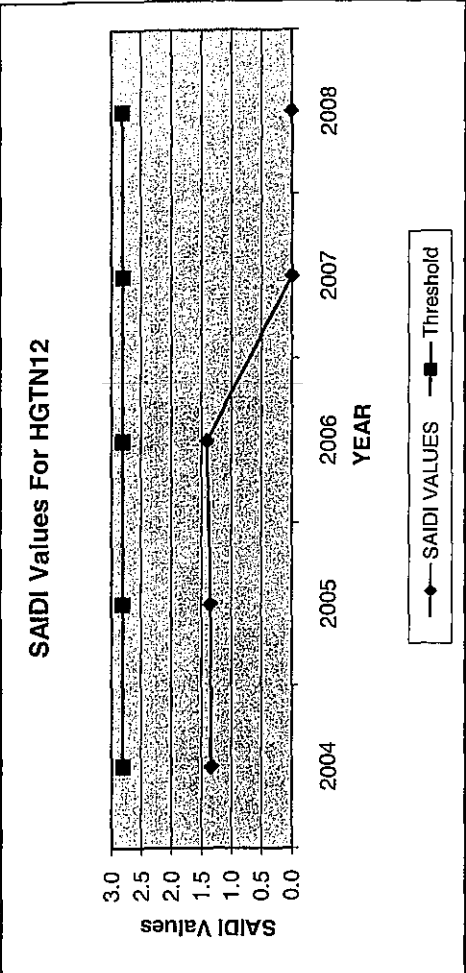
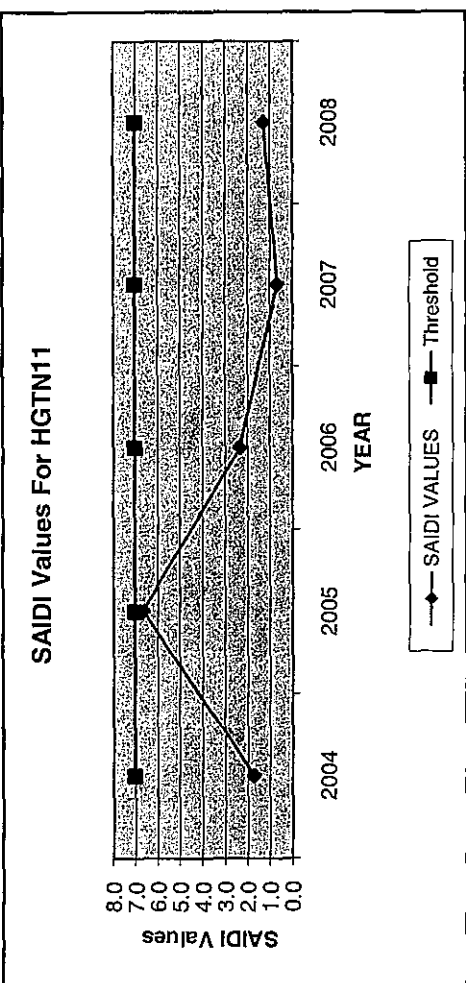
SAIDI Values For ESTN11



SAIDI Values For HFWY11

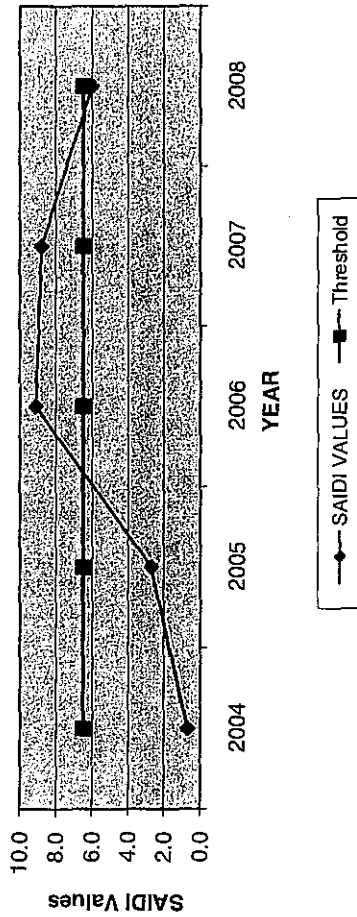




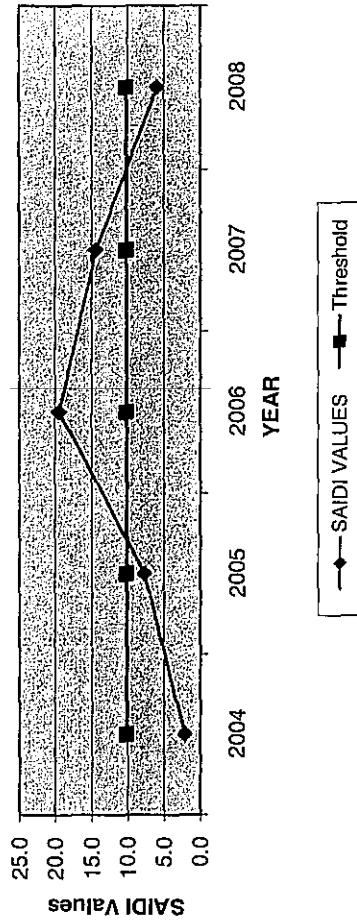


CHARTS - Circuit SAIDI Values

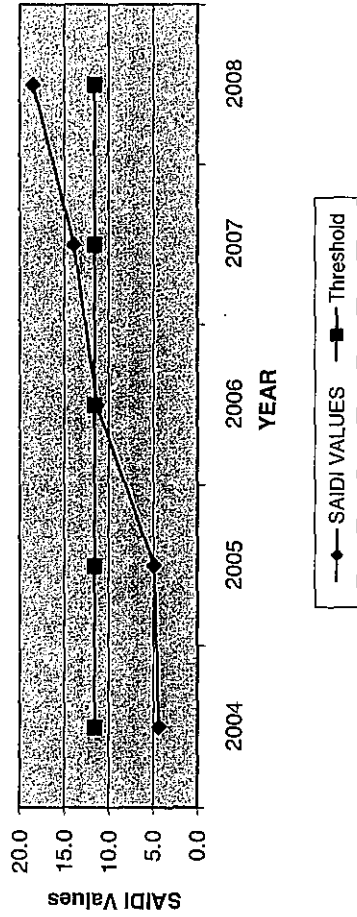
SAIDI Values For HOPE11



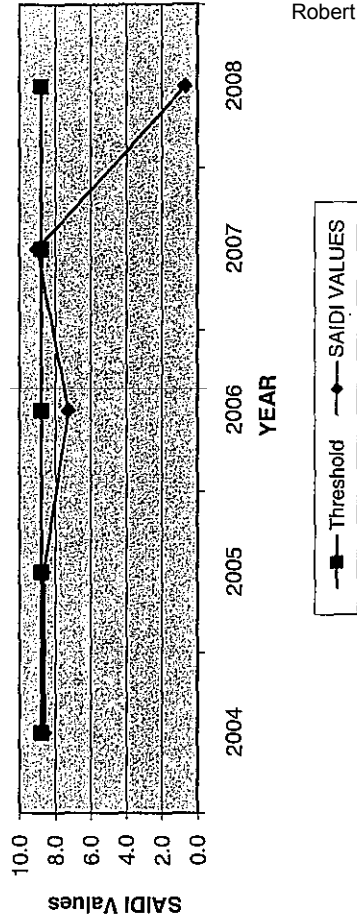
SAIDI Values for HRPR11



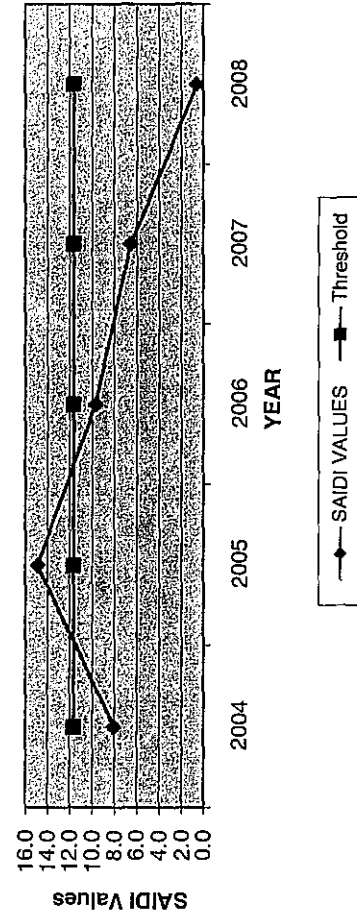
SAIDI Values For HRPR12



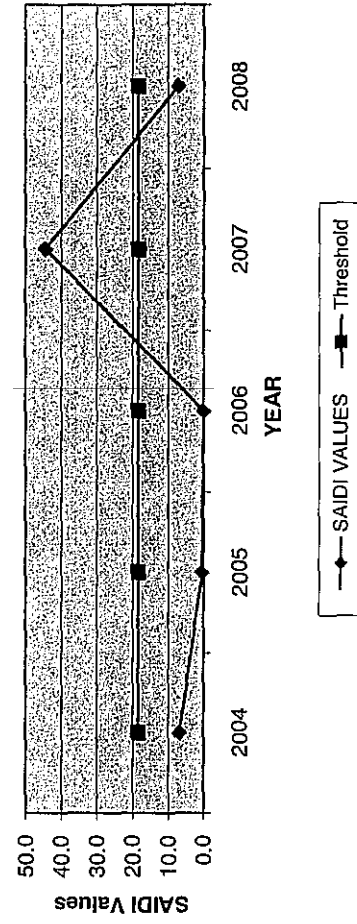
SAIDI Values For JMSN11



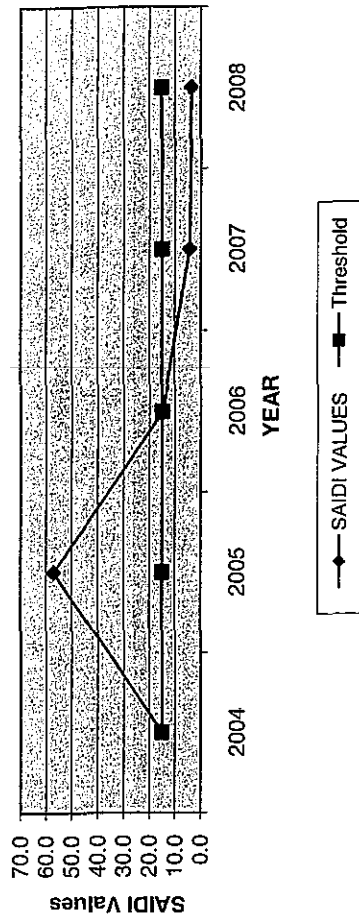
SAIDI Values For JMSN12



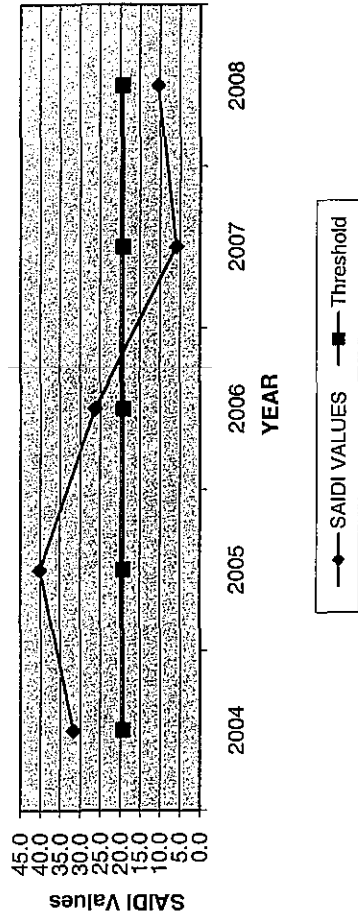
SAIDI Values For JNTA11



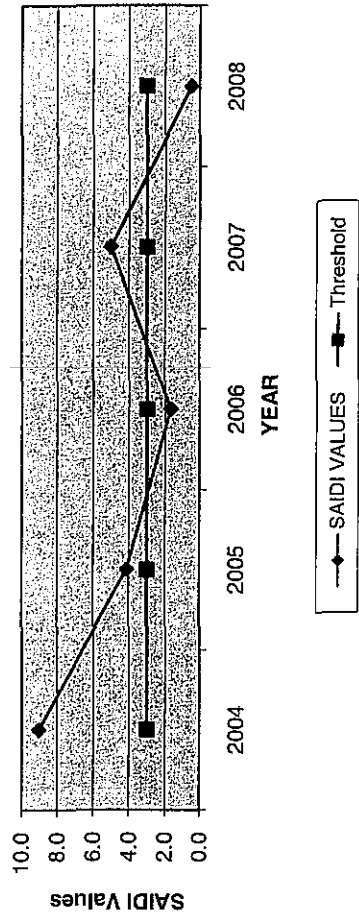
SAIDI Values For JNVY11



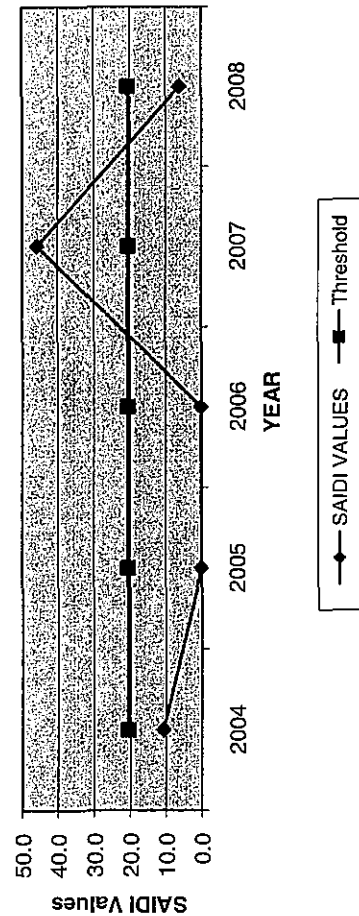
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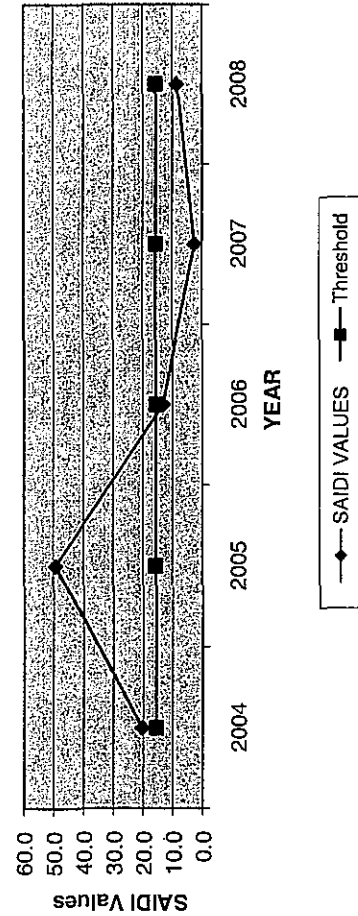
SAIDI Values For LIME12



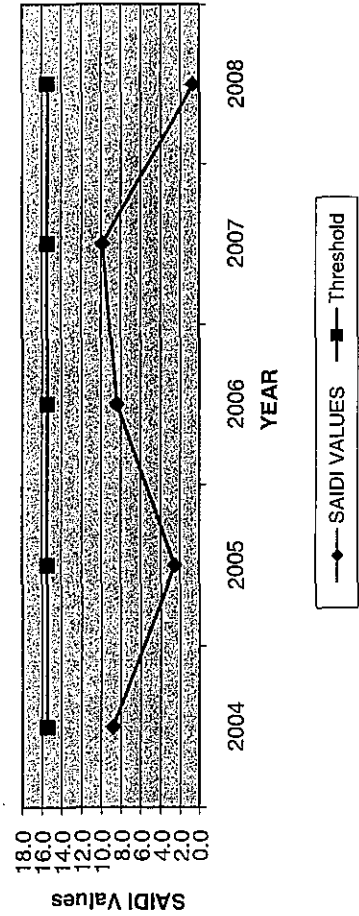
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SAIDI Values For JNVY12

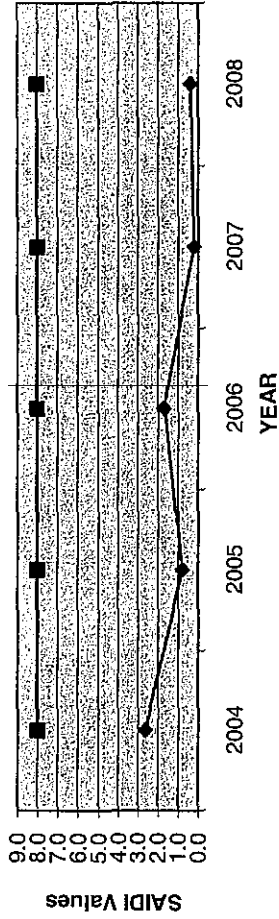


SAIDI Values For LIME11

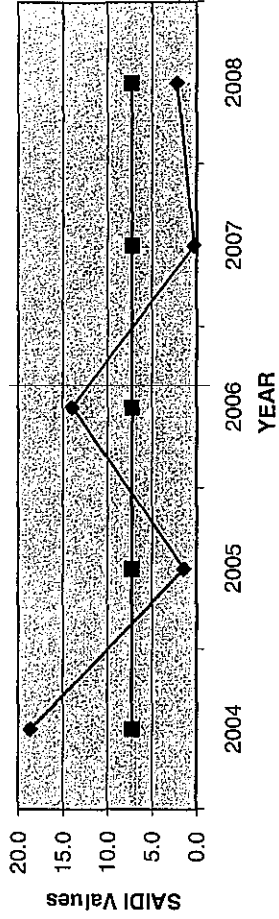


CHARTS - Circuit SAIDI Values

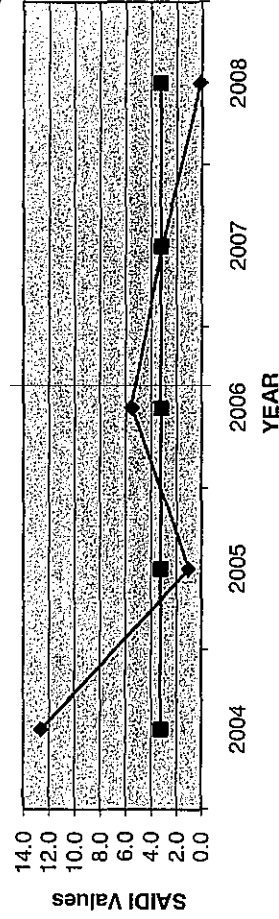
SAIDI Values For MRBT42



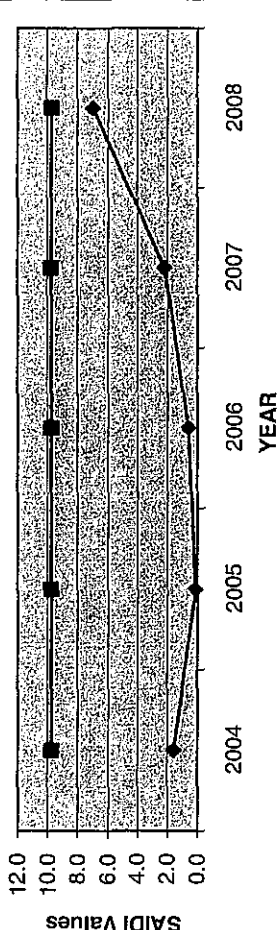
SAIDI Values For NYSA12



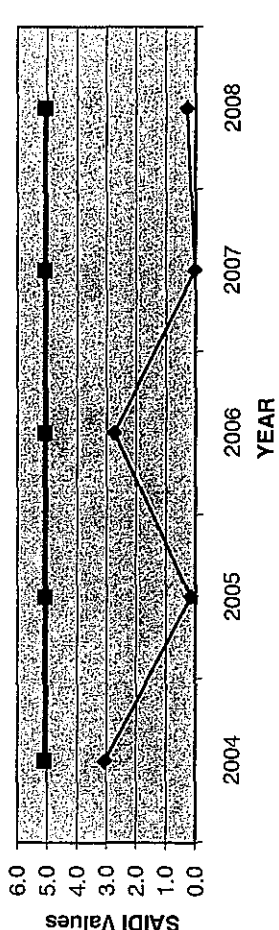
SAIDI Values For NYSA14



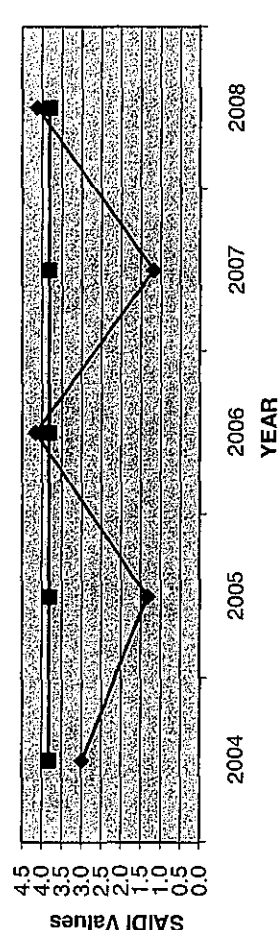
SAIDI Values For MRBT41



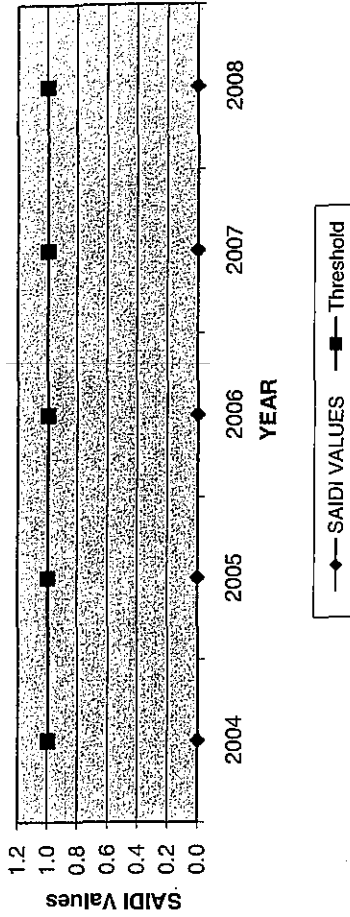
SAIDI Values For NYSA11



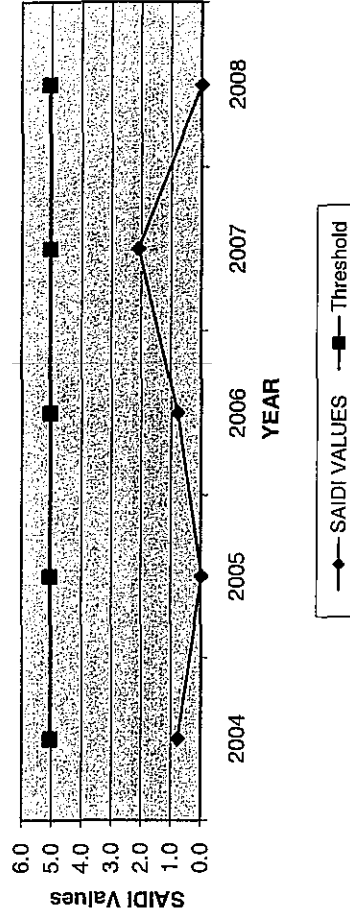
SAIDI Values For NYSA13



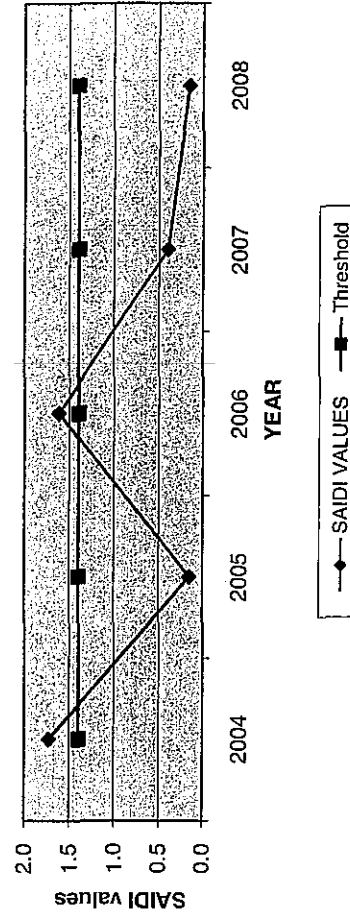
SAIDI Values For OBPR12



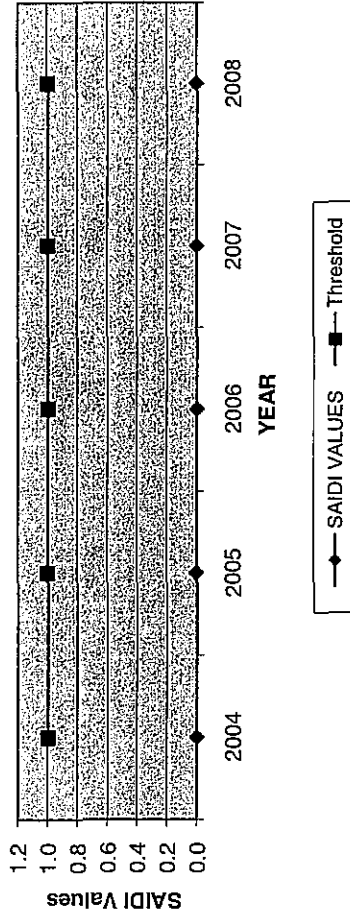
SAIDI Values For OIDA12



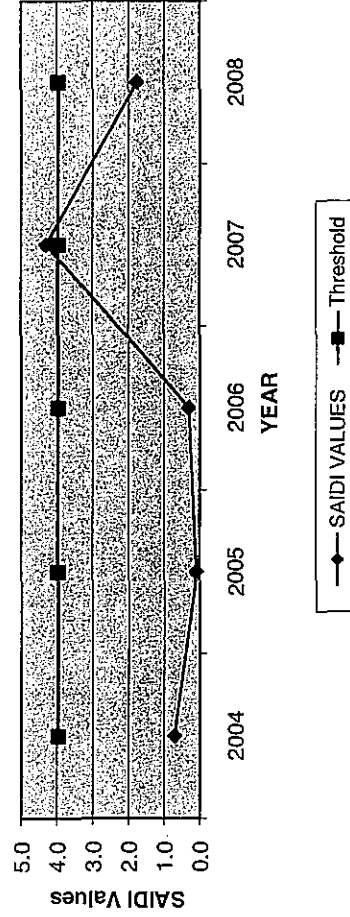
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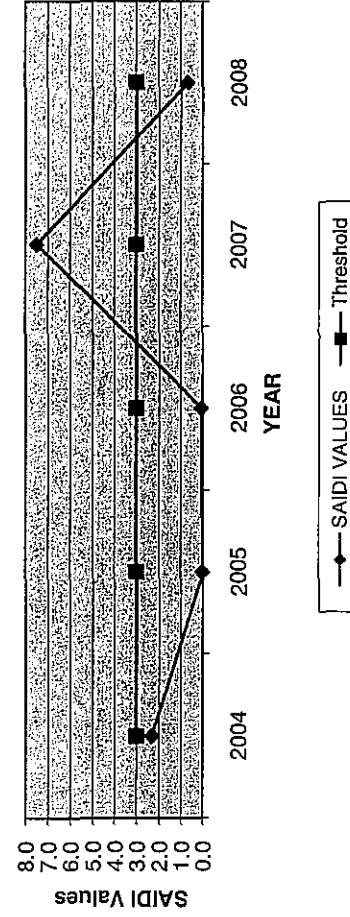
SAIDI Values For OBPR01



SAIDI Values for OIDA11



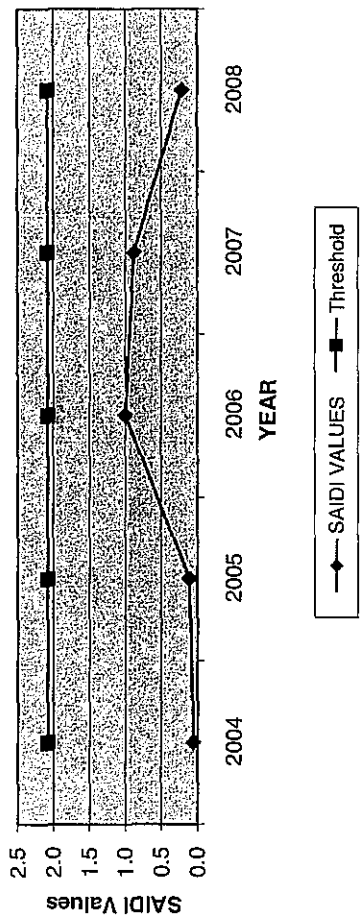
SAIDI Values For ONTO14



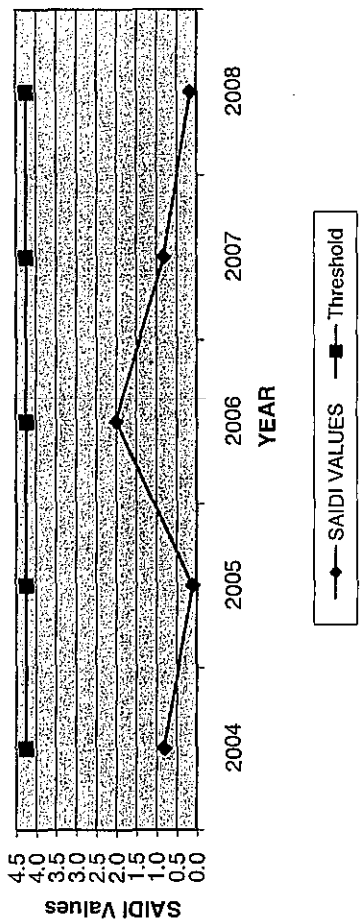


CHARTS - Circuit SAIDI Values

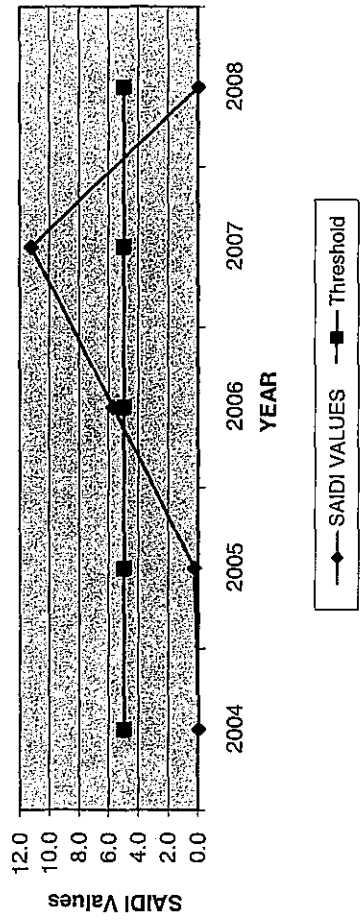
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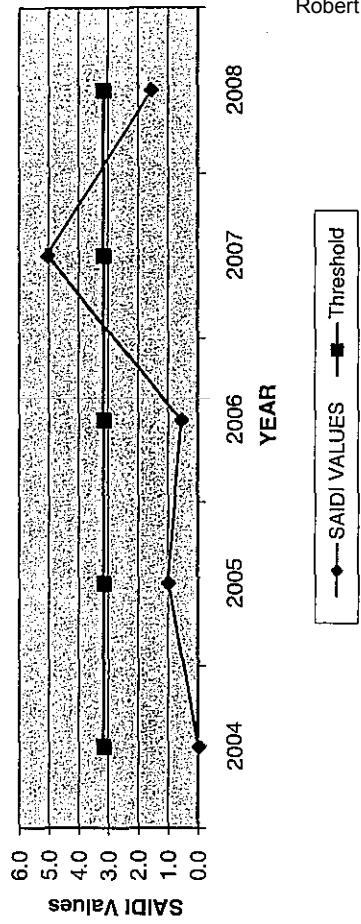
SAIDI Values For ONTO20



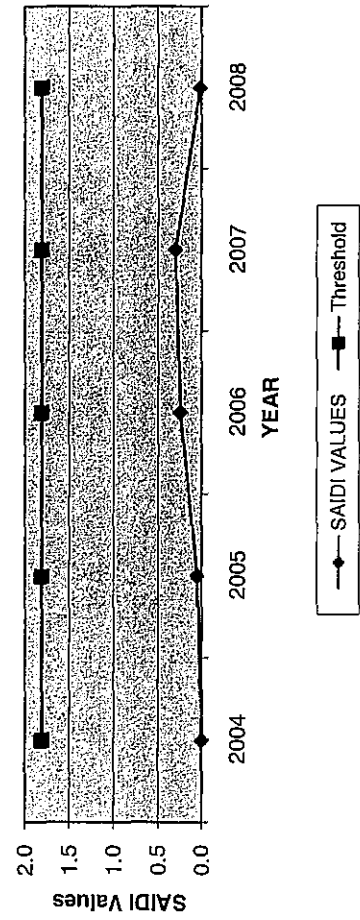
SAIDI Values For ONTO23



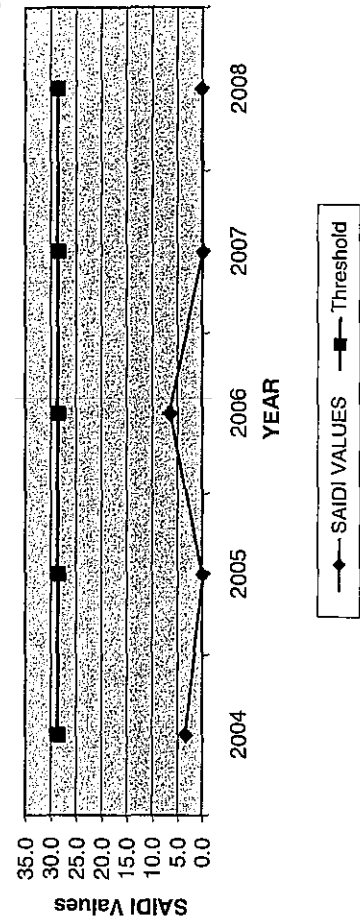
SAIDI Values For ONTO24



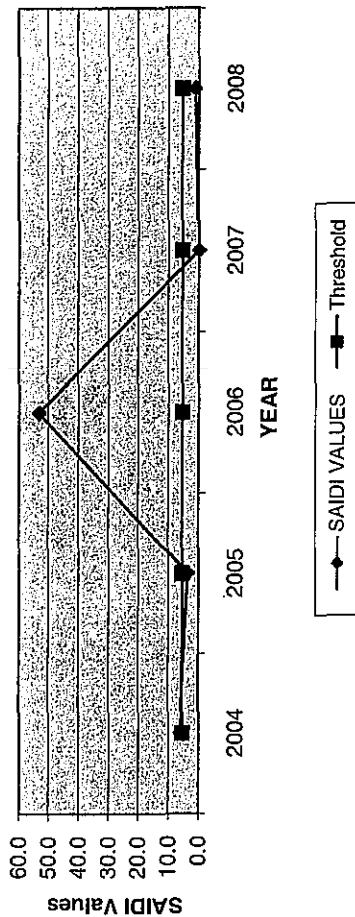
SAIDI Values For ONTO25



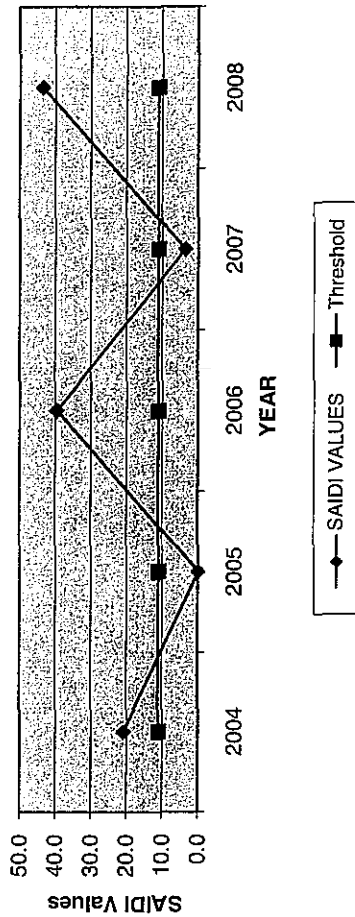
SAIDI Values For OYDM11



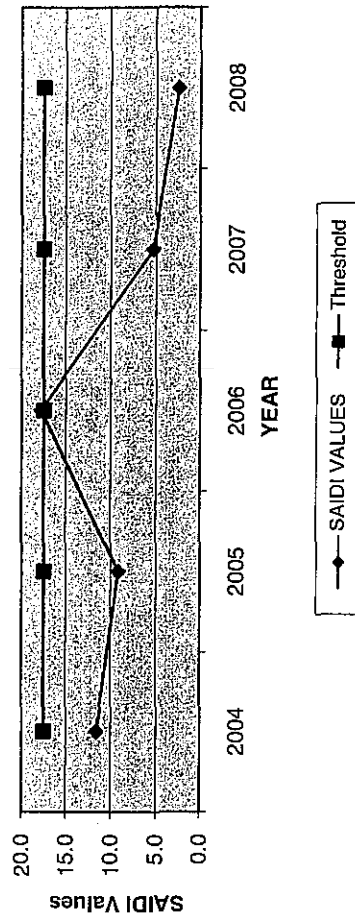
SAIDI Values For PNCK12



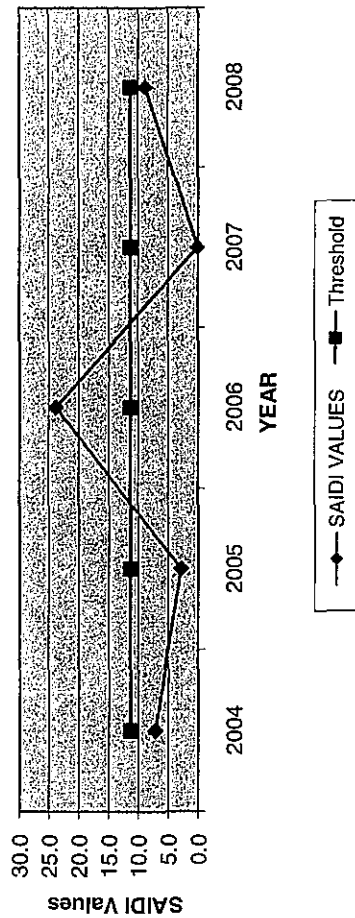
SAIDI Values For RKVL11



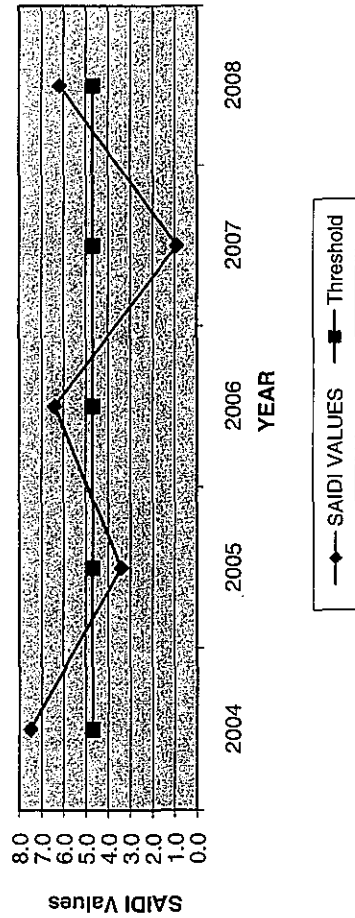
SAIDI Values For UNTY12



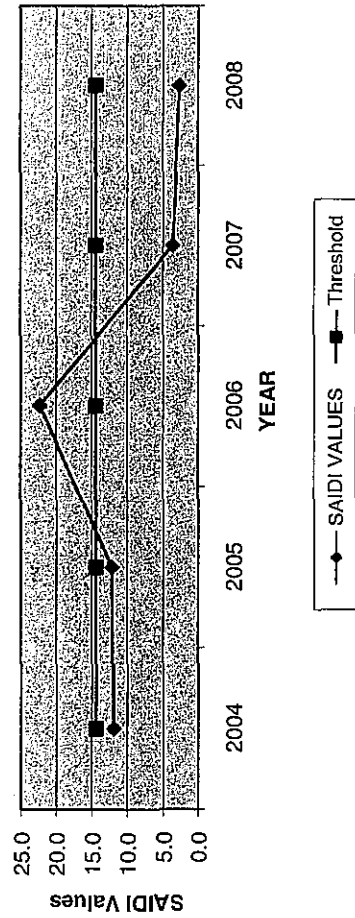
SAIDI Values For PNCK11



SAIDI Values For PRMA42



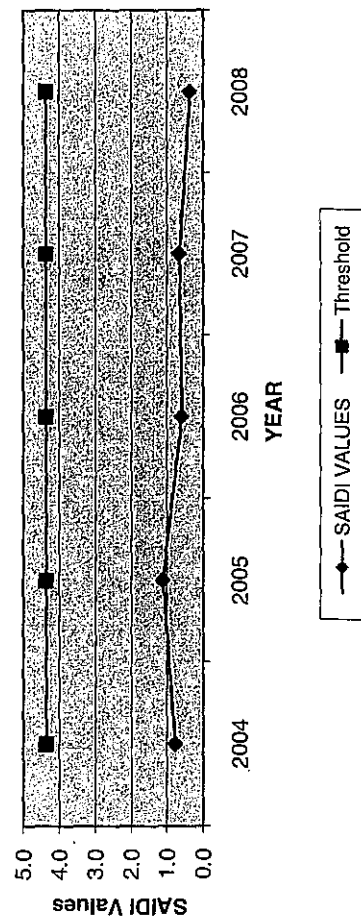
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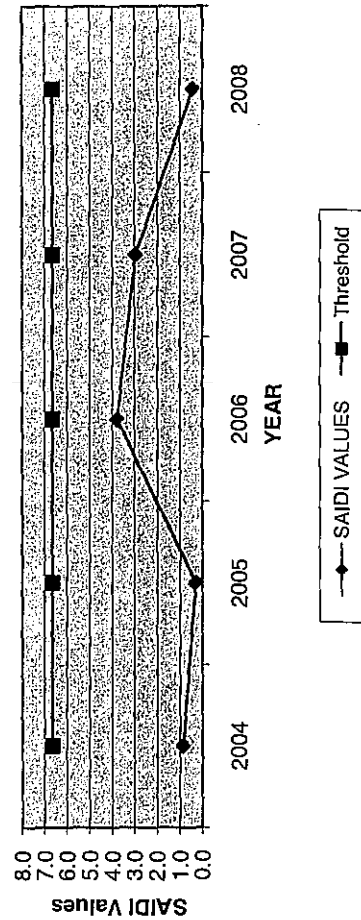


CHARTS - Circuit SAIDI Values

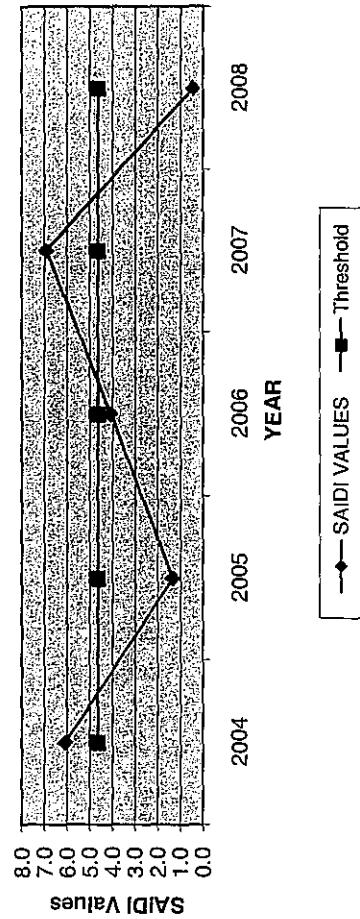
SAIDI Values For VALE11



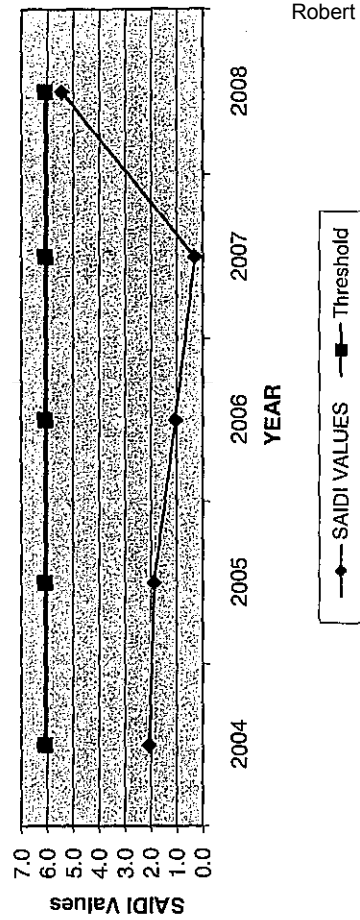
SAIDI Values For VALE13



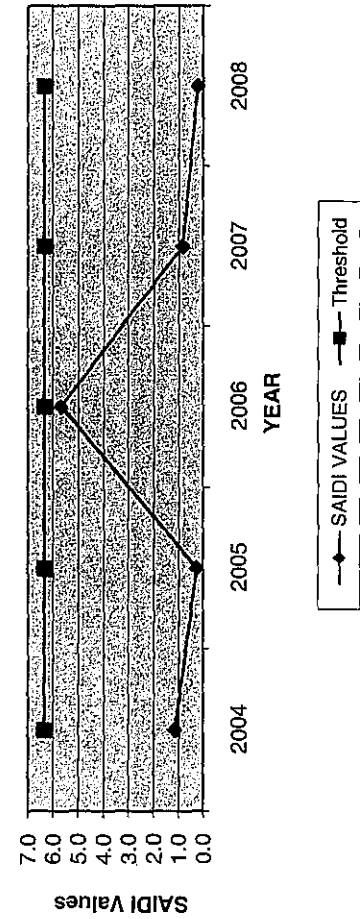
SAIDI Values For VALE14



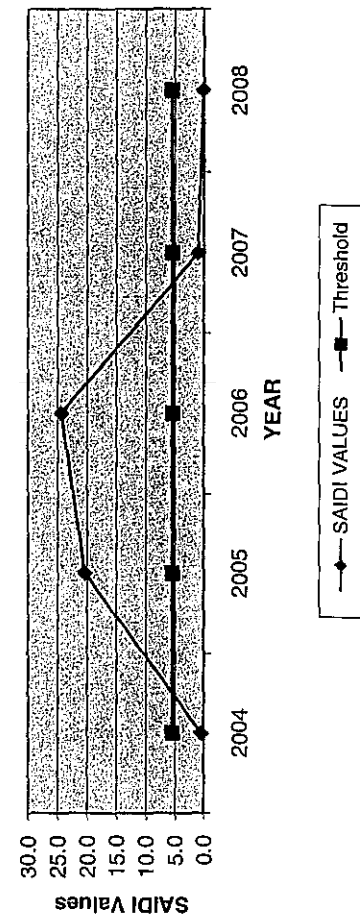
SAIDI Values For VALE15



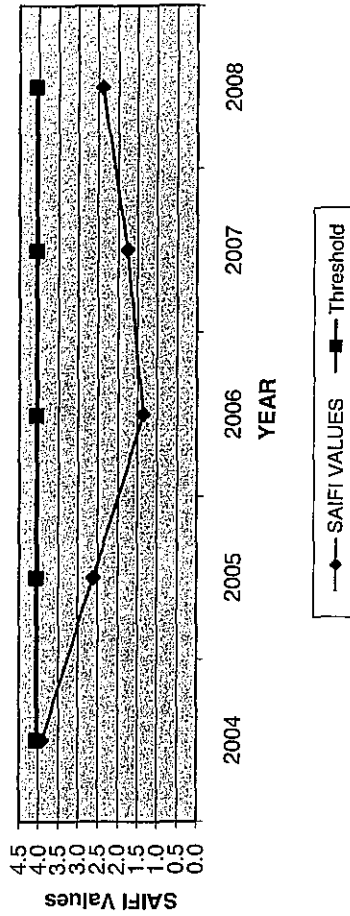
SAIDI Values For WESR13



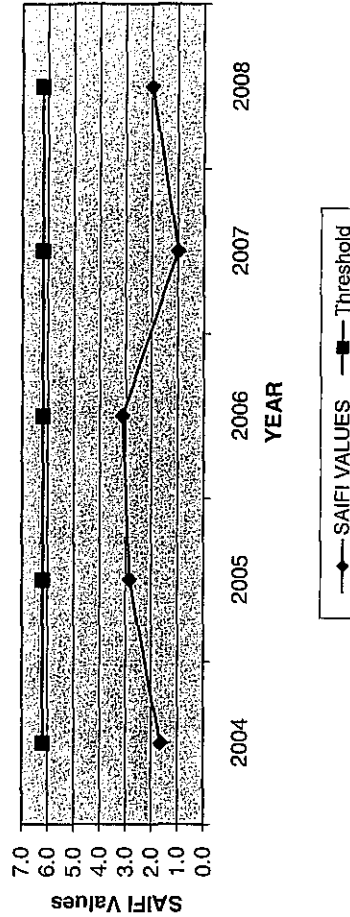
SAIDI Values For WESR14



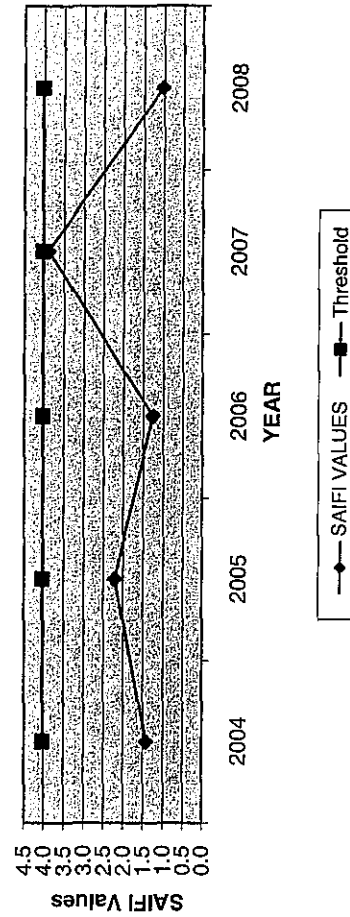
SAIFI Values For CARO12



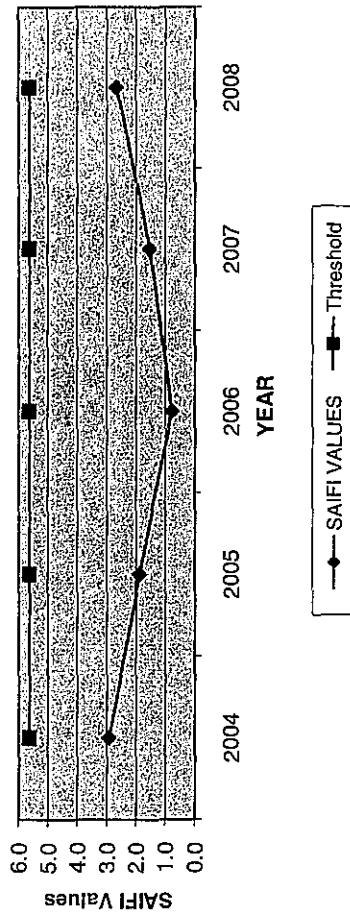
SAIFI Values For CWVY11



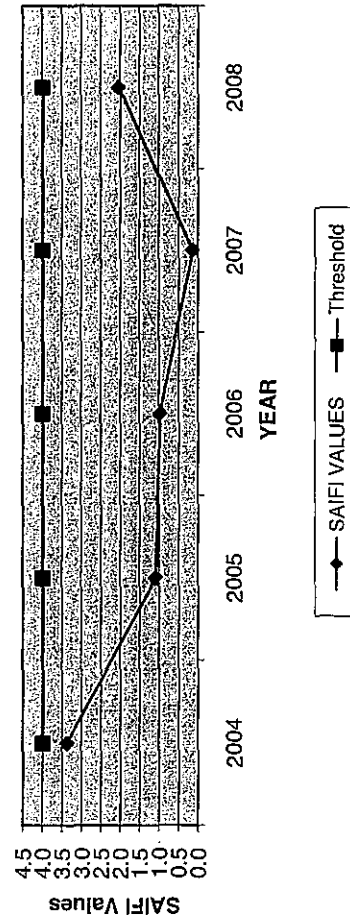
SAIFI Values For DRKE11



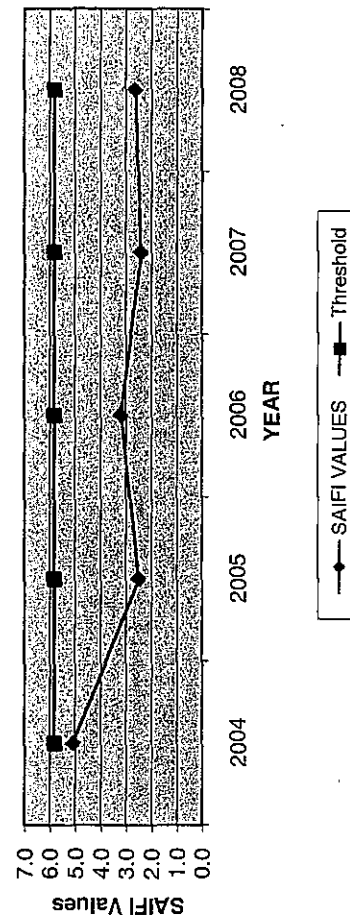
SAIFI Values For CARO11



SAIFI Values For CARO13

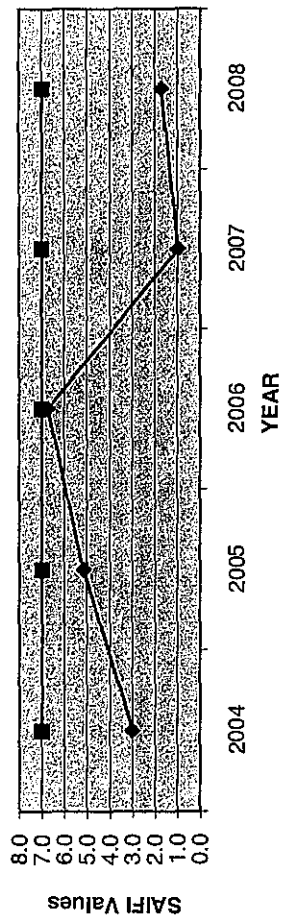


SAIFI Values For CWVY12

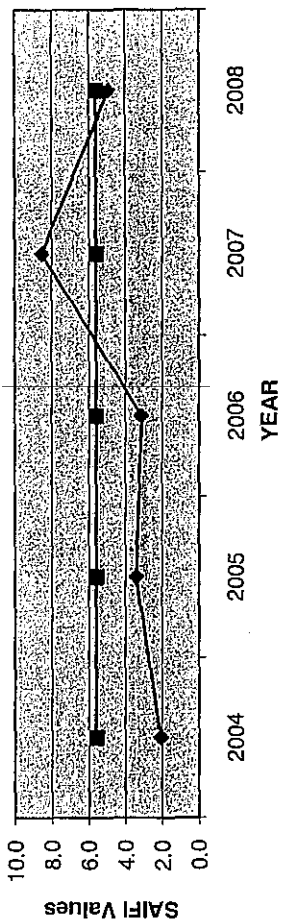


CHARTS - Circuit SAIIFI Values

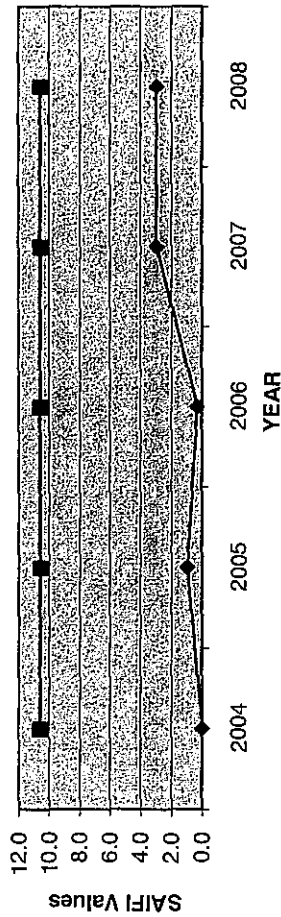
SAIFI Values For DUKE11



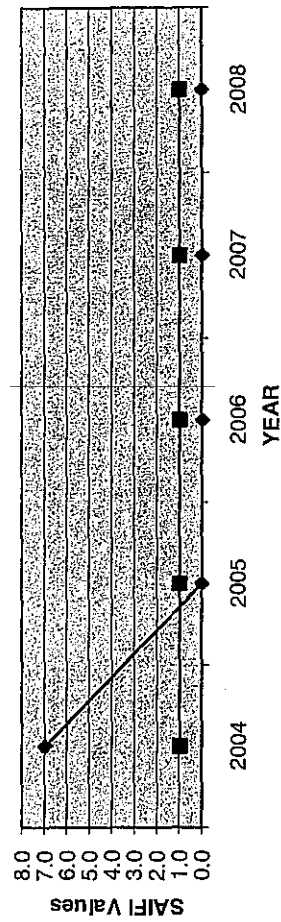
SAIFI Values For DWSY11



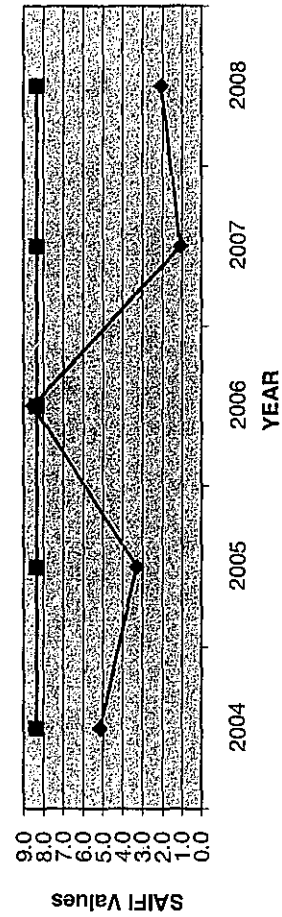
SAIFI Values For ESTN11



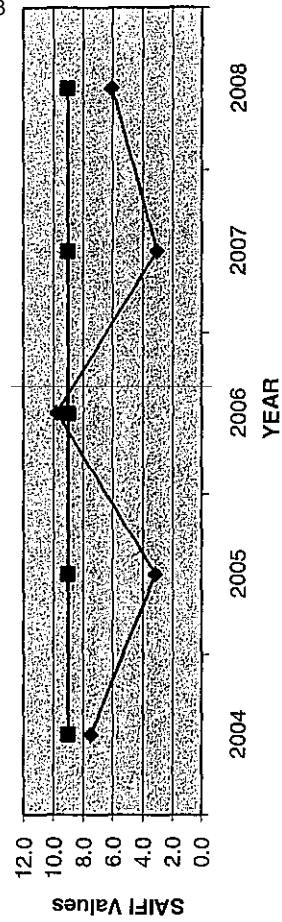
SAIFI Values For HCSU11



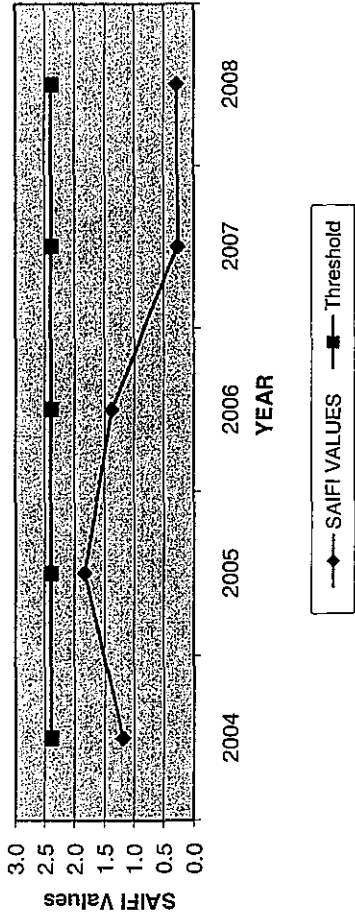
SAIFI Values For HFWDY11



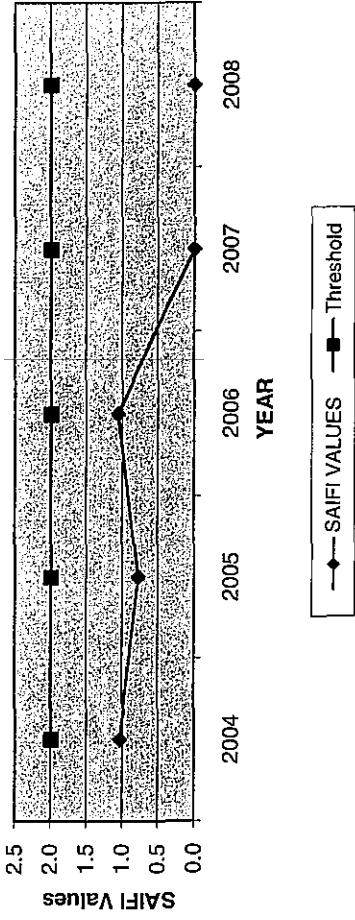
SAIFI Values For HFWDY12



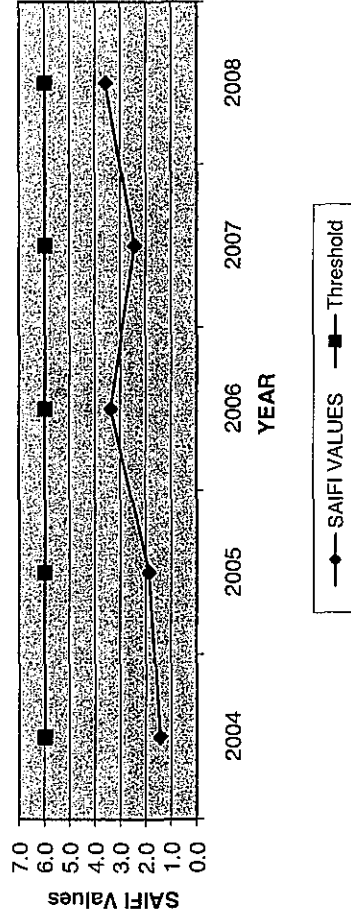
SAIFI Values For HGTN11



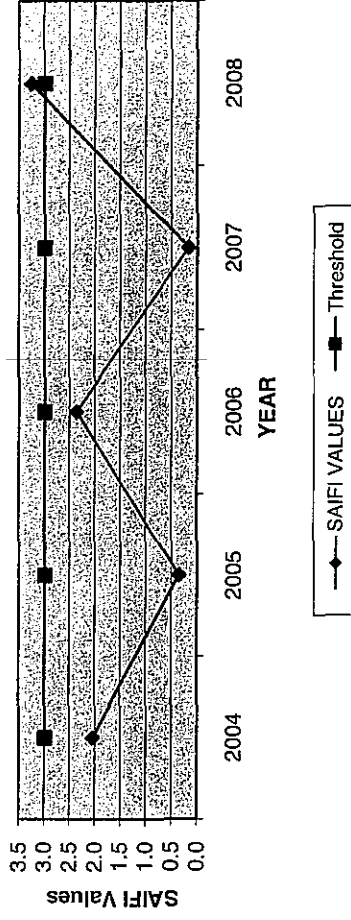
SAIFI Values For HGTN12



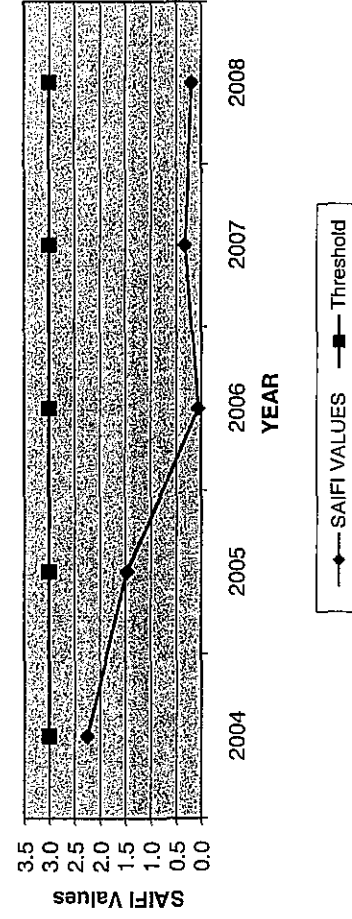
SAIFI Values For HMDL12



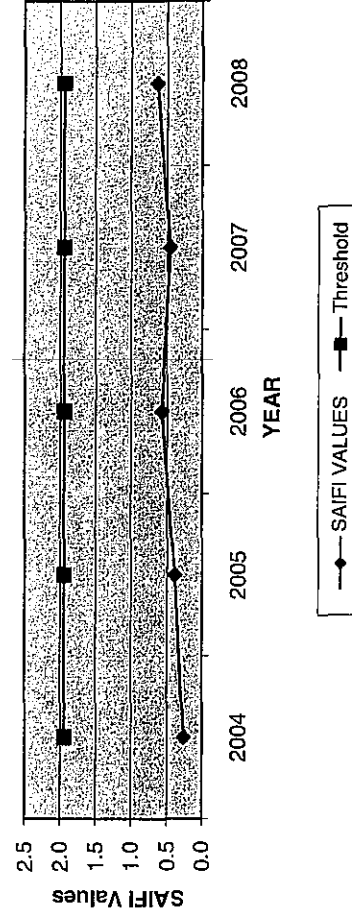
SAIFI Values For HOLY11



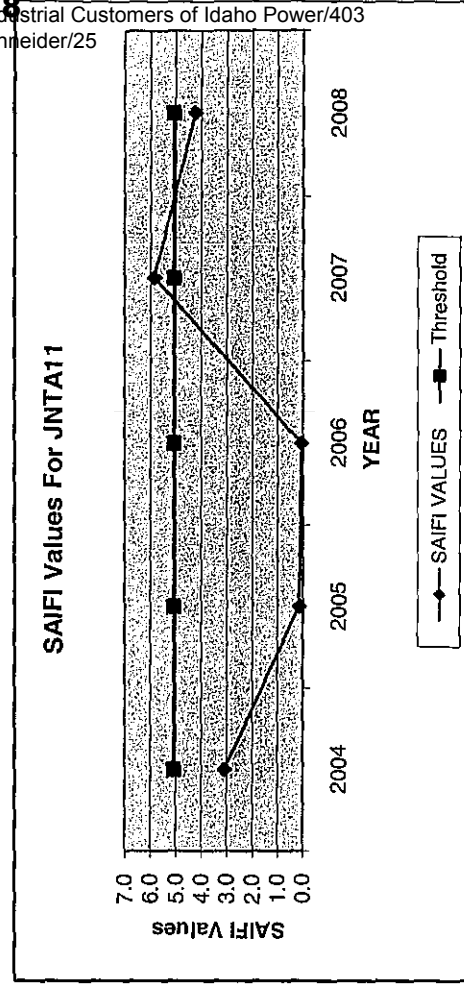
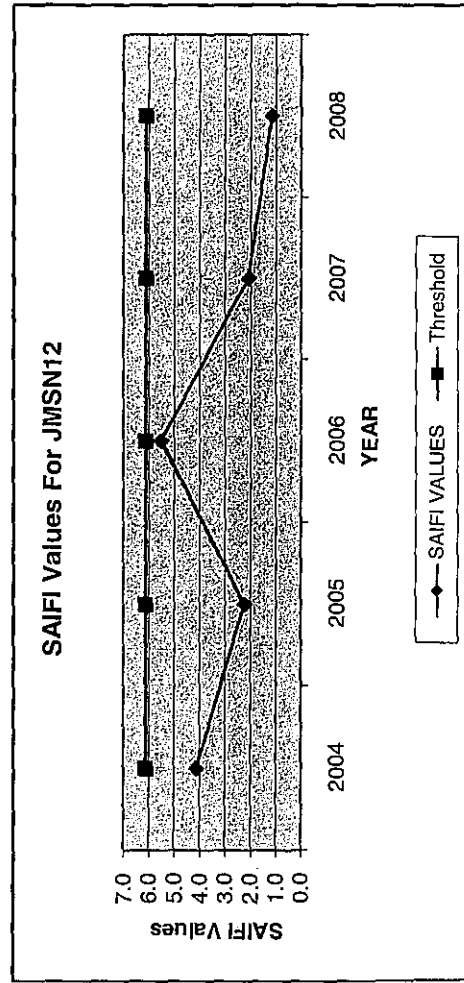
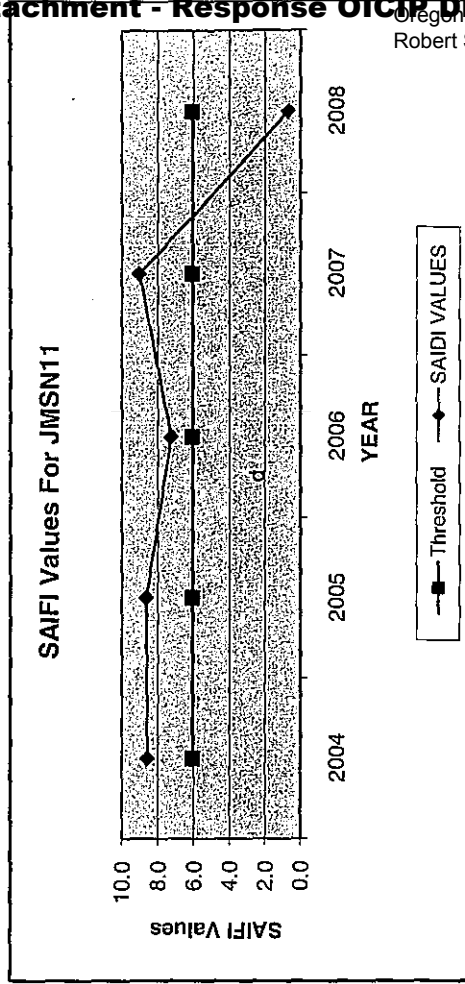
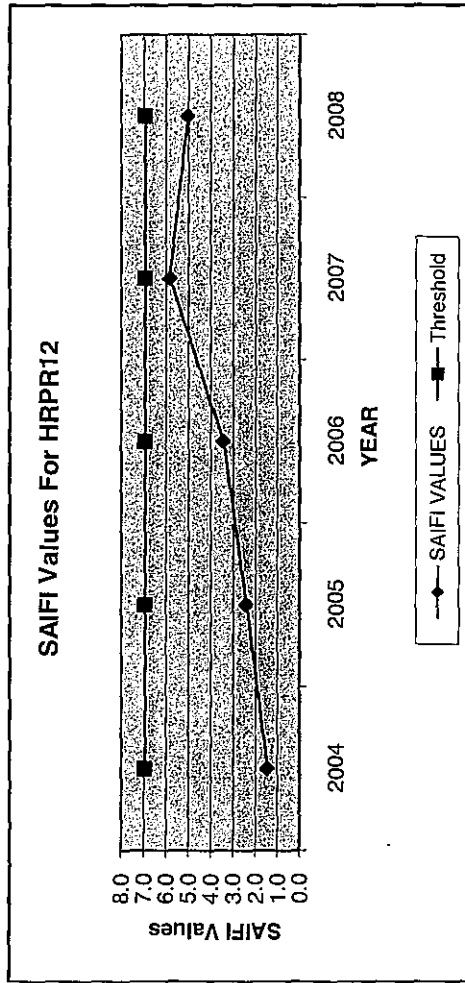
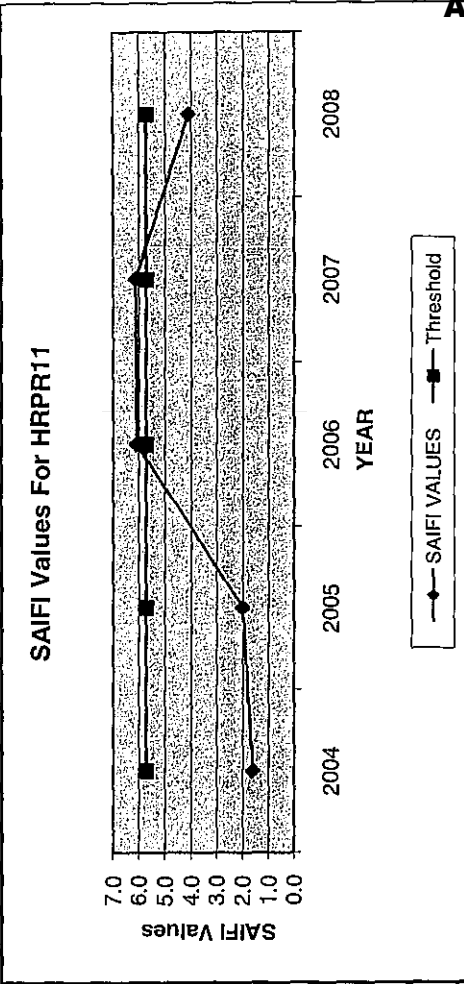
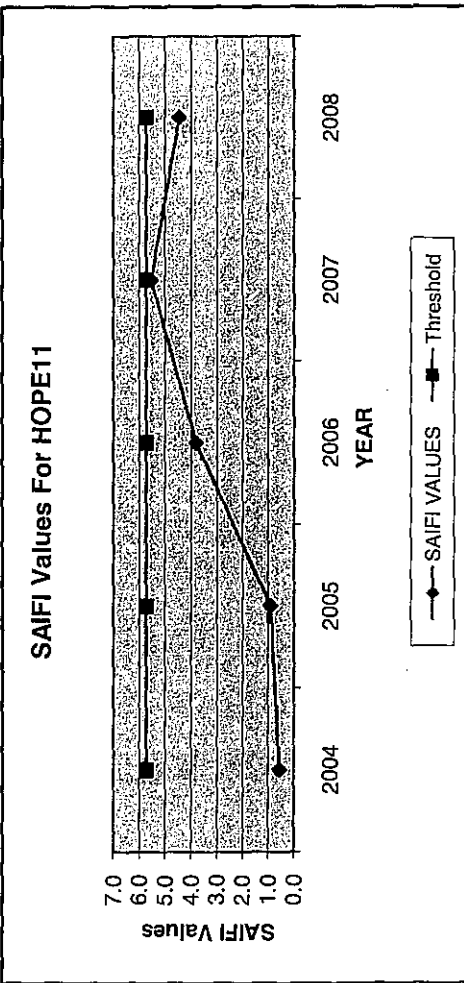
SAIFI Values For HOLY12



SAIFI Values For HOLY13

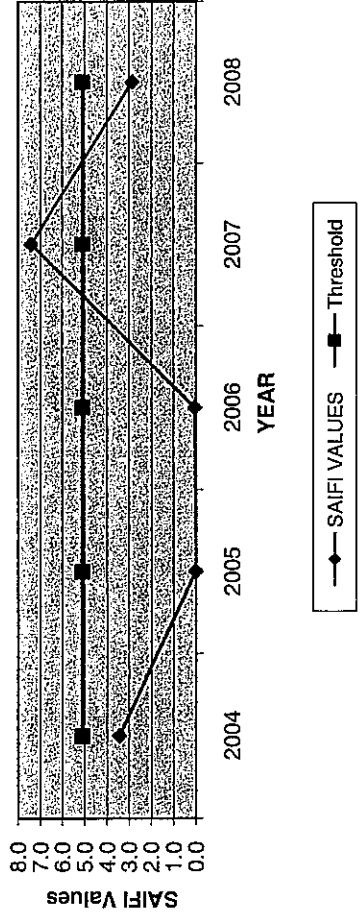


CHARTS - Circuit SAIIFI Values

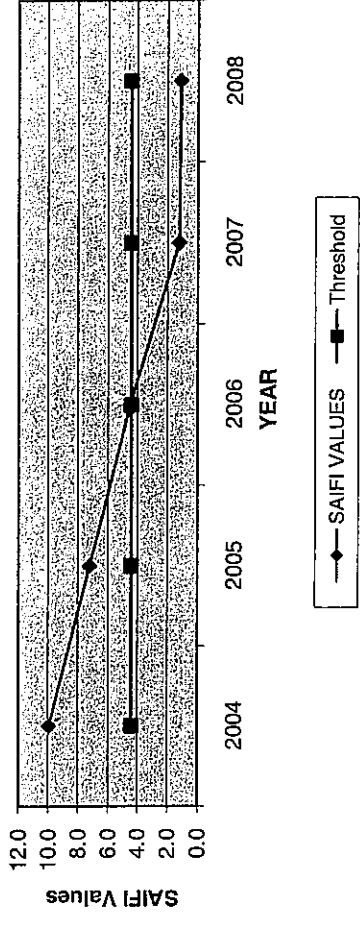




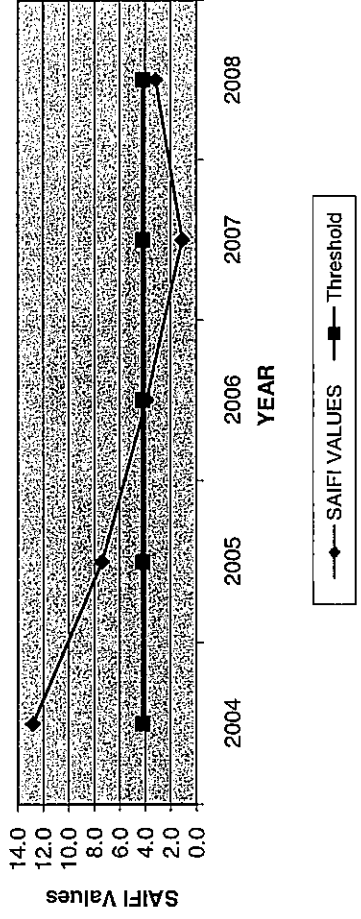
SAIFI Values For JNTA12



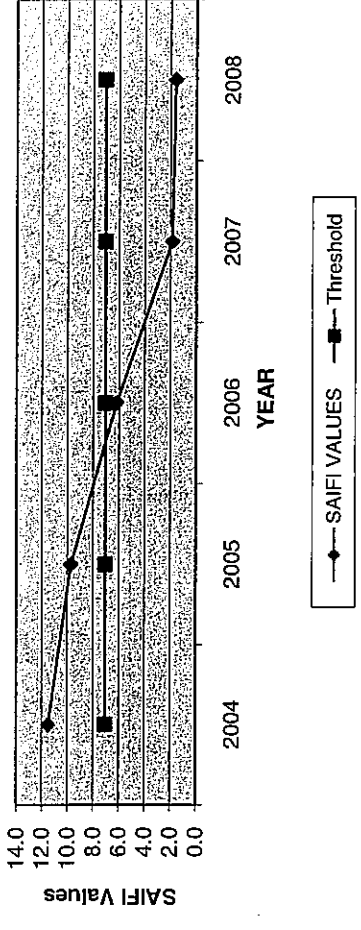
SAIFI Values For JNVY11



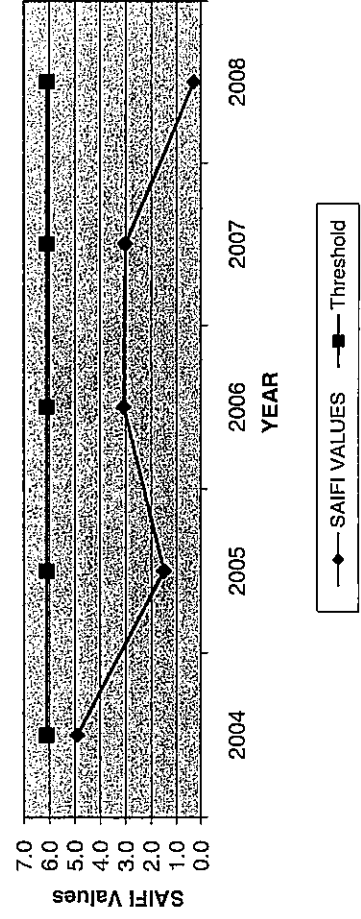
SAIFI Values For JNVY12



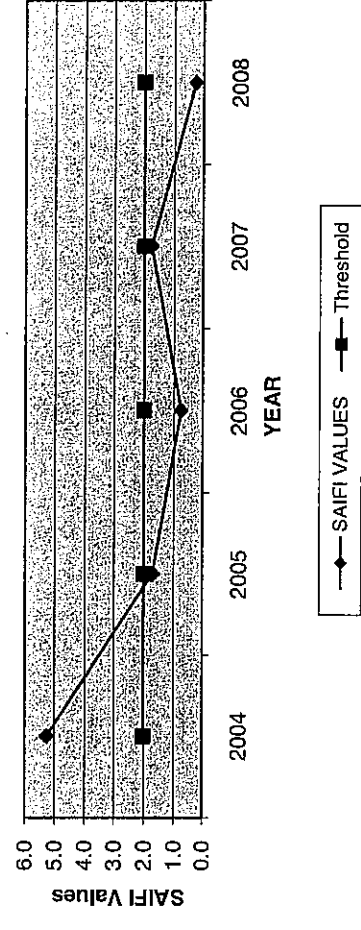
SAIFI Values For JNVY31



SAIFI Values For LIME11



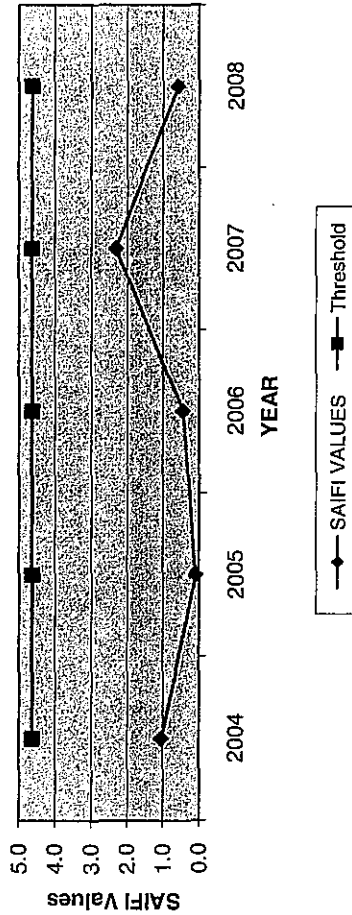
SAIFI Values For LIME12



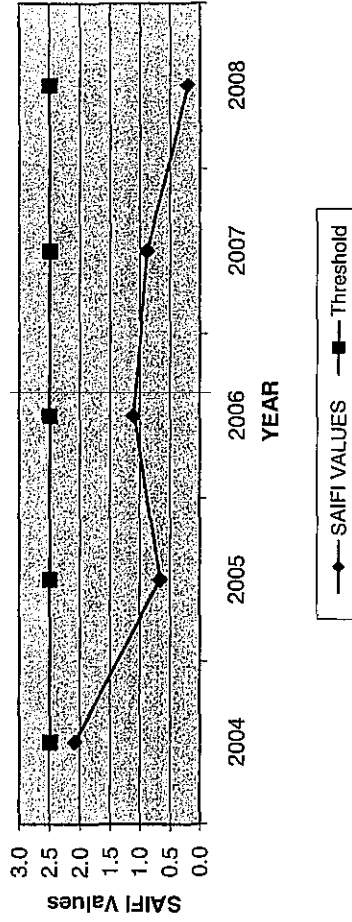


CHARTS - Circuit SAIFI Values

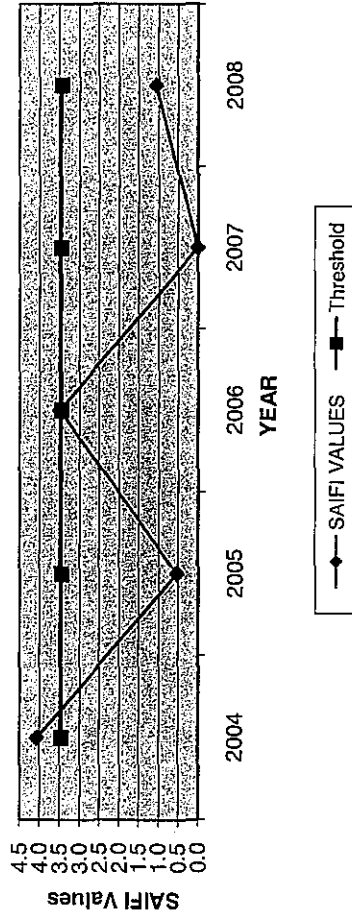
SAIFI Values For MRBT41



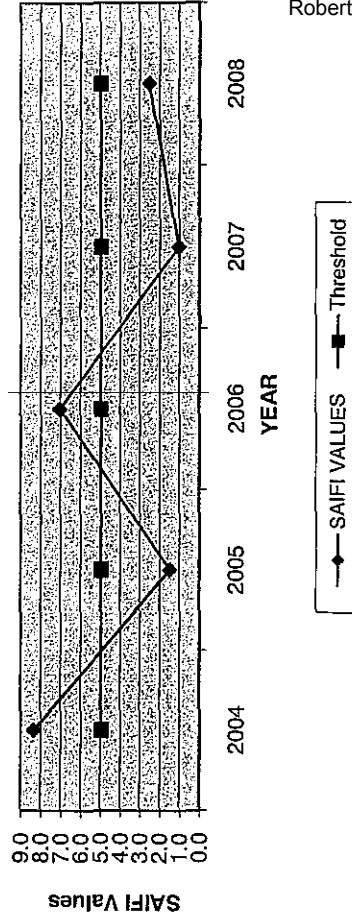
SAIFI Values For MRBT42



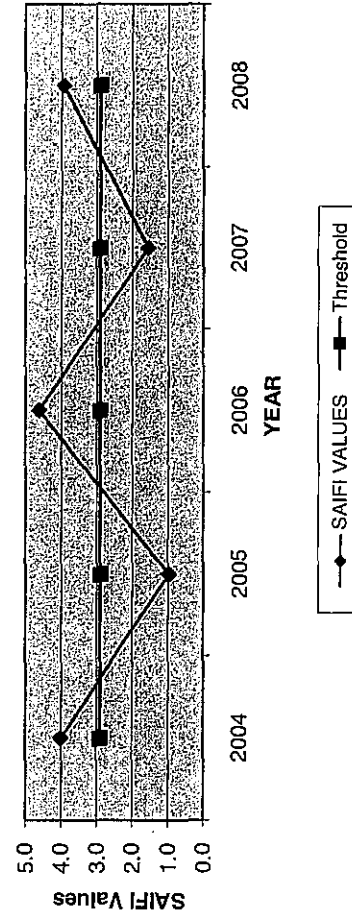
SAIFI Values For NYSA11



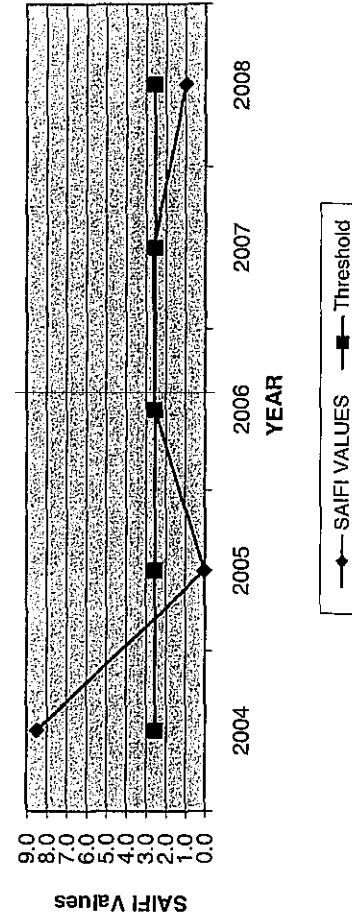
SAIFI Values For NYSA12



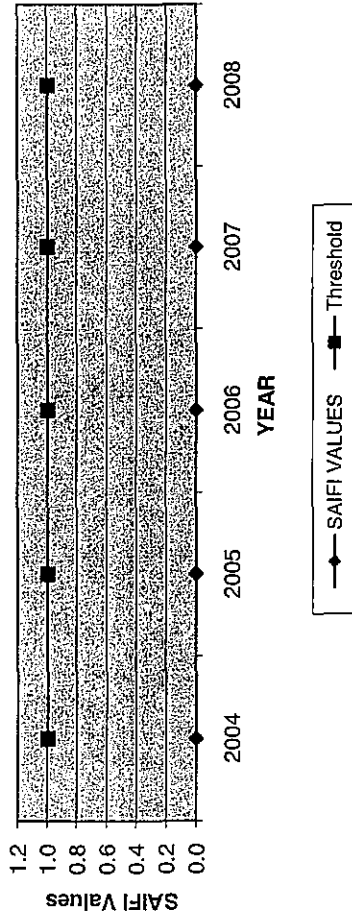
SAIFI Values For NYSA13



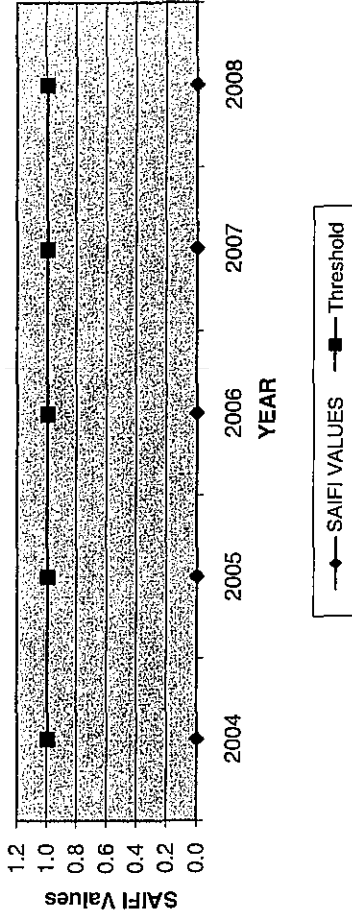
SAIFI Values For NYSA14



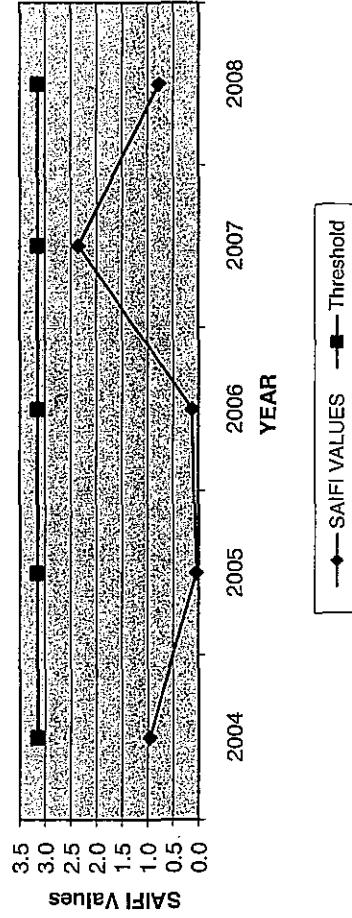
SAIFI Values For OBPR01



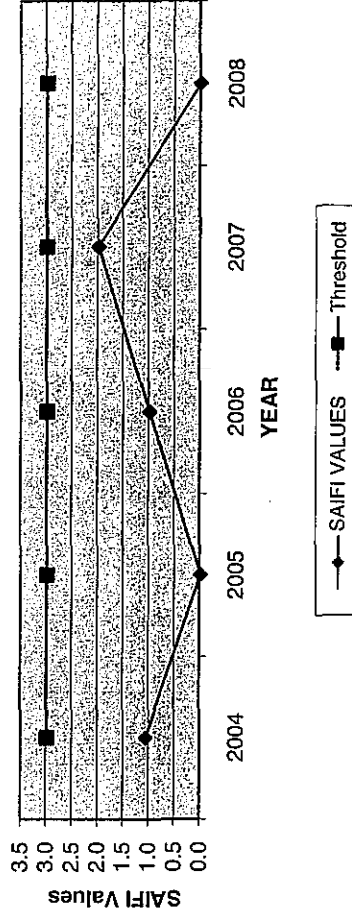
SAIFI Values For OBPR12



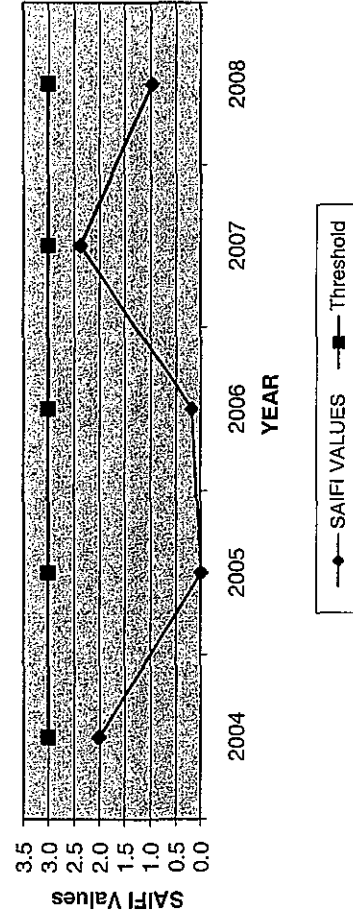
SAIFI Values For OIDA11



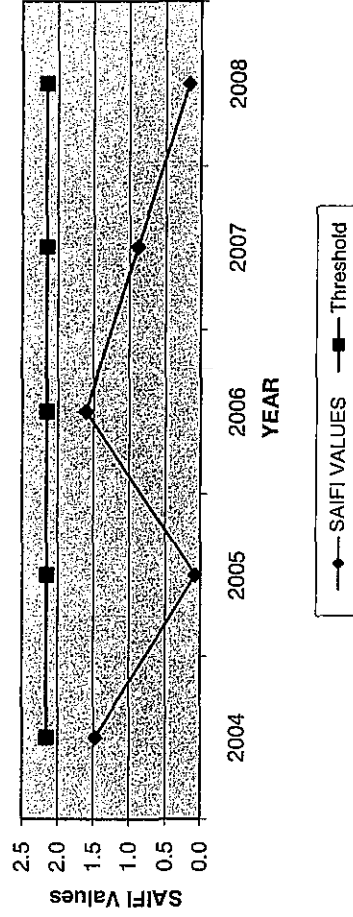
SAIFI Values For OIDA12



SAIFI Values For ONTO14

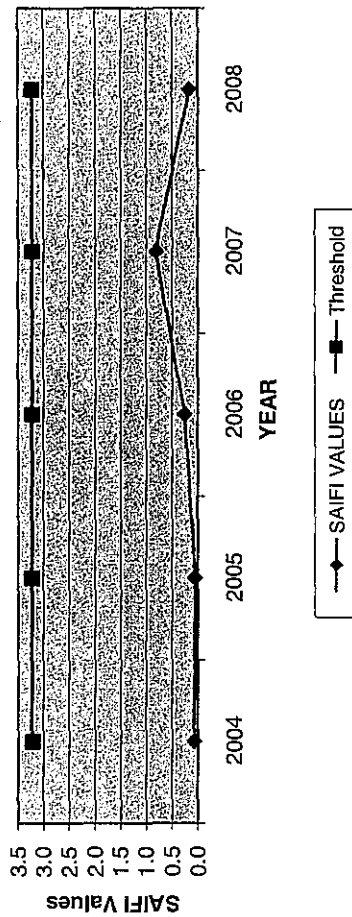


SAIFI Values For ONTO18

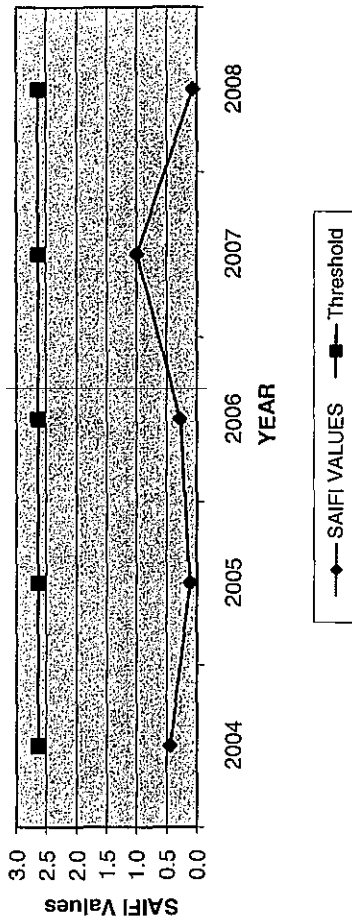


CHARTS - Circuit SAIIFI Values

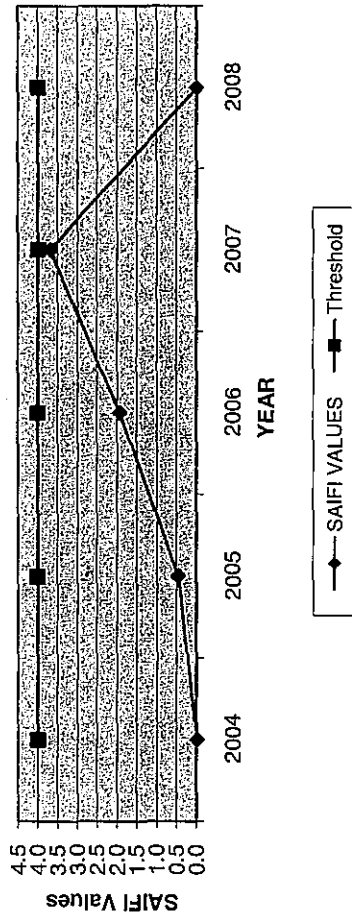
SAIFI Values For ONTO19



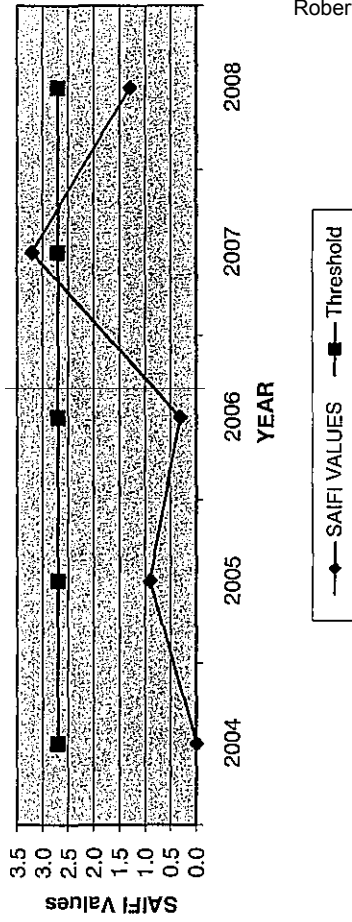
SAIFI Values For ONTO20



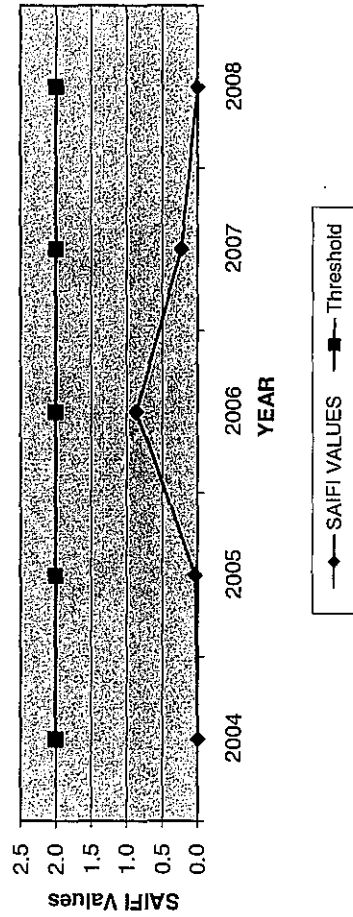
SAIFI Values For ONTO23



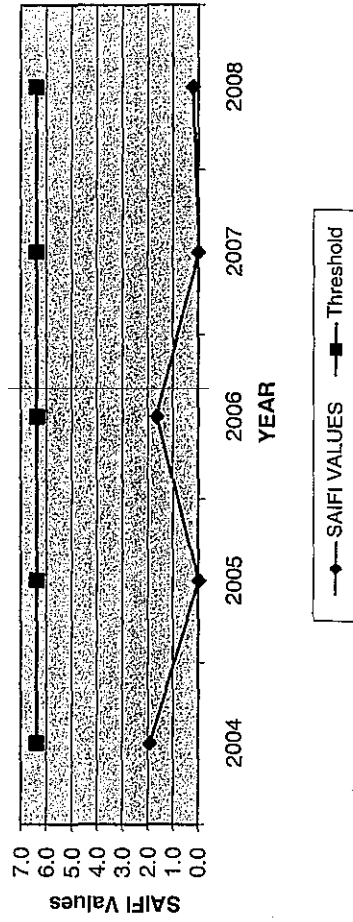
SAIFI Values For ONTO24



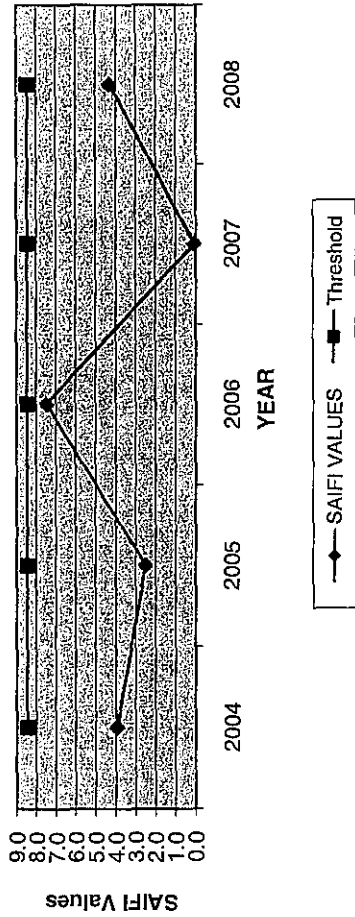
SAIFI Values For ONTO25



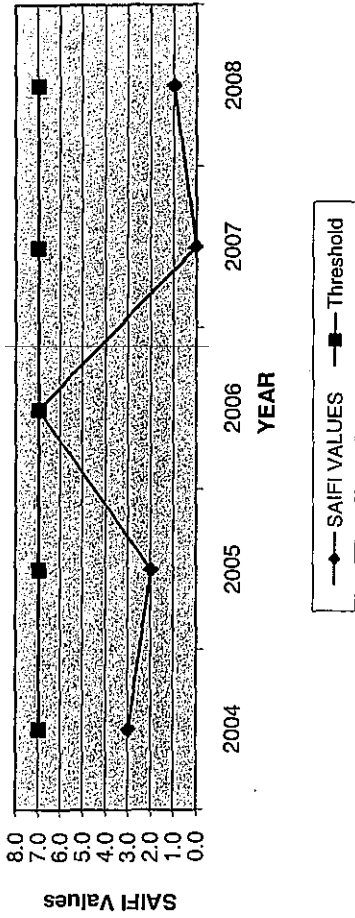
SAIFI Values For OYDM11



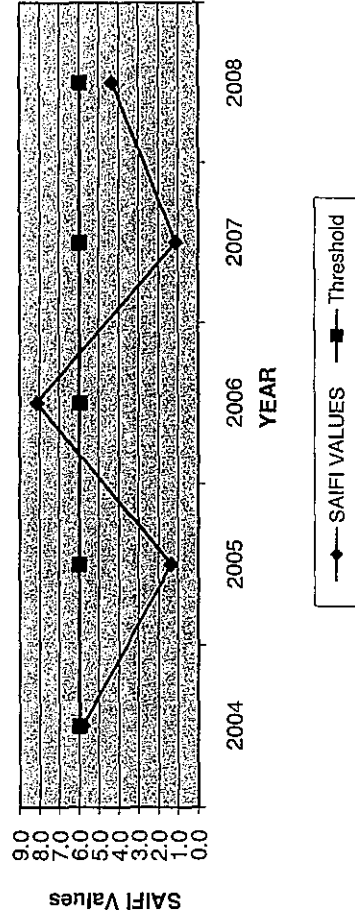
SAIFI Values For PNCK11



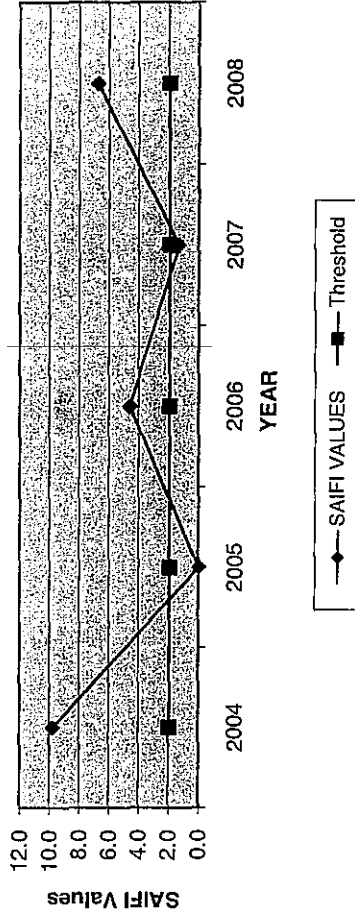
SAIFI Values For PNCK12



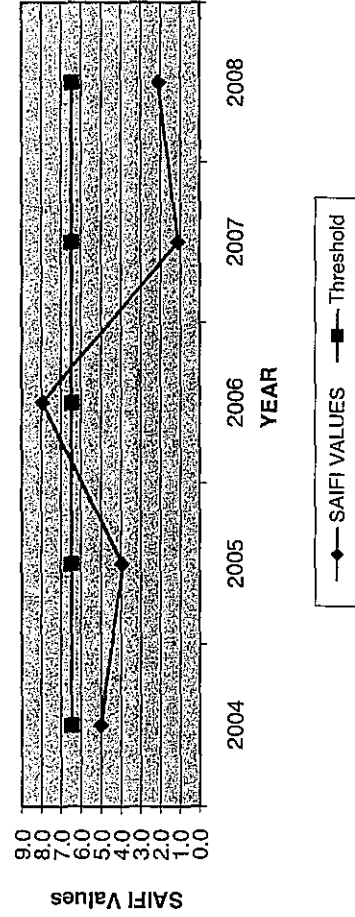
SAIFI Values For PRMA42



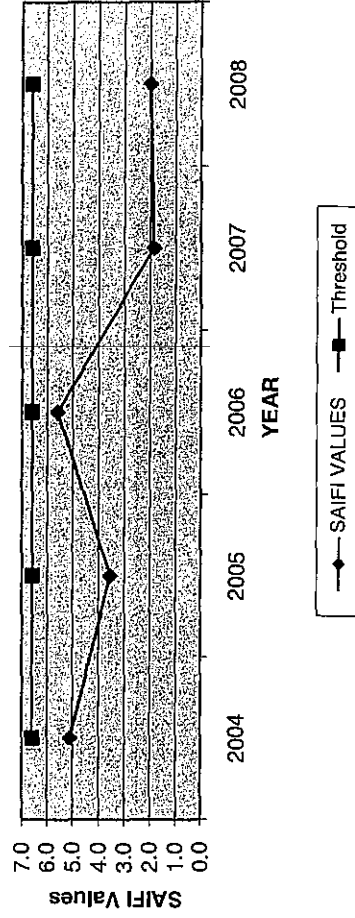
SAIFI Values For RKVL11



SAIFI Values For UNTY11



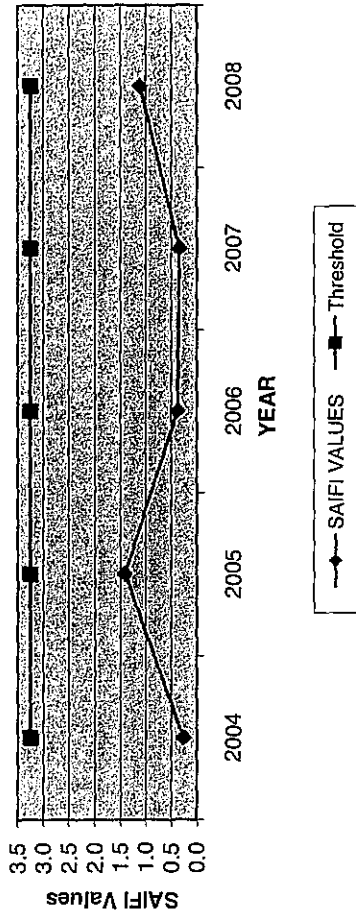
SAIFI Values For UNTY12



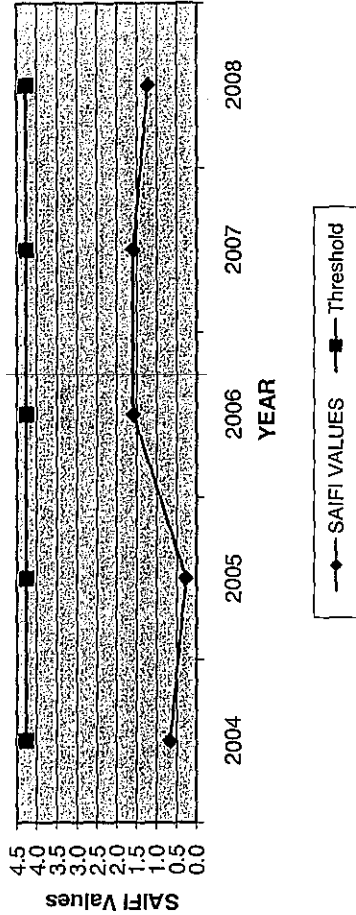


CHARTS - Circuit SAIFI Values

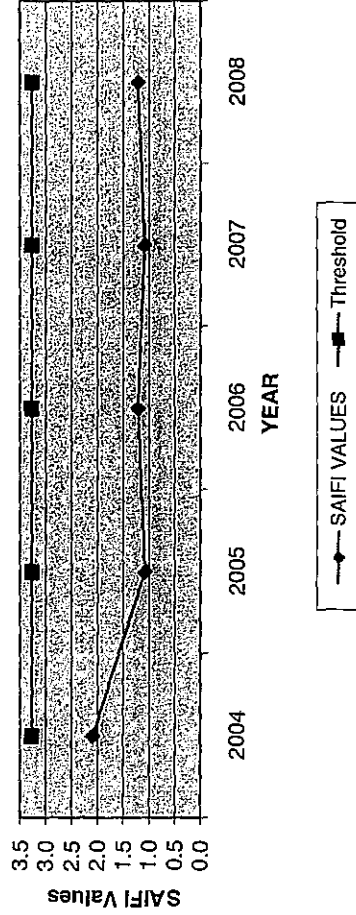
SAIFI Values For VALE11



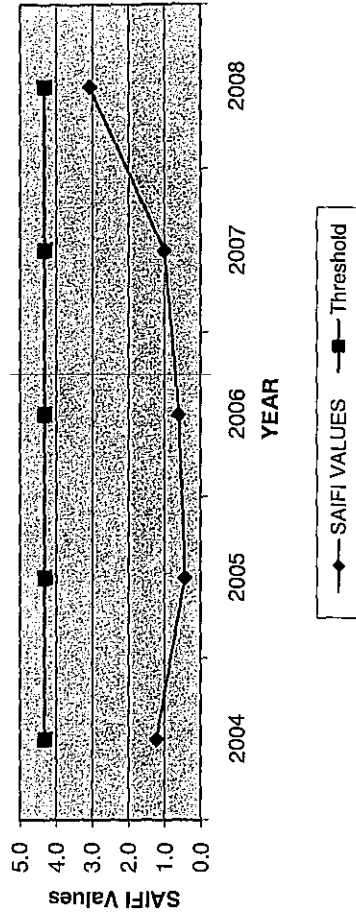
SAIFI Values For VALE13



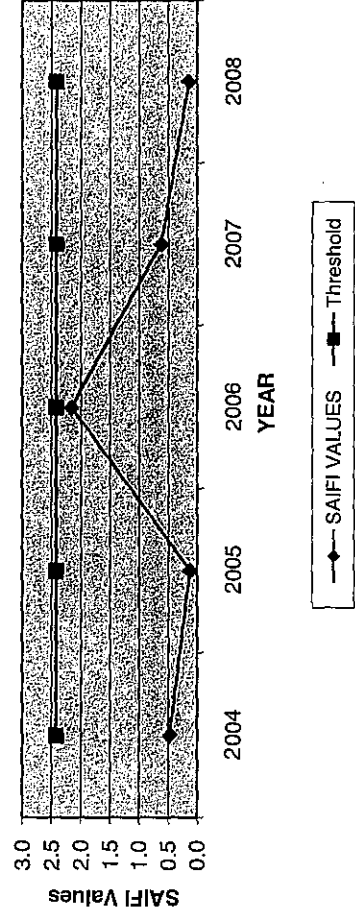
SAIFI Values For VALE14



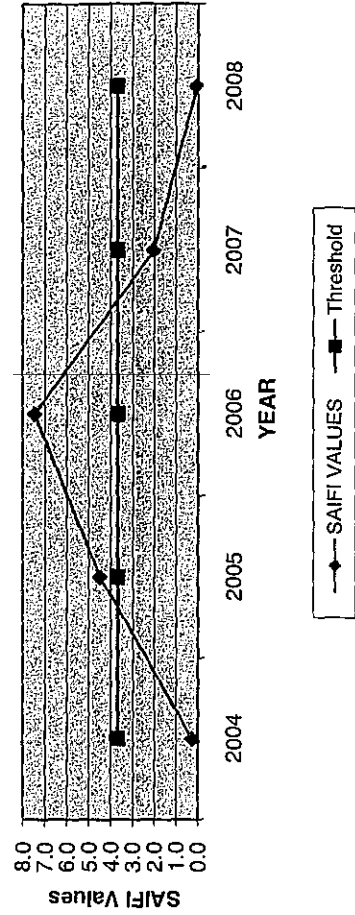
SAIFI Values For VALE15

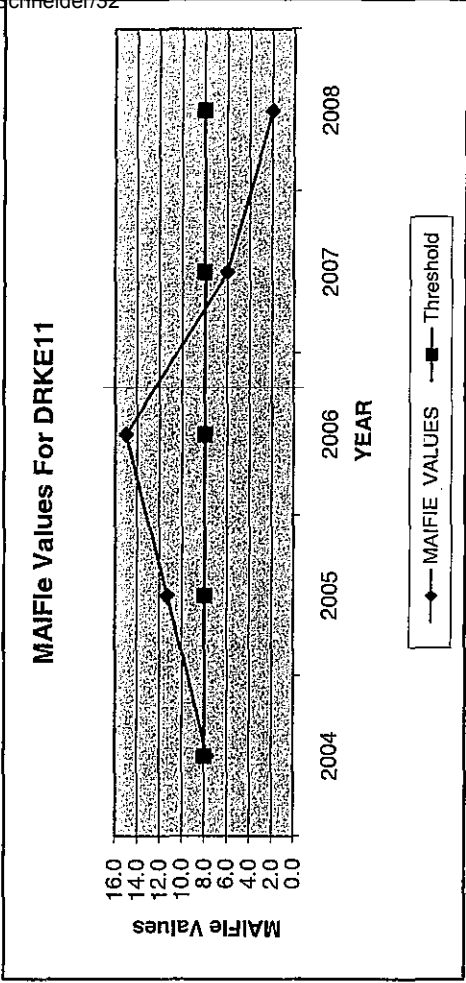
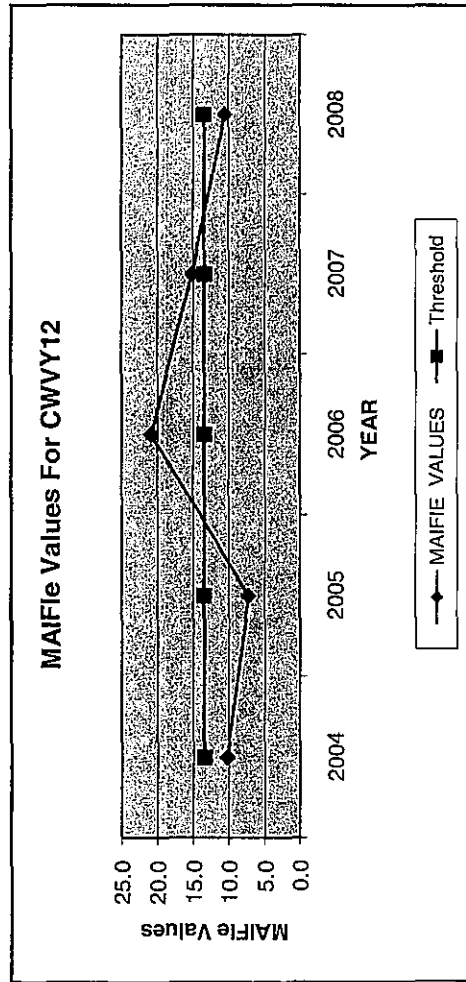
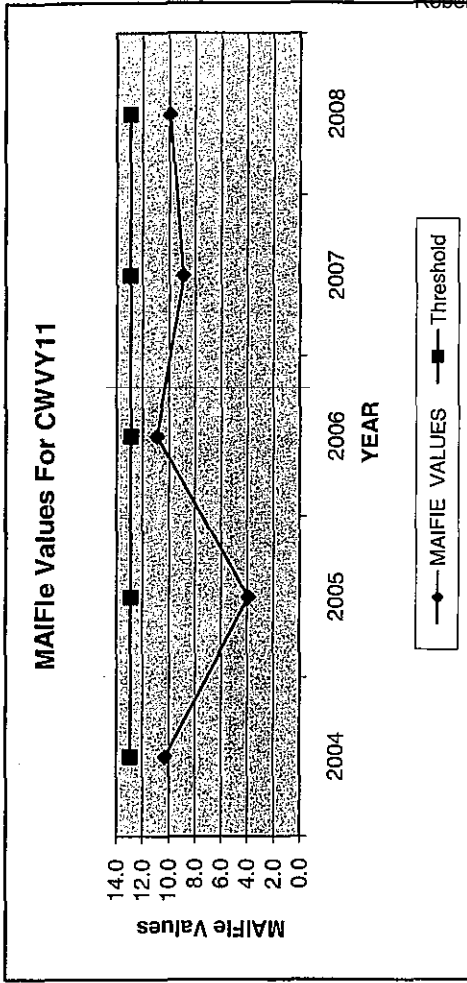
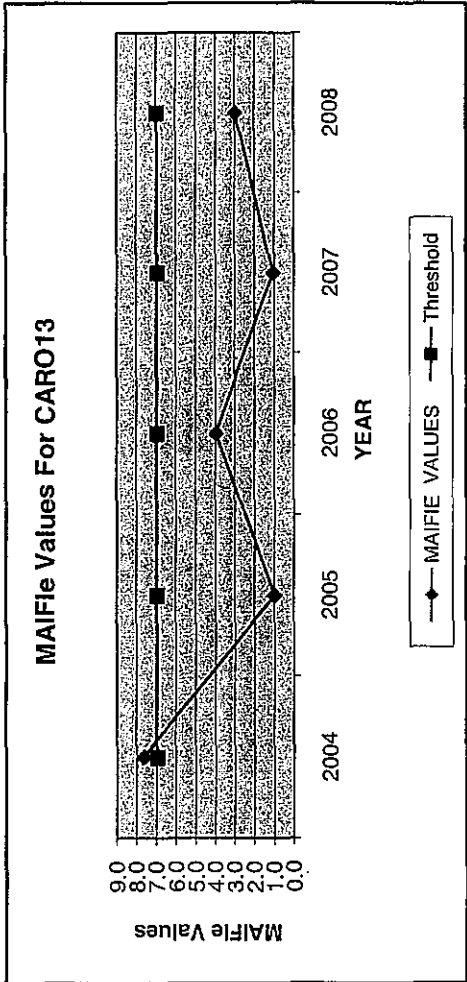
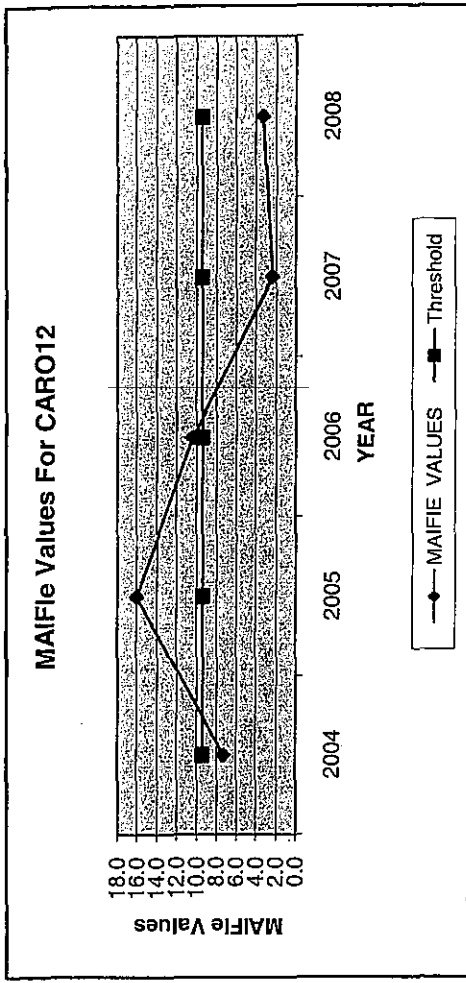
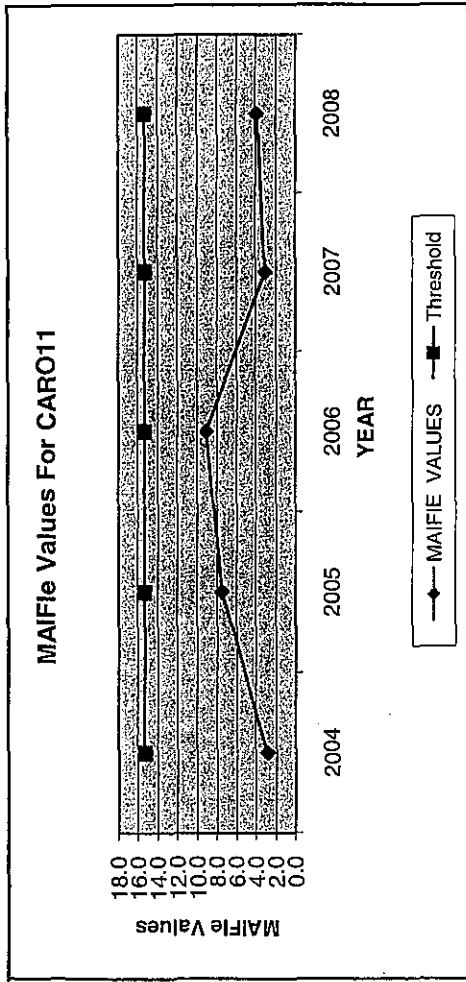


SAIFI Values For WESR13



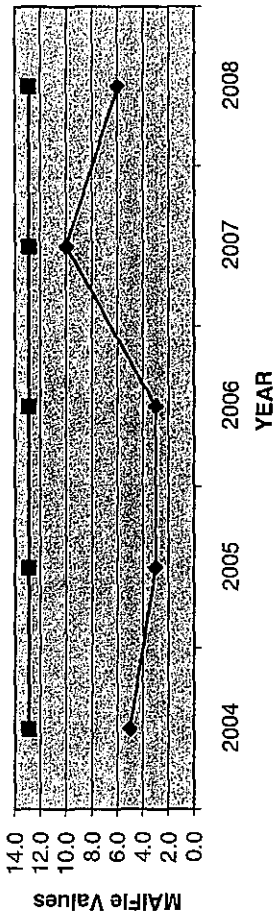
SAIFI Values For WESR14



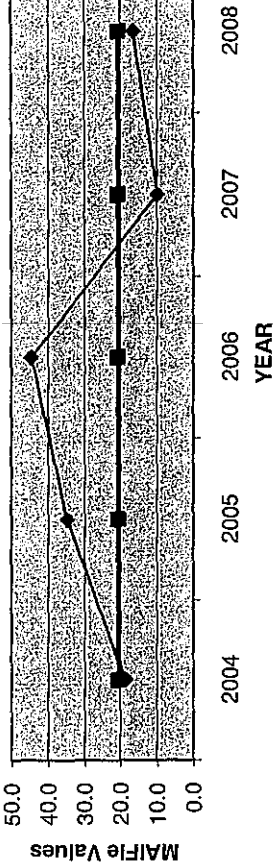


CHARTS - Circuit MAIFie Values

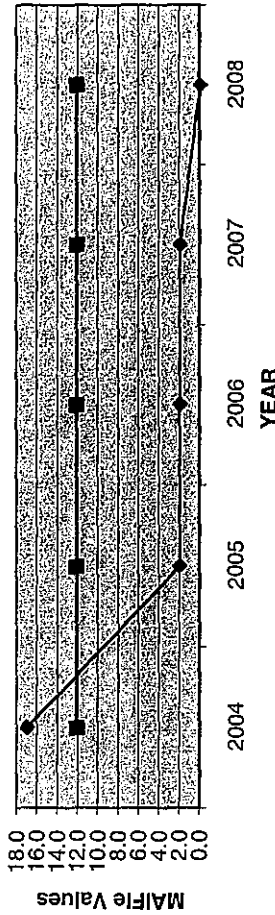
MAIFie Values For DUKE11



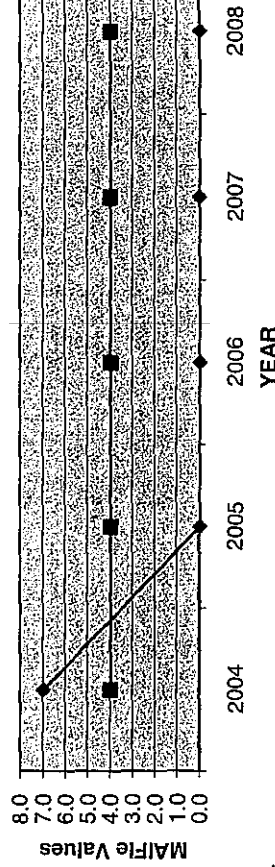
MAIFie Values For DWSY11



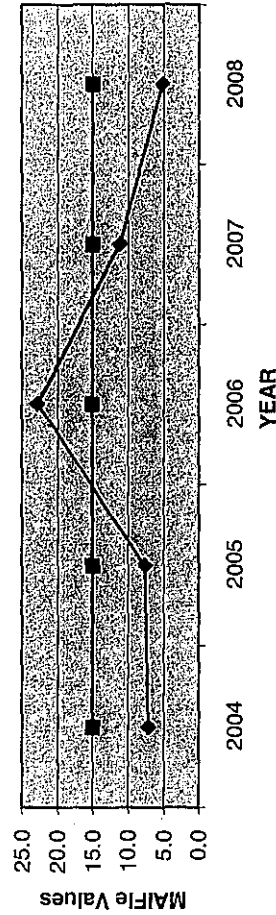
MAIFie Values For ESTN11



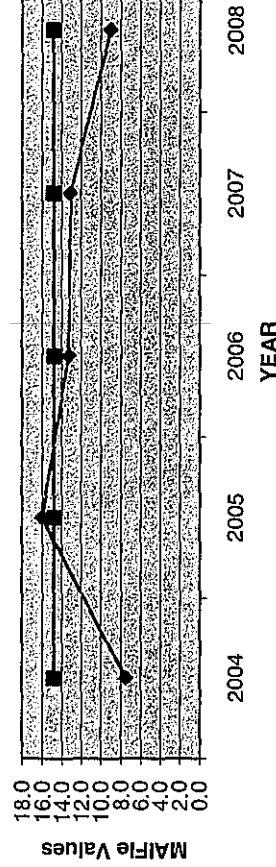
MAIFie Values For HCSU11

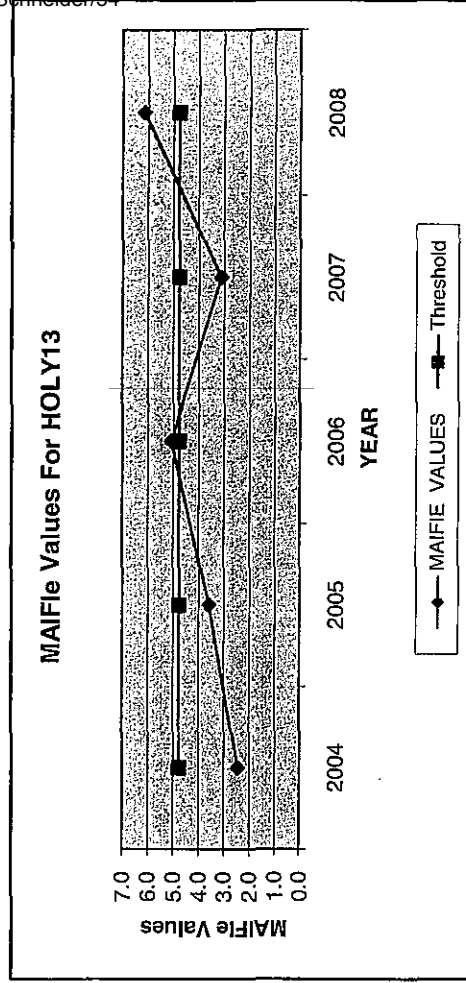
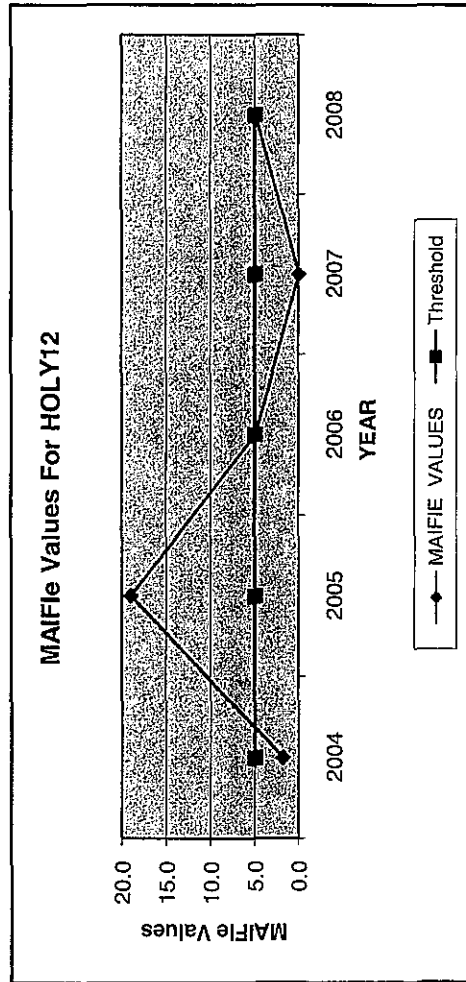
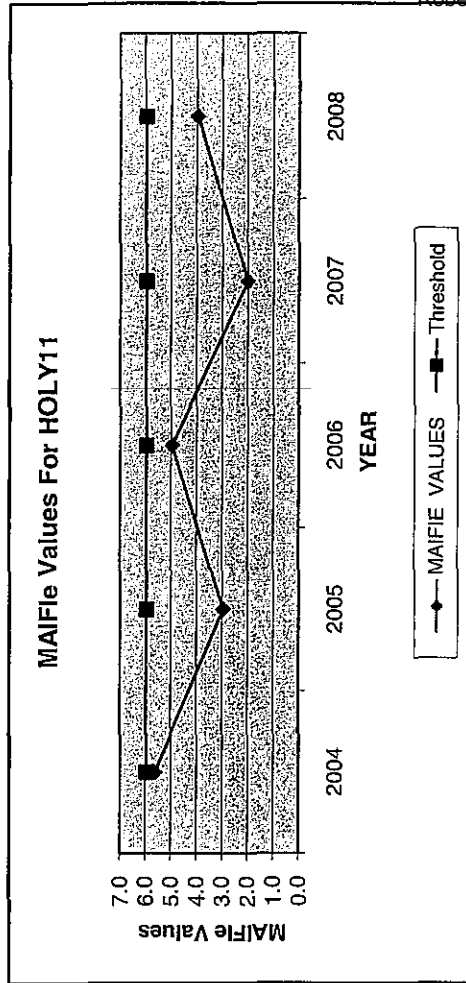
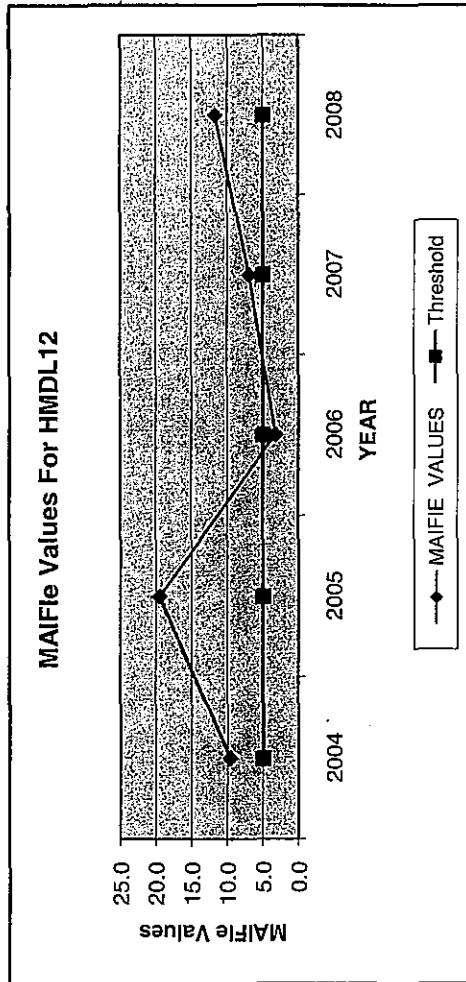
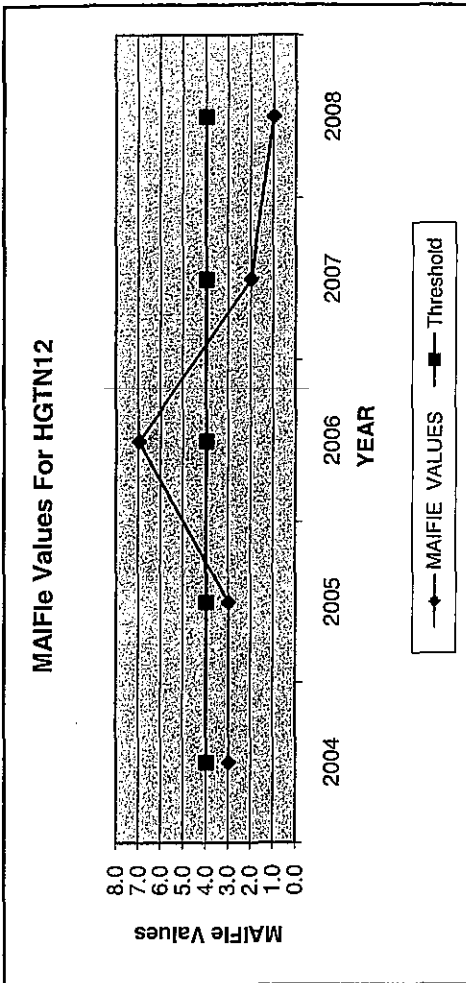
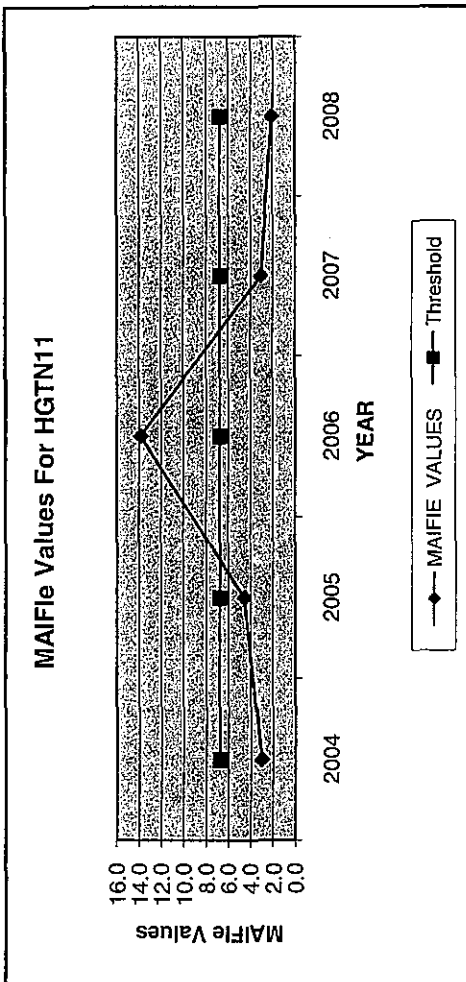


MAIFie Values For HFWY11



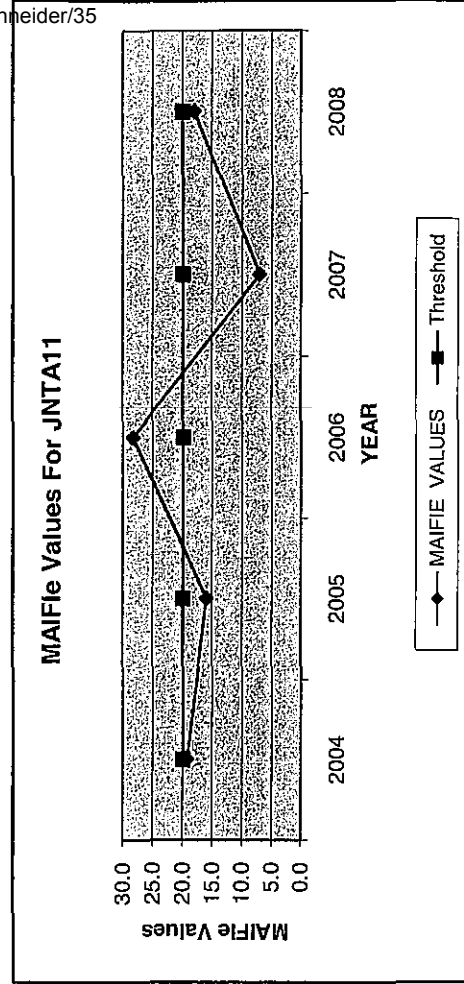
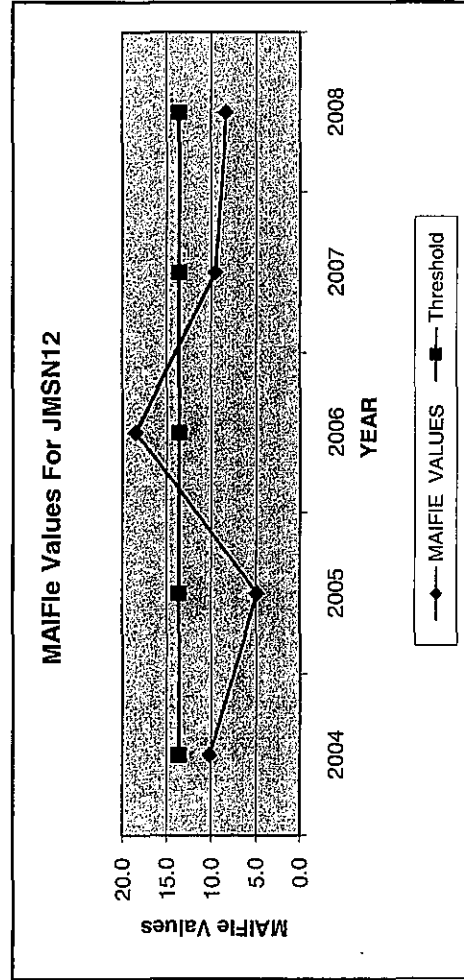
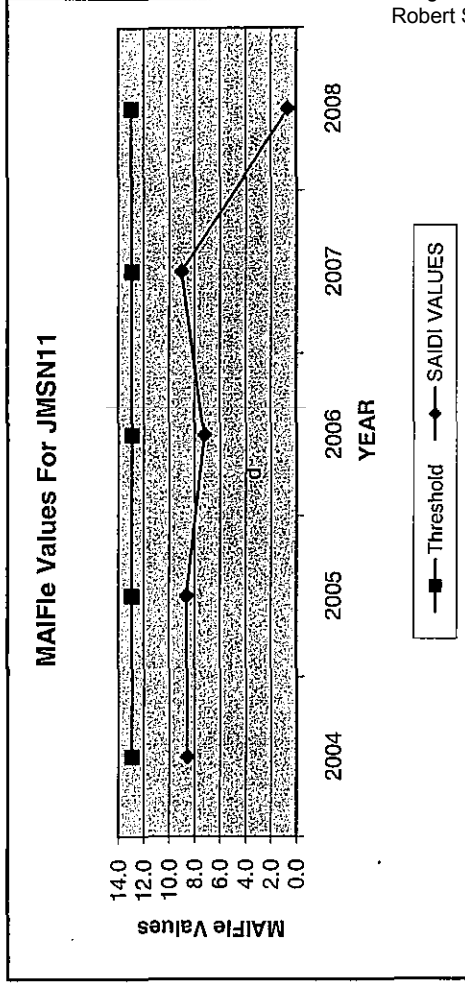
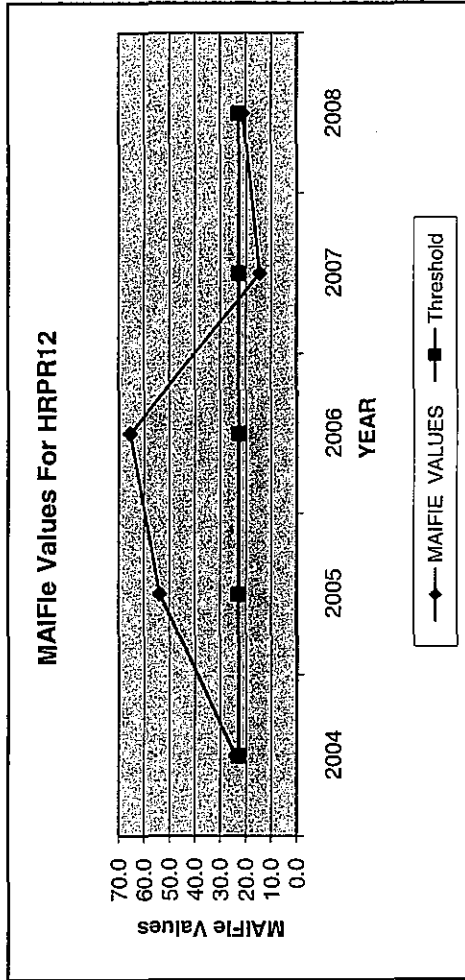
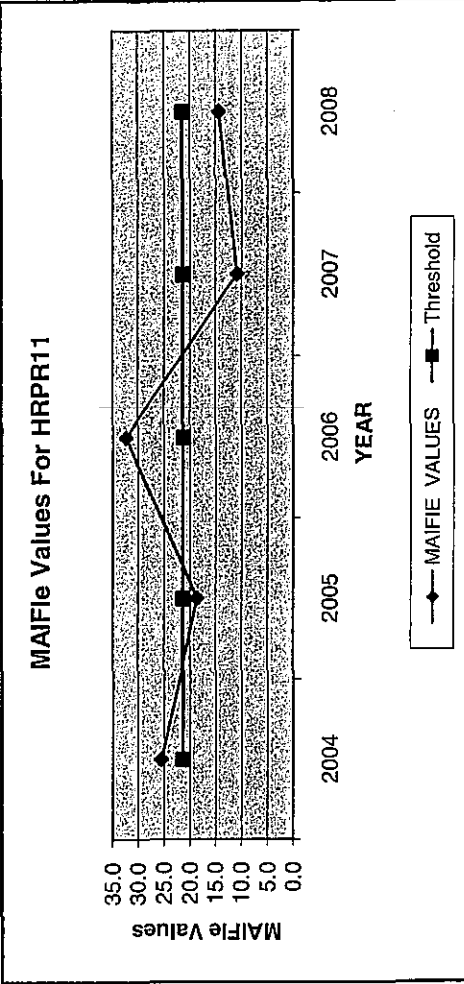
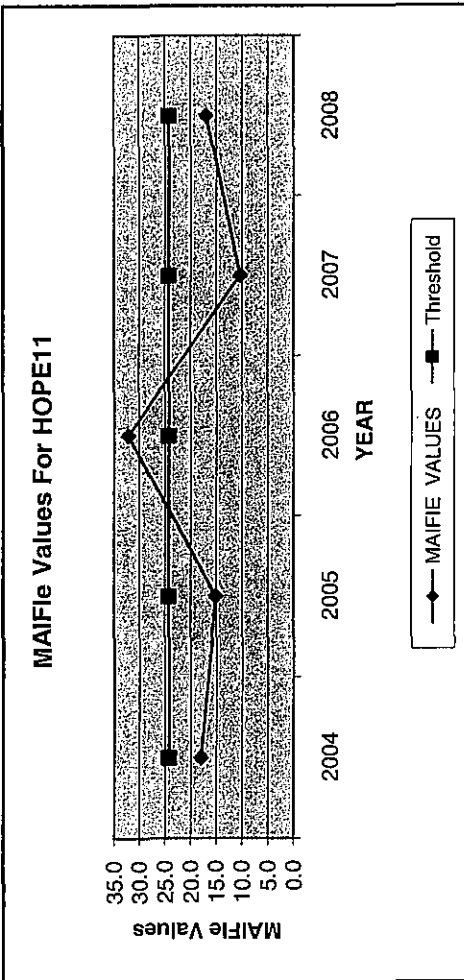
MAIFie Values For HFWY12



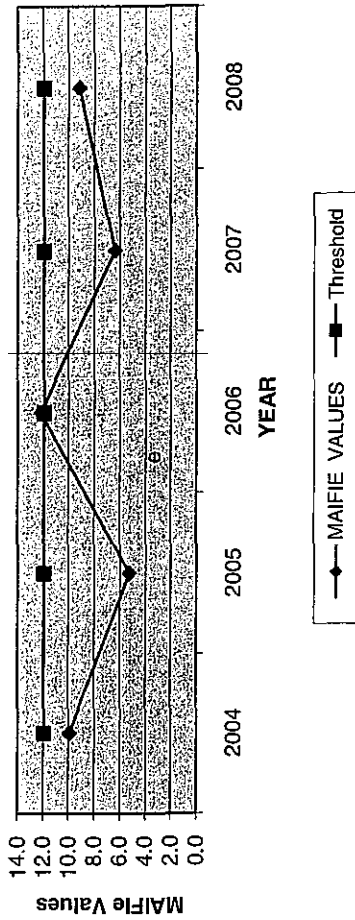




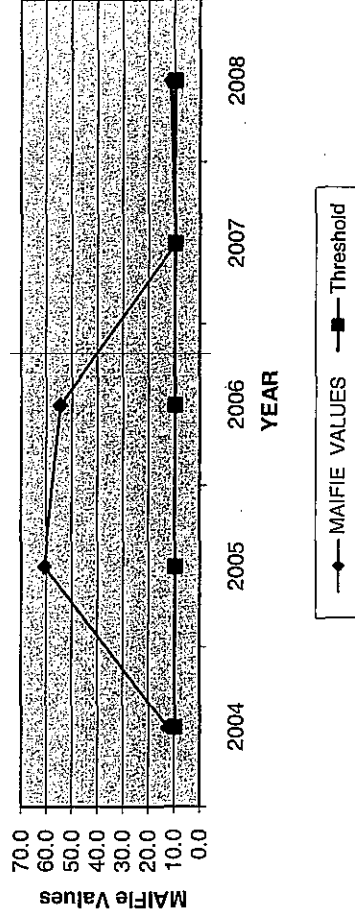
CHARTS - Circuit MAIFle Values



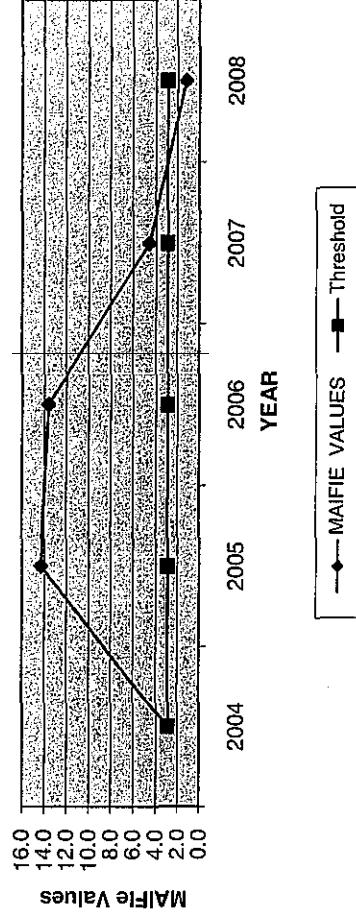
MAIFie Values For JNVY11



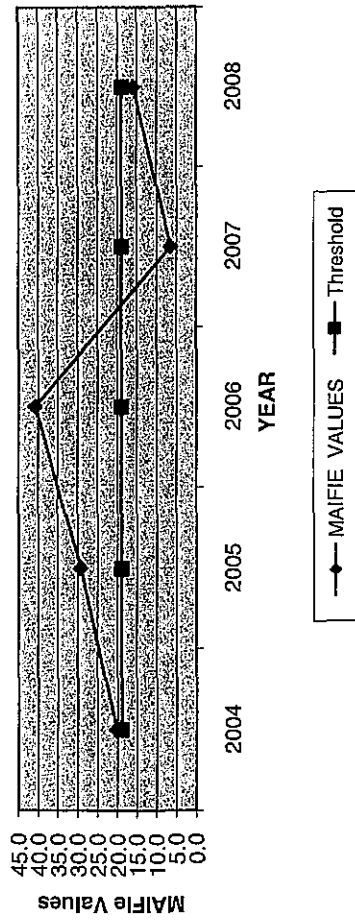
MAIFie Values For JNVY31



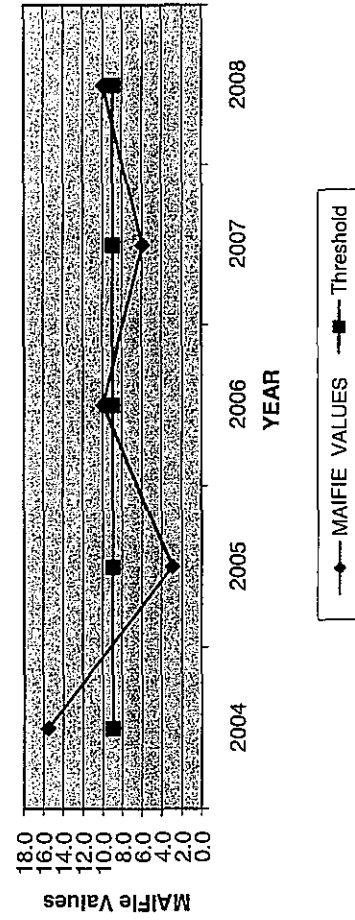
MAIFie Values For LIME12



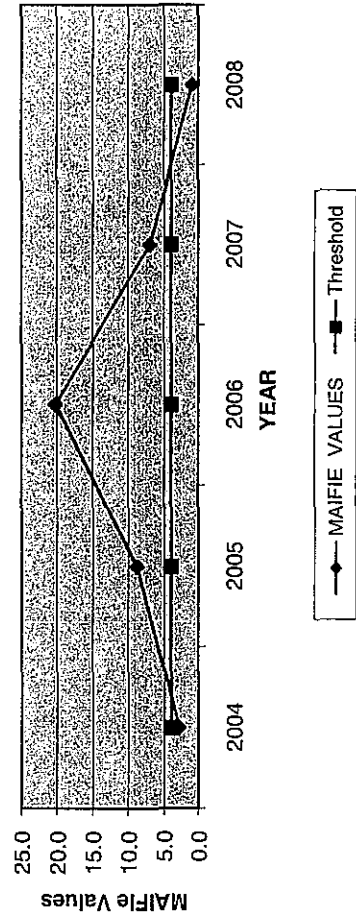
MAIFie Values For JNTA12



MAIFie Values For JNVY12

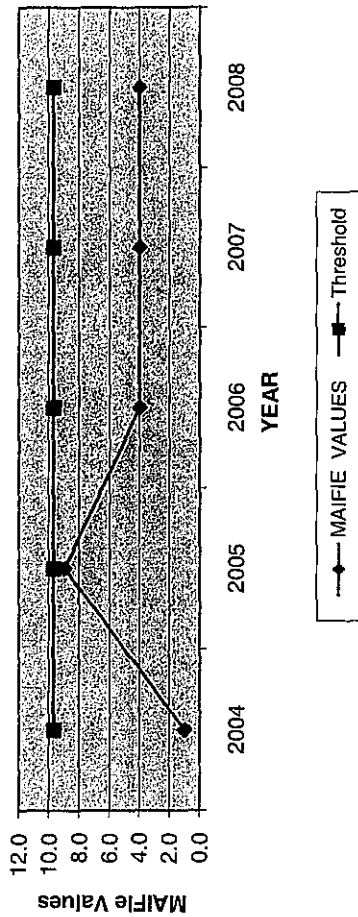


MAIFie Values For LIME11

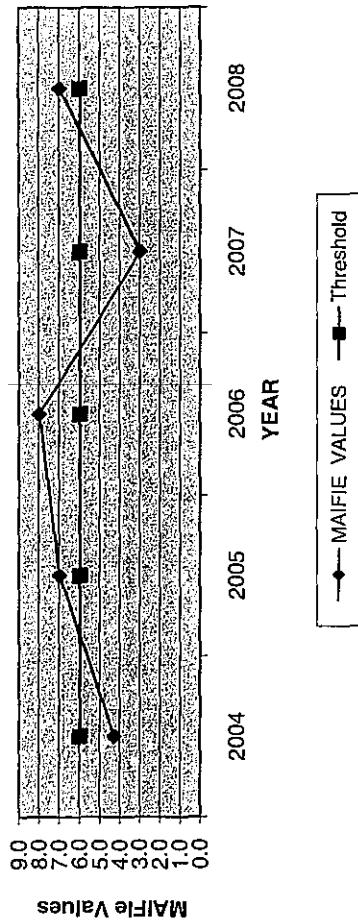


CHARTS - Circuit MAIFie Values

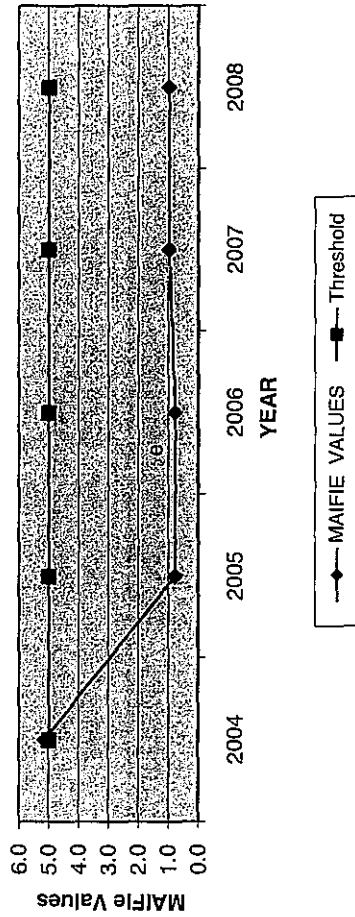
MAIFie Values For MRBT41



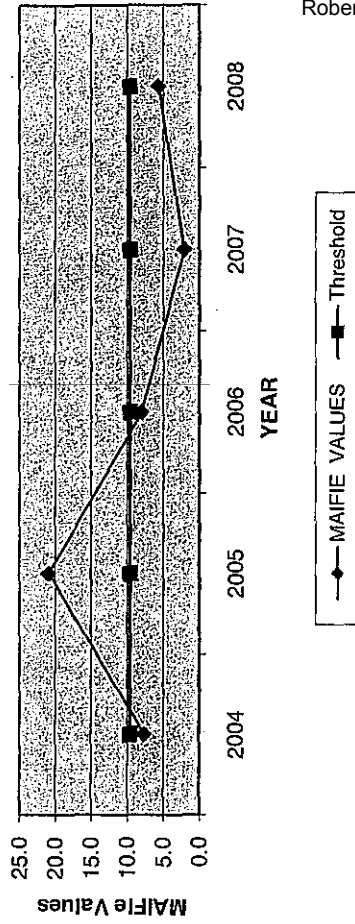
MAIFie Values For MRBT42



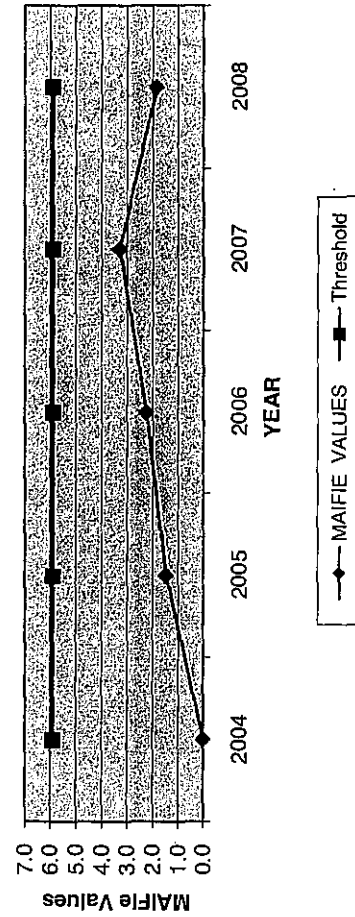
MAIFie Values For NYSA11



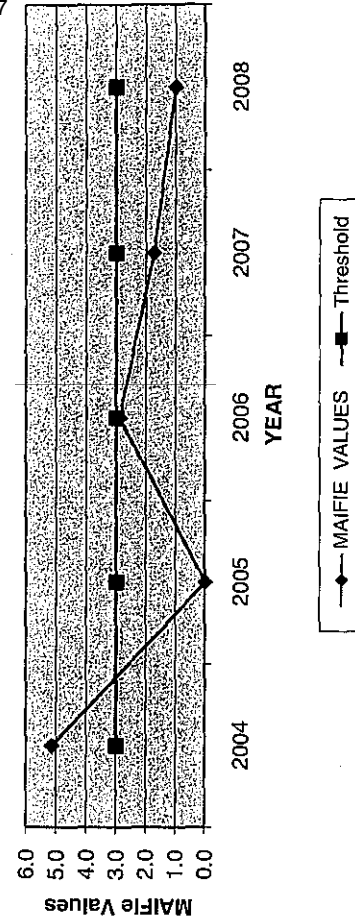
MAIFie Values For NYSA12



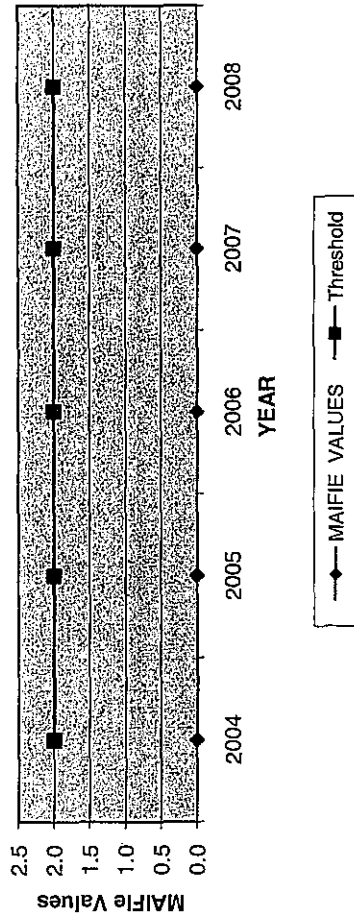
MAIFie Values For NYSA13



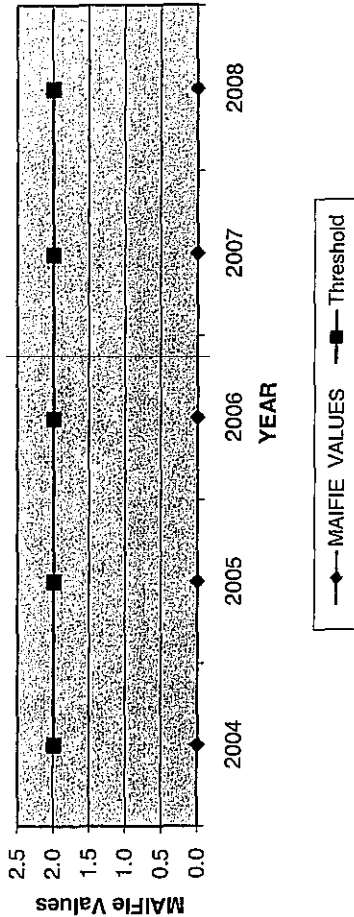
MAIFie Values For NYSA14



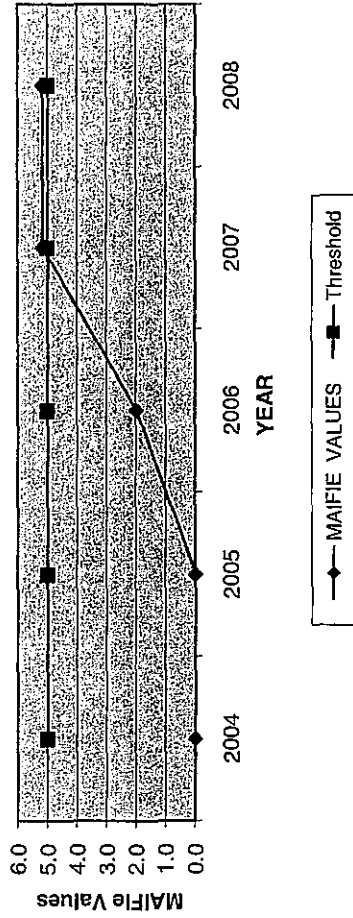
MAIFie Values For OBPR01



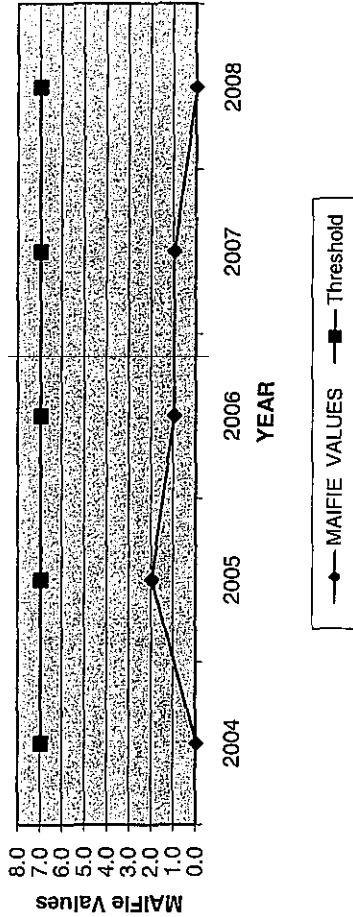
MAIFie Values For OBPR12



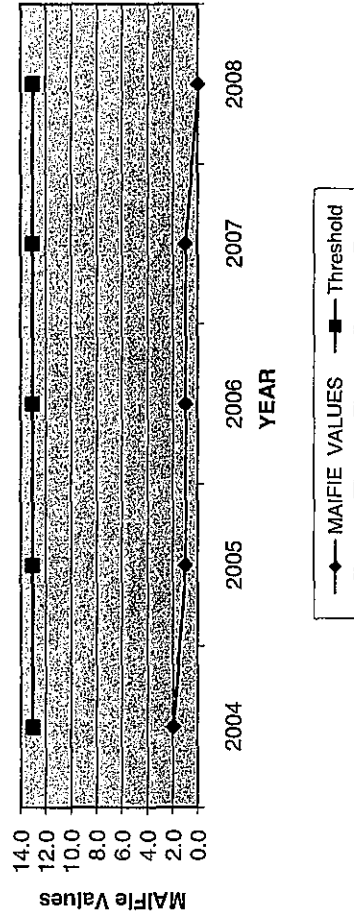
MAIFie Values For OIDA11



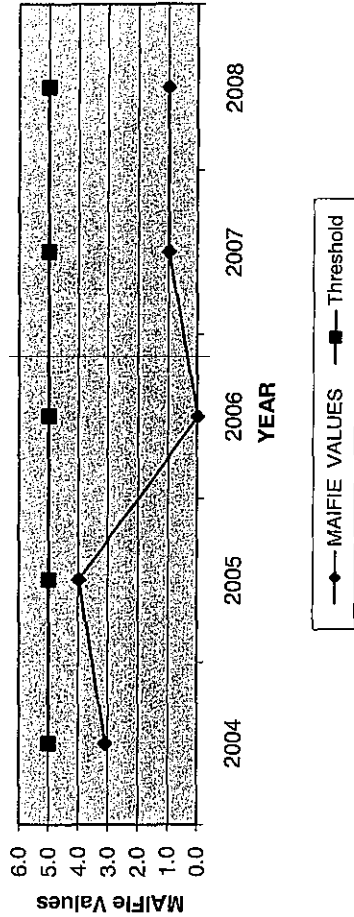
MAIFie Values For OIDA12



MAIFie Values For ONTO14



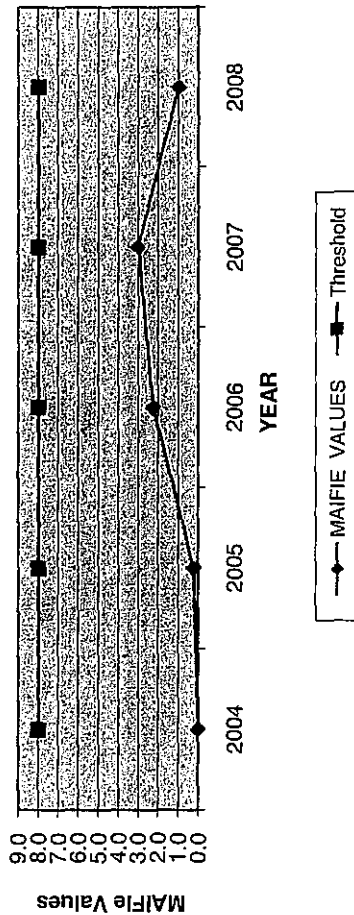
MAIFie Values For ONTO18



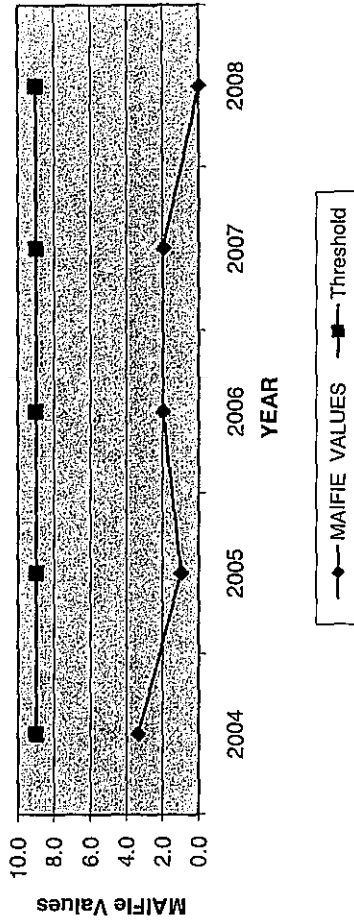


CHARTS - Circuit MAIFie Values

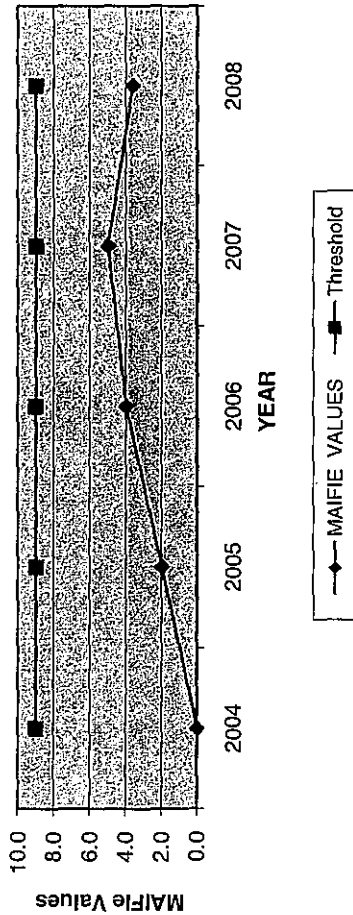
MAIFie Values For ONTO19



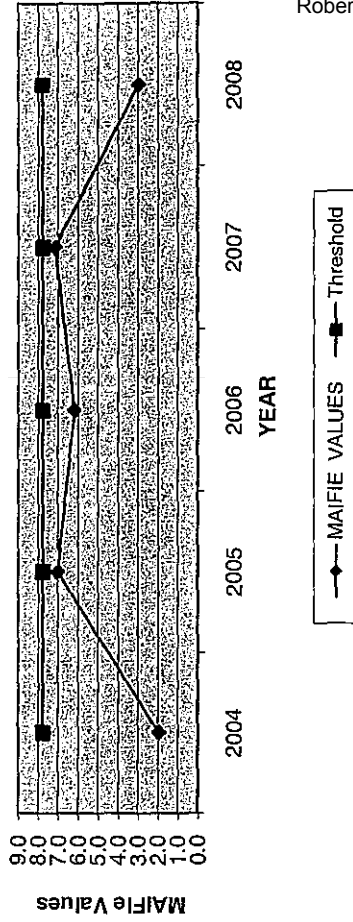
MAIFie Values For ONTO20



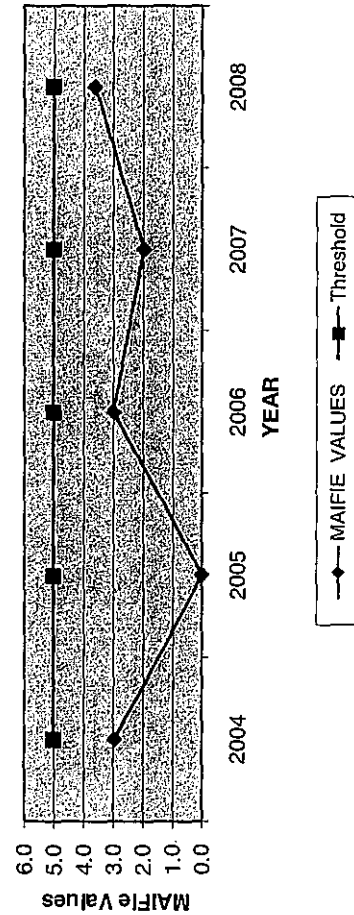
MAIFie Values For ONTO23



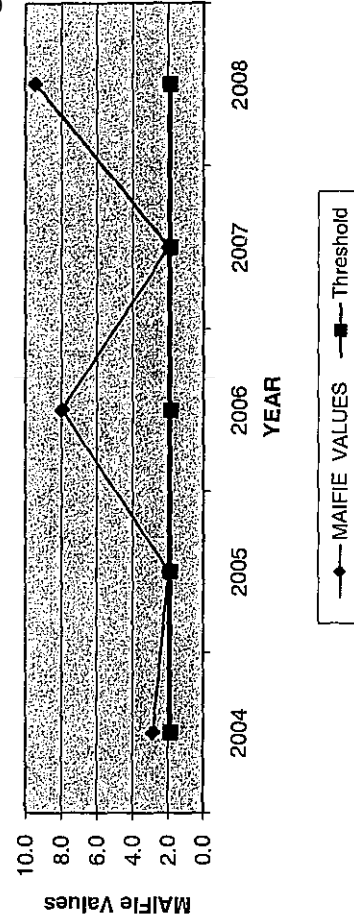
MAIFie Values For ONTO24



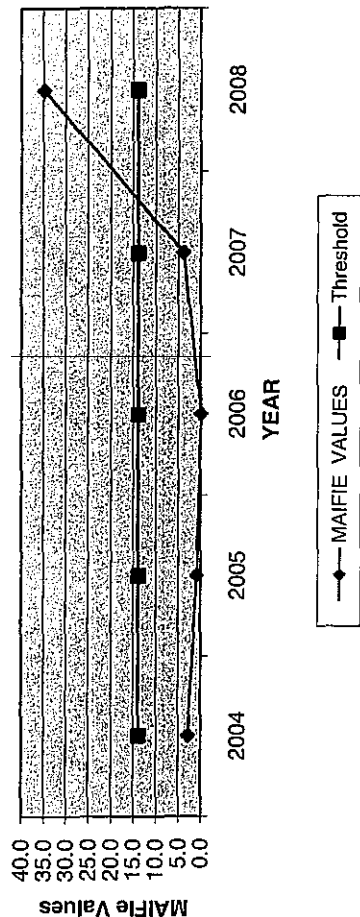
MAIFie Values For ONTO25



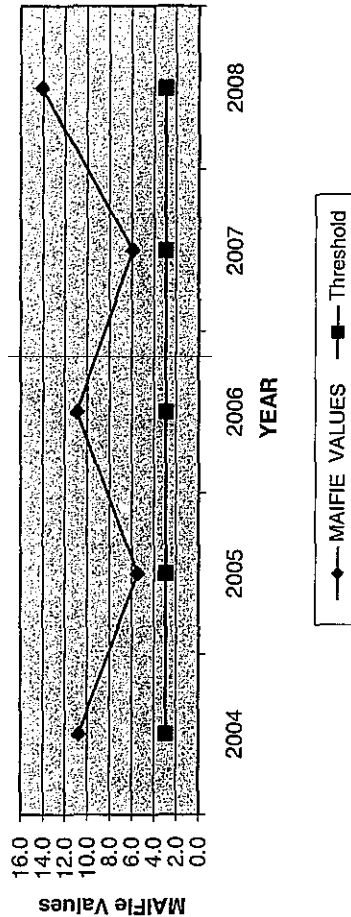
MAIFie Values For OYDM11



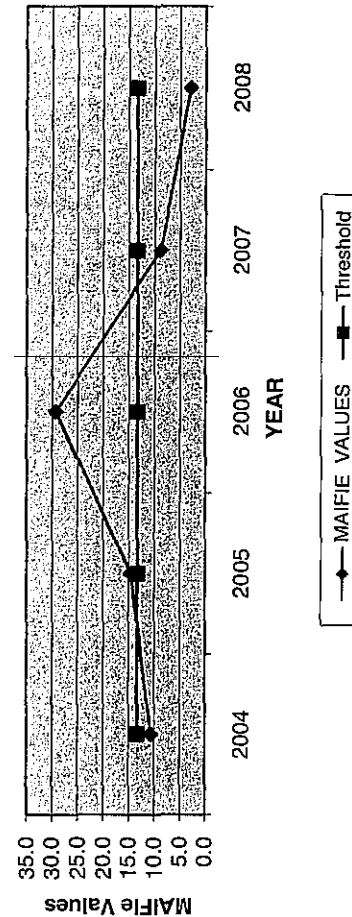
MAIFie Values For PNCK12



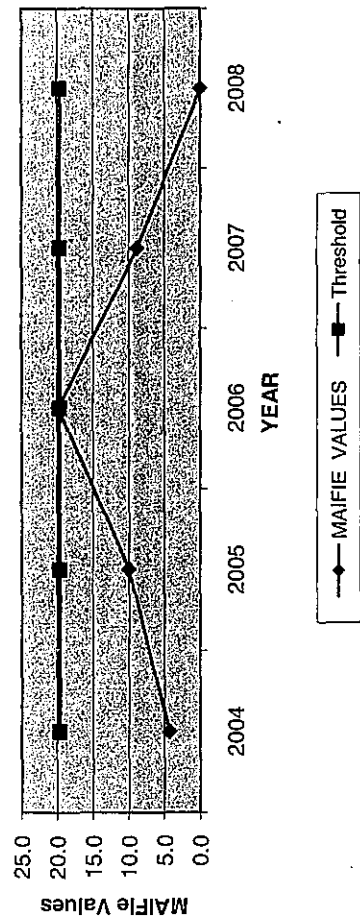
MAIFie Values For RKVL11



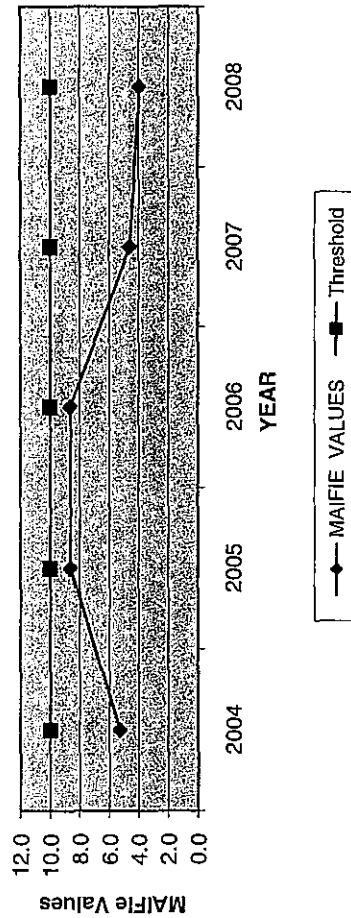
MAIFie Values For UNTY12



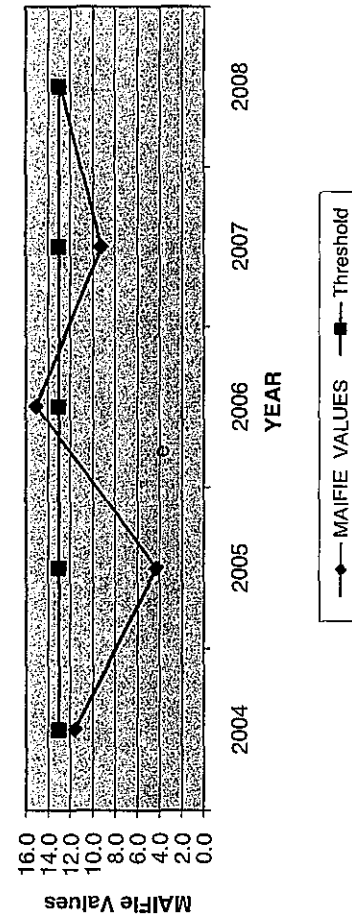
MAIFie Values For PNCK11



MAIFie Values For PRMA42

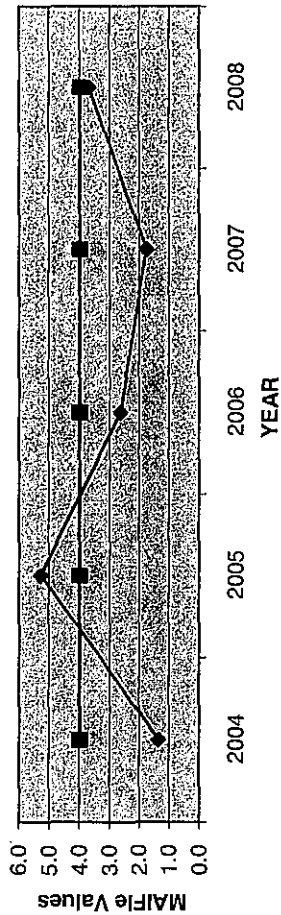


MAIFie Values For UNTY11

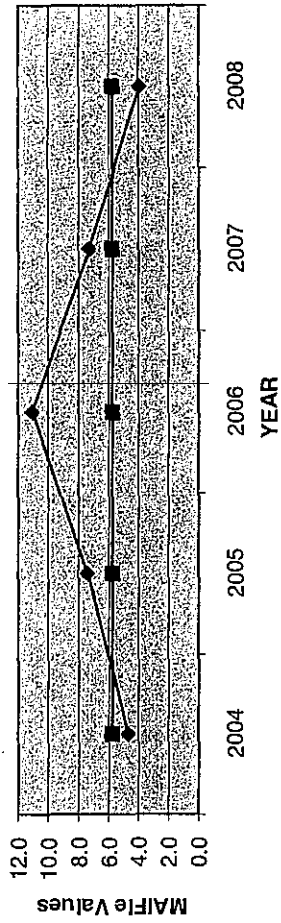


CHARTS - Circuit MAIFie Values

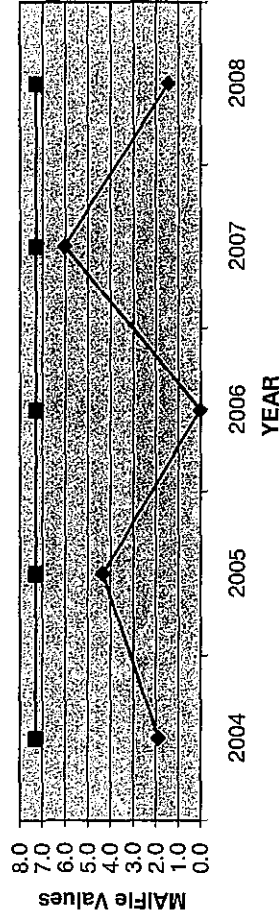
MAIFie Values For VALE11



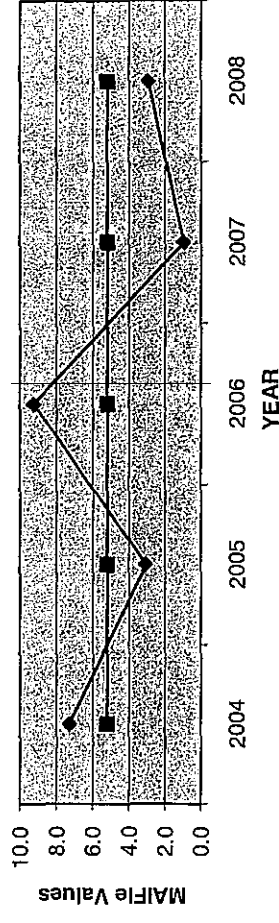
MAIFie Values For VALE13



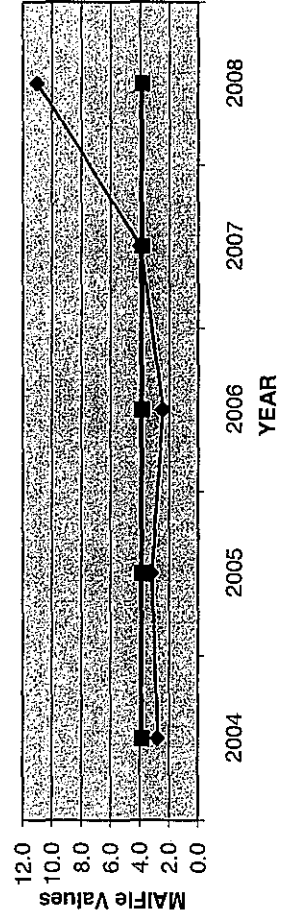
MAIFie Values For VALE14



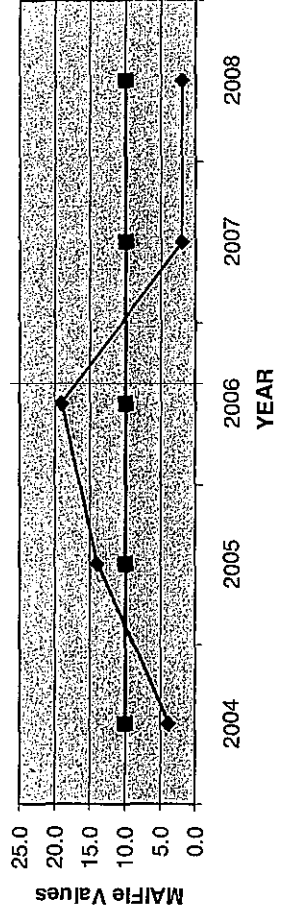
MAIFie Values For VALE15



MAIFie Values For WESR13



MAIFie Values For WESR14



5 Years of Sustained Interruption Causes

**TABLE 5**

CAUSE	NUMBER of SUSTAINED INTERRUPTIONS					PERCENT of TOTAL SUSTAINED INTERRUPTIONS				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
ADVERSE ENVIRONMENT	1	20	15	16	2	0.17	3.04	2.34	3.21	0.31
ADVERSE WEATHER	56	62	134	59	48	9.43	9.44	20.94	11.82	7.37
CUSTOMERS EQUIPMENT	2	*105	*60	*42	*15	0.34	0.00	0.00	0.00	0.00
EQUIPMENT FAILURES	68	169	118	80	151	11.45	25.72	18.44	16.03	23.22
FOREIGN INTERFERENCE	92	115	74	71	119	15.49	17.50	11.56	14.23	18.22
HUMAN ELEMENT	1	1	7	21	36	0.17	0.15	1.09	4.21	5.53
LIGHTNING	13	11	18	3	9	2.19	1.67	2.81	0.60	1.38
LOSS OF SUPPLY	116	10	5	13	38	19.53	1.52	0.78	2.61	5.83
MAJOR EVENTS	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
SCHEDULED OUTAGES	84	78	69	91	112	14.14	11.87	10.78	18.24	17.22
TREE CONTACTS	16	32	46	27	22	2.69	4.87	7.19	5.41	3.38
UNKNOWN	145	159	154	118	114	24.41	24.20	24.06	23.65	17.51
TOTAL	594	657	640	499	651	100.00	100.00	100.00	100.00	100.00

\* = Not Included in Calculations

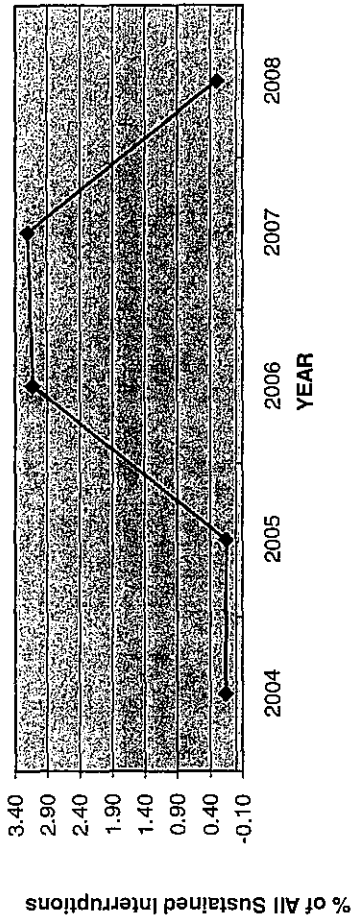


## 2008 Sustained Interruption Cause Ranking

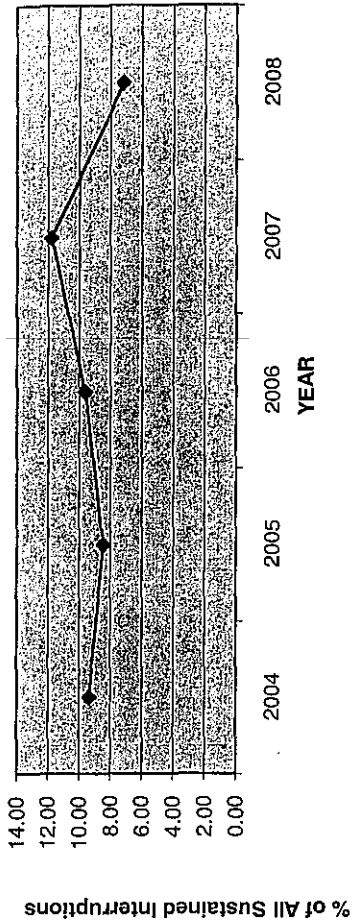
TABLE 6

CAUSE	OCCURRENCES	CUSTOMER HOURS OUT	OCCURRENCES RANKING	HOURS OUT RANKING
ADVERSE ENVIRONMENT	2	3.10	11	11
ADVERSE WEATHER	48	5,421.90	5	4
CUSTOMERS EQUIPMENT	*15	116.00	9	9
EQUIPMENT FAILURES	151	11,368.30	1	1
FOREIGN INTERFERENCE	119	7,816.00	2	3
HUMAN ELEMENT	36	1,811.30	7	7
LIGHTNING	9	97.80	10	10
LOSS OF SUPPLY	38	7,975.30	6	2
MAJOR EVENTS	0	0.00	12	12
SCHEDULED OUTAGES	112	4,999.60	4	5
TREE CONTACTS	22	335.00	8	8
UNKNOWN	114	3,185.60	3	6

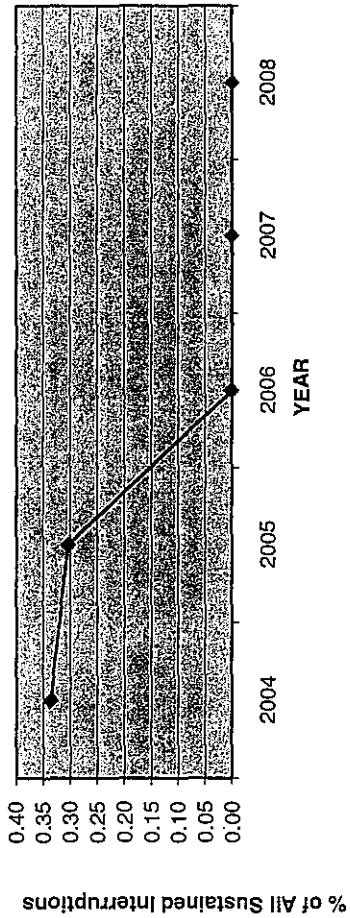
ADVERSE ENVIRONMENT



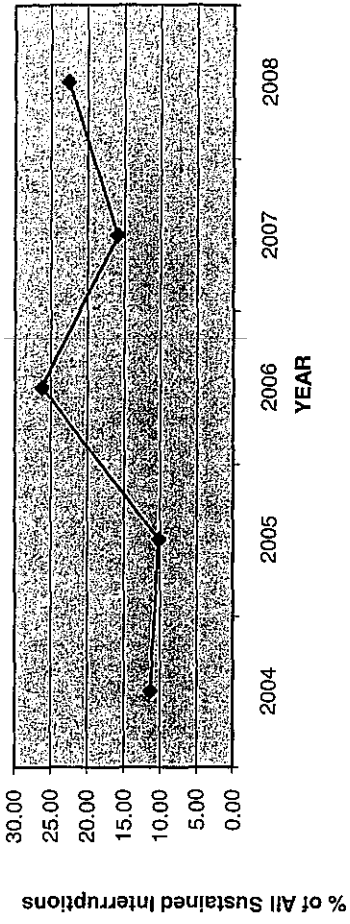
ADVERSE WEATHER



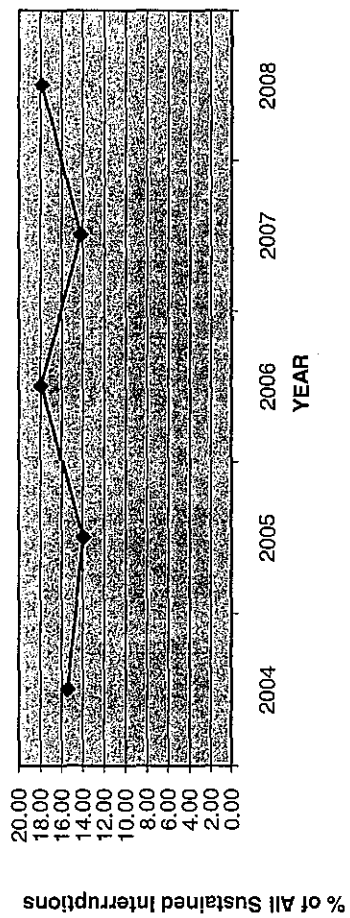
CUSTOMERS EQUIPMENT



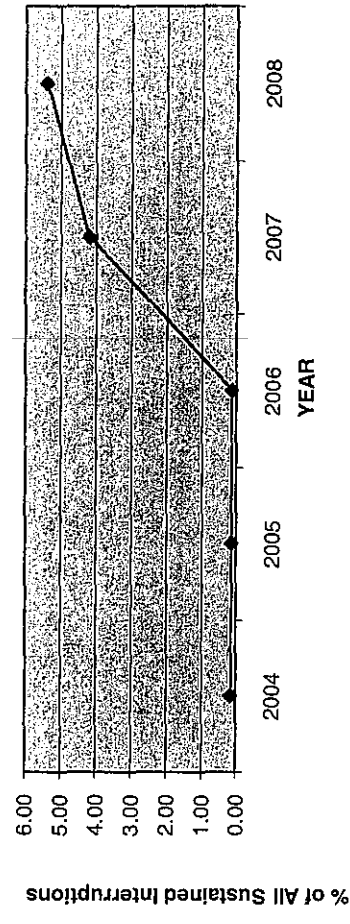
EQUIPMENT FAILURES



FOREIGN INTERFERENCE

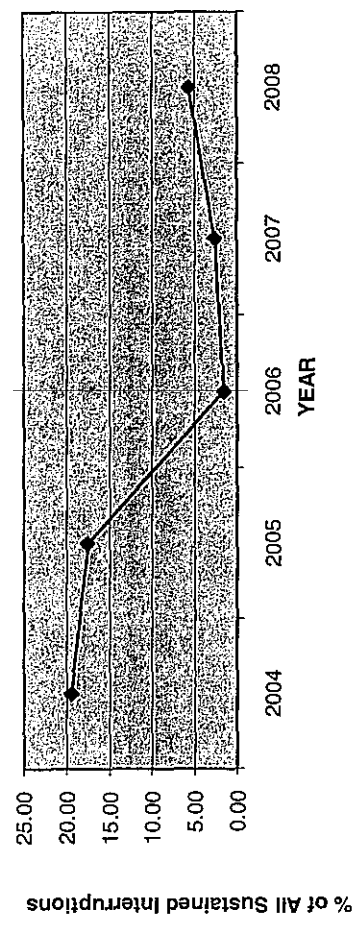


HUMAN ELEMENT

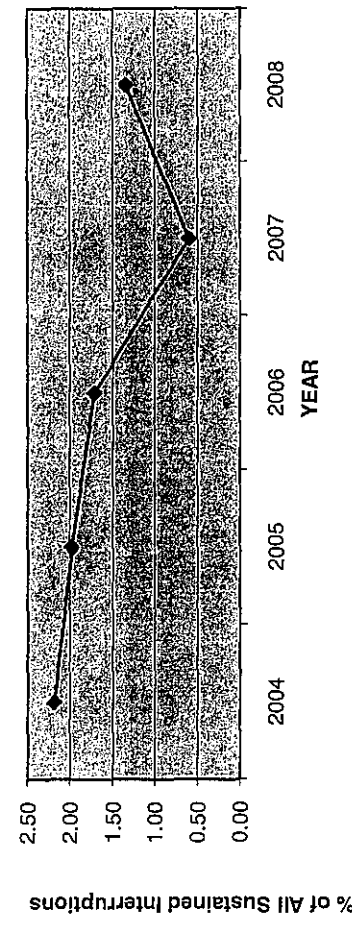


CHARTS for System Interruption Causes

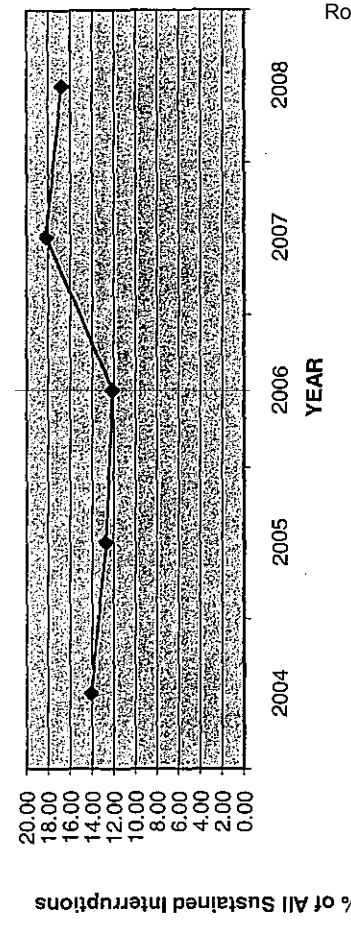
LOSS OF SUPPLY



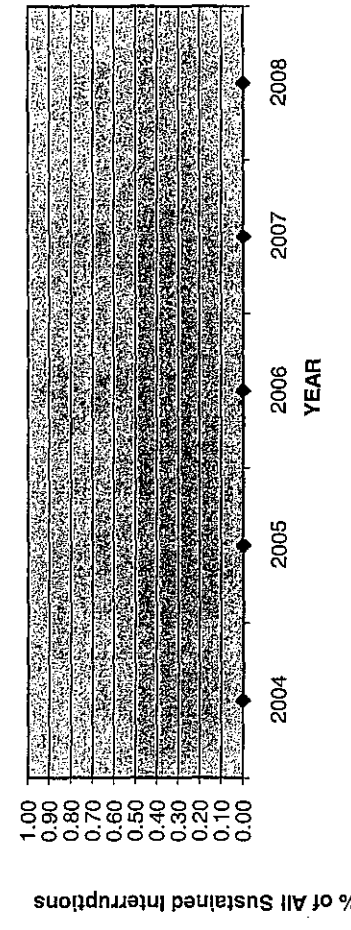
LIGHTNING



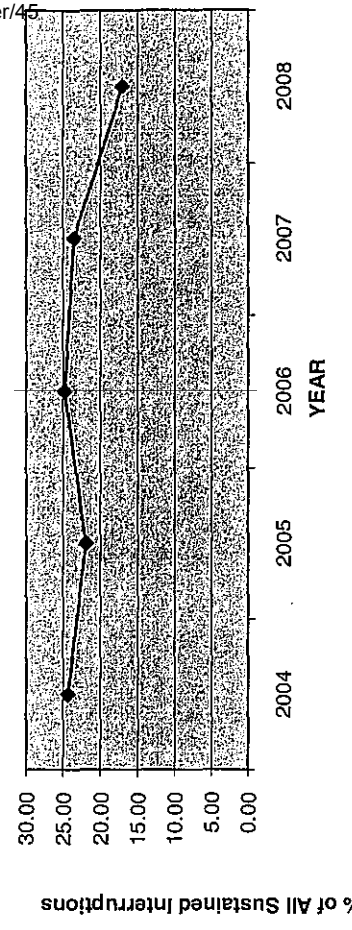
SCHEDULED OUTAGES



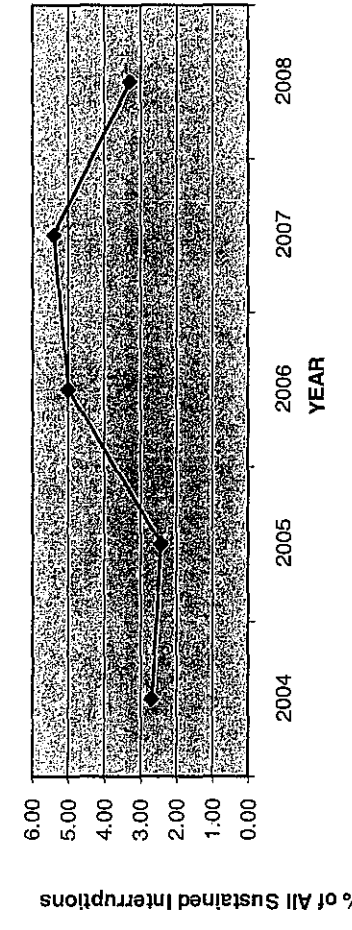
MAJOR EVENTS



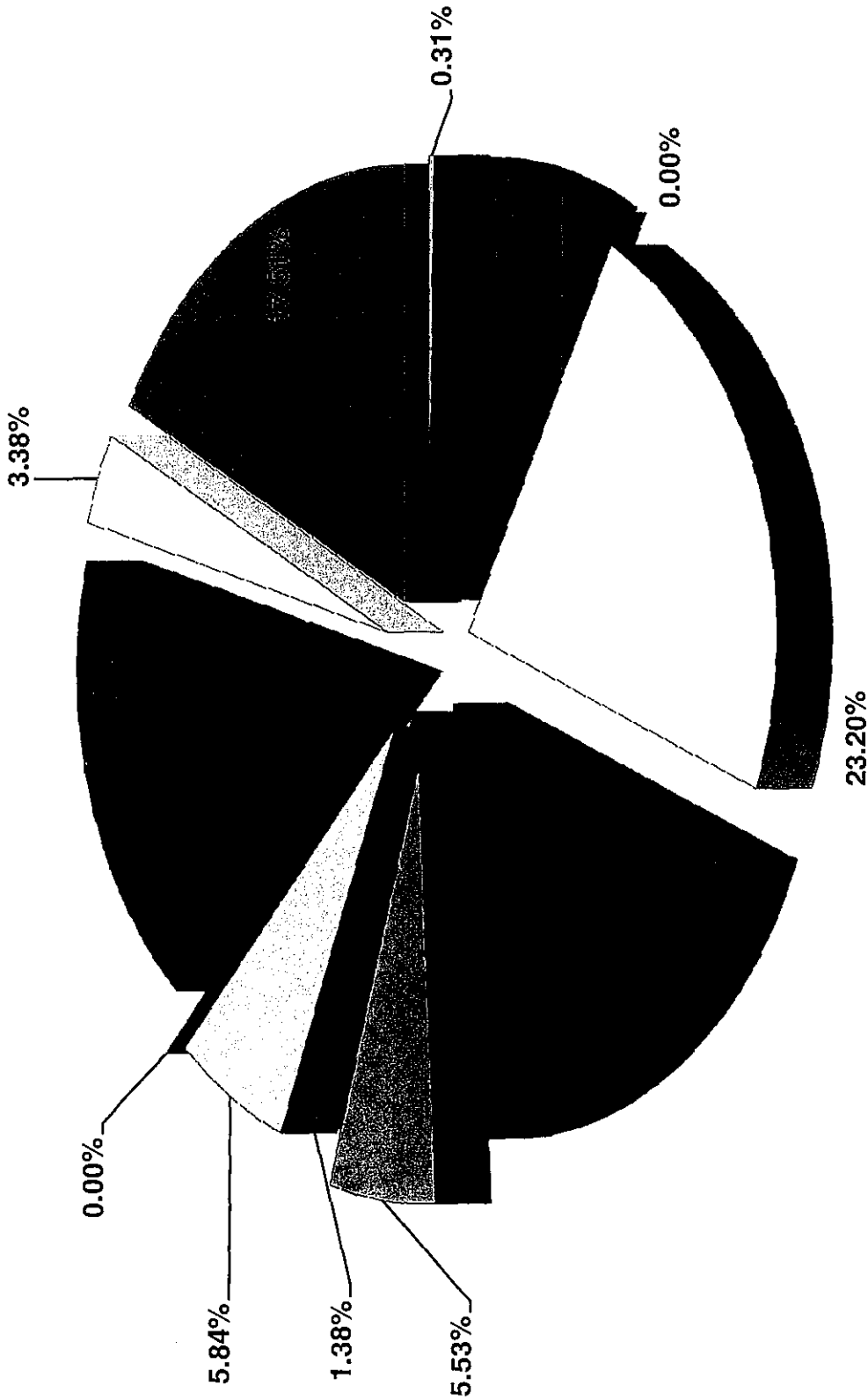
UNKNOWN



TREE CONTACTS



# 2008 Causes for Sustained Interruptions

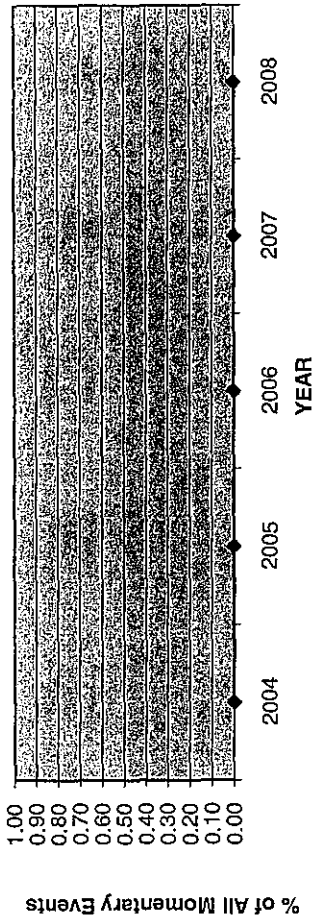


- ADVERSE ENVIRONMENT
- ADVERSE WEATHER
- FOREIGN INTERFERENCE
- HUMAN ELEMENT
- MAJOR EVENTS
- SCHEDULED OUTAGES
- CUSTOMERS EQUIPMENT
- EQUIPMENT FAILURES
- LOSS OF SUPPLY
- UNKNOWN
- LIGHTNING
- TREE CONTACTS

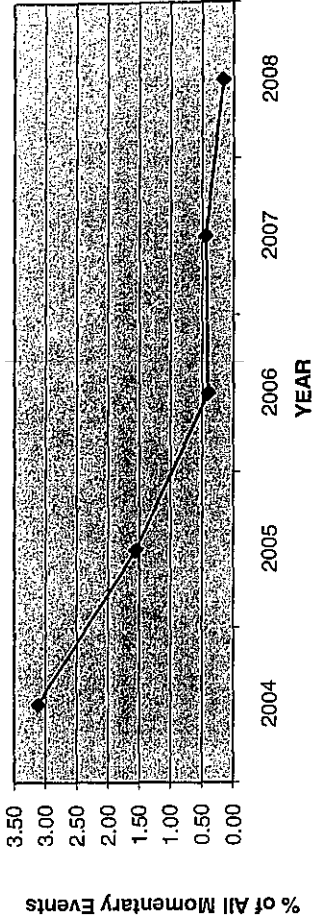
CHART 4



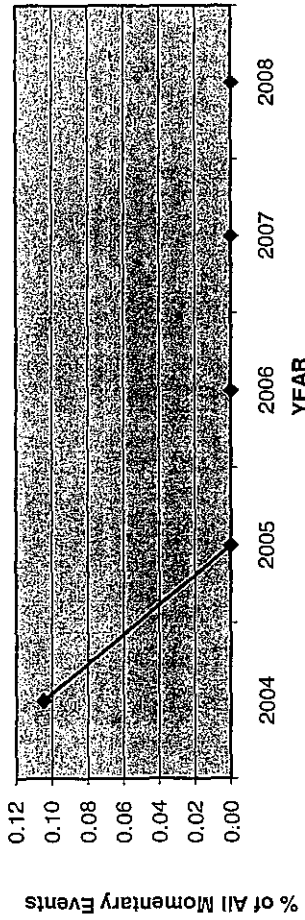
ADVERSE ENVIRONMENT



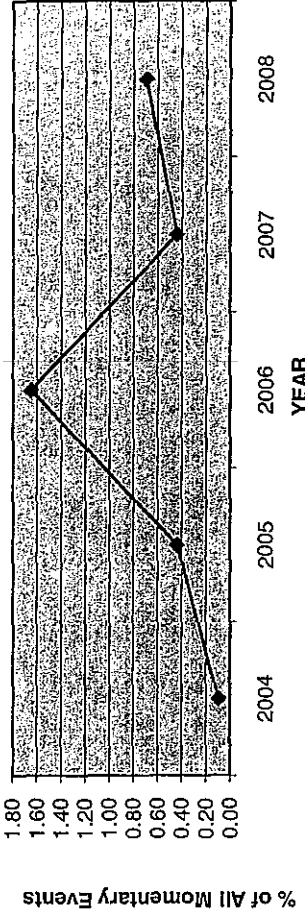
ADVERSE WEATHER



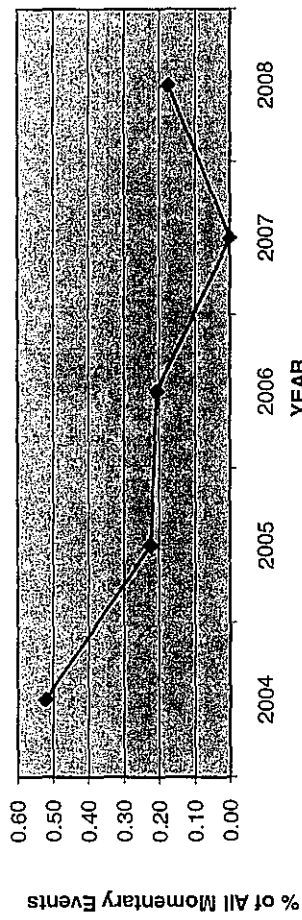
CUSTOMERS EQUIPMENT



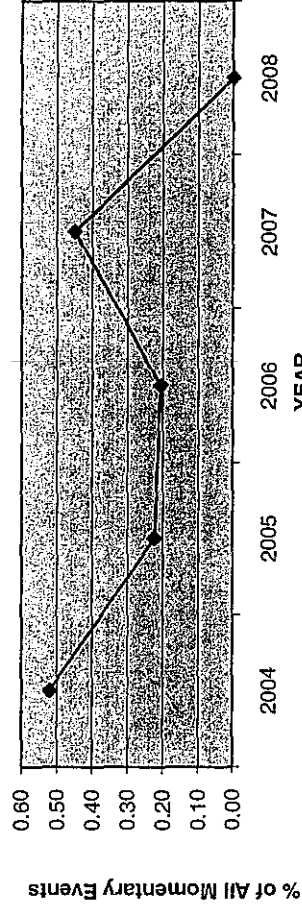
EQUIPMENT FAILURES



FOREIGN INTERFERENCE

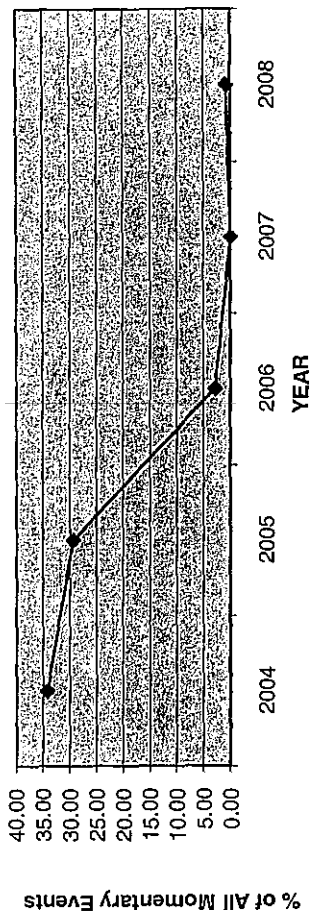


HUMAN ELEMENT

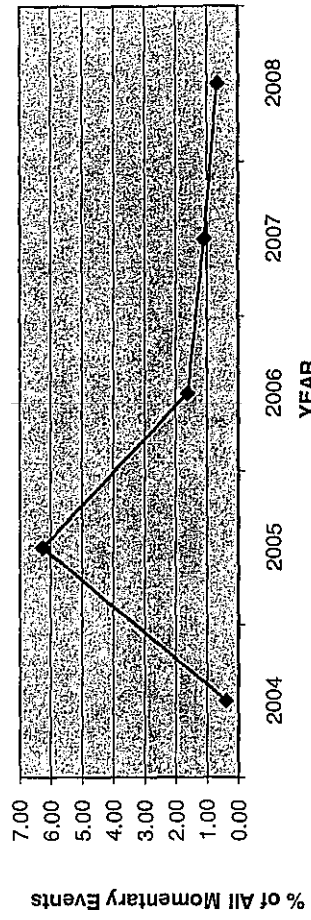


CHARTS for Momentary Event Causes

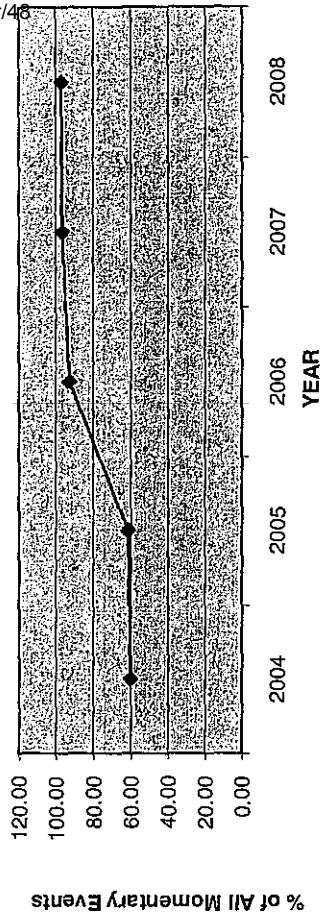
LOSS OF SUPPLY



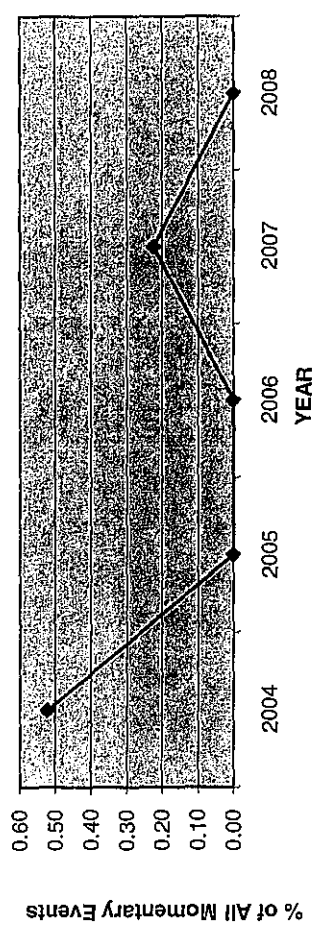
SCHEDULED OUTAGES



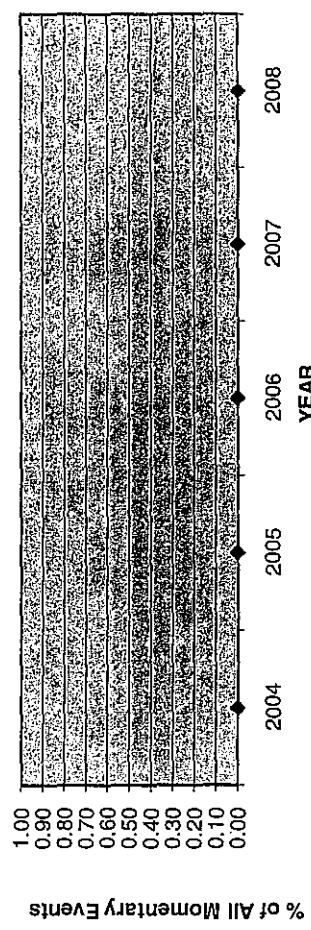
UNKNOWN



LIGHTNING



MAJOR EVENTS



TREE CONTACTS

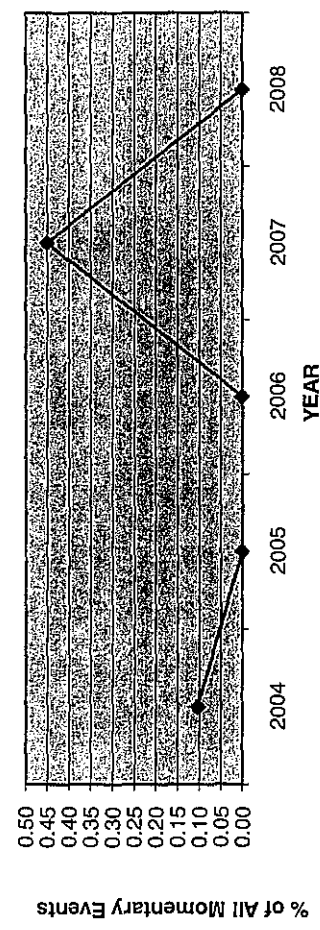
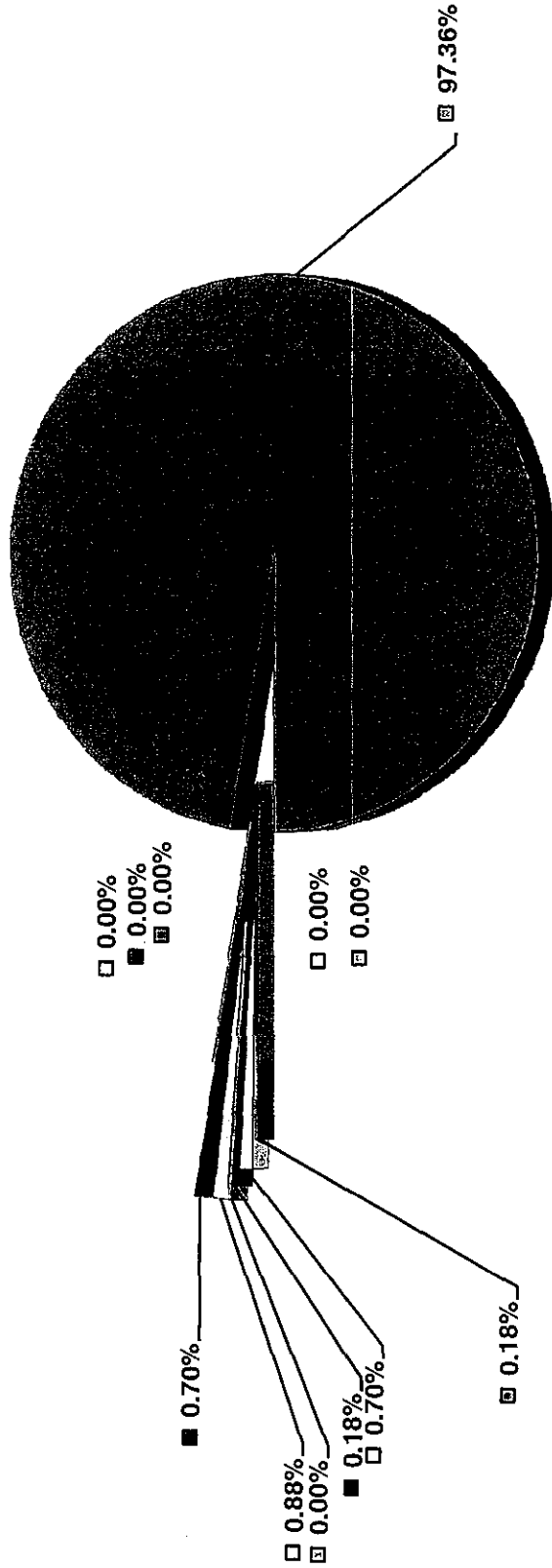


CHART 5

# 2008 Causes for Momentary Events



- ADVERSE ENVIRONMENT
- ADVERSE WEATHER
- CUSTOMERS EQUIPMENT
- EQUIPMENT FAILURES
- FOREIGN INTERFERENCE
- HUMAN ELEMENT
- LIGHTNING
- LOSS OF SUPPLY
- MAJOR EVENTS
- SCHEDULED OUTAGES
- TREE CONTACTS
- UNKNOWN

**TABLE 7**

**SAIDI VALUES**

CIRCUIT	2008	THRESHOLD(90%)
CARO12	4.0197	3.5000
ESTN11	7.9667	10.5660
HOLY11	4.6976	6.3580
HRPR12	18.5789	7.0000
NYSA13	4.1257	4.5640
PRMA42	6.2165	11.6446
RKVL11	43.7508	22.8575

**SAIFI VALUES**

CIRCUIT	2008	THRESHOLD(90%)
HOLY11	3.2784	3.0071
NYSA13	3.9364	2.8916
RKVL11	6.7917	2.0000

**MAIFI<sub>E</sub> VALUES**

CIRCUIT	2008	THRESHOLD(90%)
HMDL12	11.8000	5.0000
HOLY13	6.1590	4.7989
JNVY12	10.0000	9.0000
JNVY31	11.8120	10.0000
MRBT42	7.0000	6.0000
OIDA11	5.1900	5.0000
RKVL11	4.0000	3.0000
WESR14	11.0000	10.0000

**TABLE 8**

<u>OH Line (Pole) Miles</u>		<u>UG Trench Miles</u>		<u>Distribution Line/Trench Miles</u>		
<u>YEAR</u>	<u>Miles</u>	<u>YEAR</u>	<u>Miles</u>	<u>YEAR</u>	<u>Miles</u>	
2008	2,343.87	2008	84.36	2008	2,204.62	
2007	2,298.29	2007	90.28	2007	2,208.01	
2006	2,105.77	2006	85.71	2006	2,191.48	
2005	2,104.27	2005	84.46	2005	2,188.73	
2004	2,111.77	2004	85.47	2004	2,197.24	

<u>Transmission Line (Structure/Pole) Miles</u> <sup>2</sup>		<u>Customer Counts</u>		
<u>YEAR</u>	<u>Miles</u>	<u>YEAR</u>	<u>Count</u>	<u>OH/UG %</u>
2008	667.59	2008	19,487	87/13
2007	662.21	2007	19,543	88/12
2006	661.75	2006	19,406	88/12
2005	661.53	2005	19,239	88/12
2004	661.65	2004	17,900	

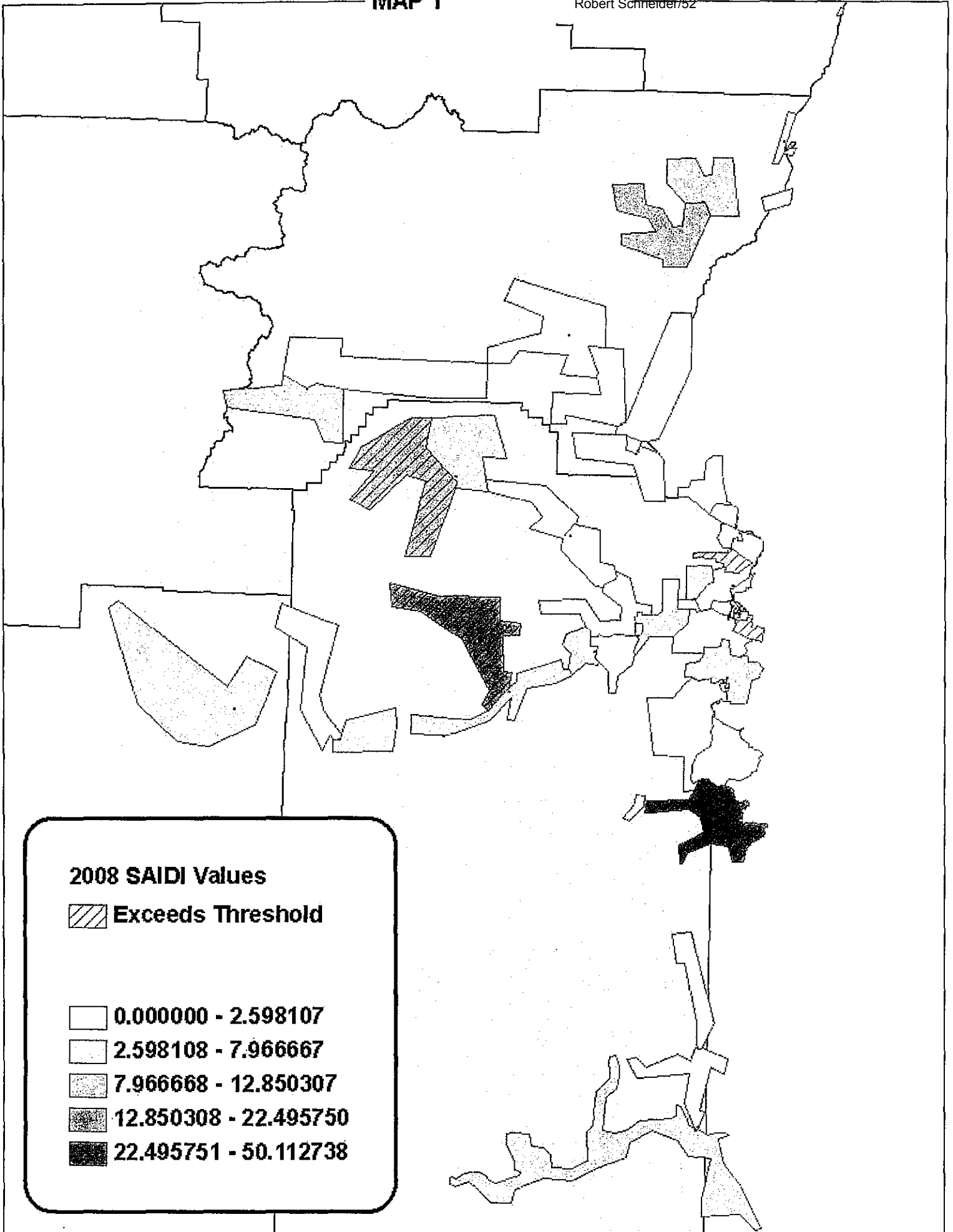
**Notes:**

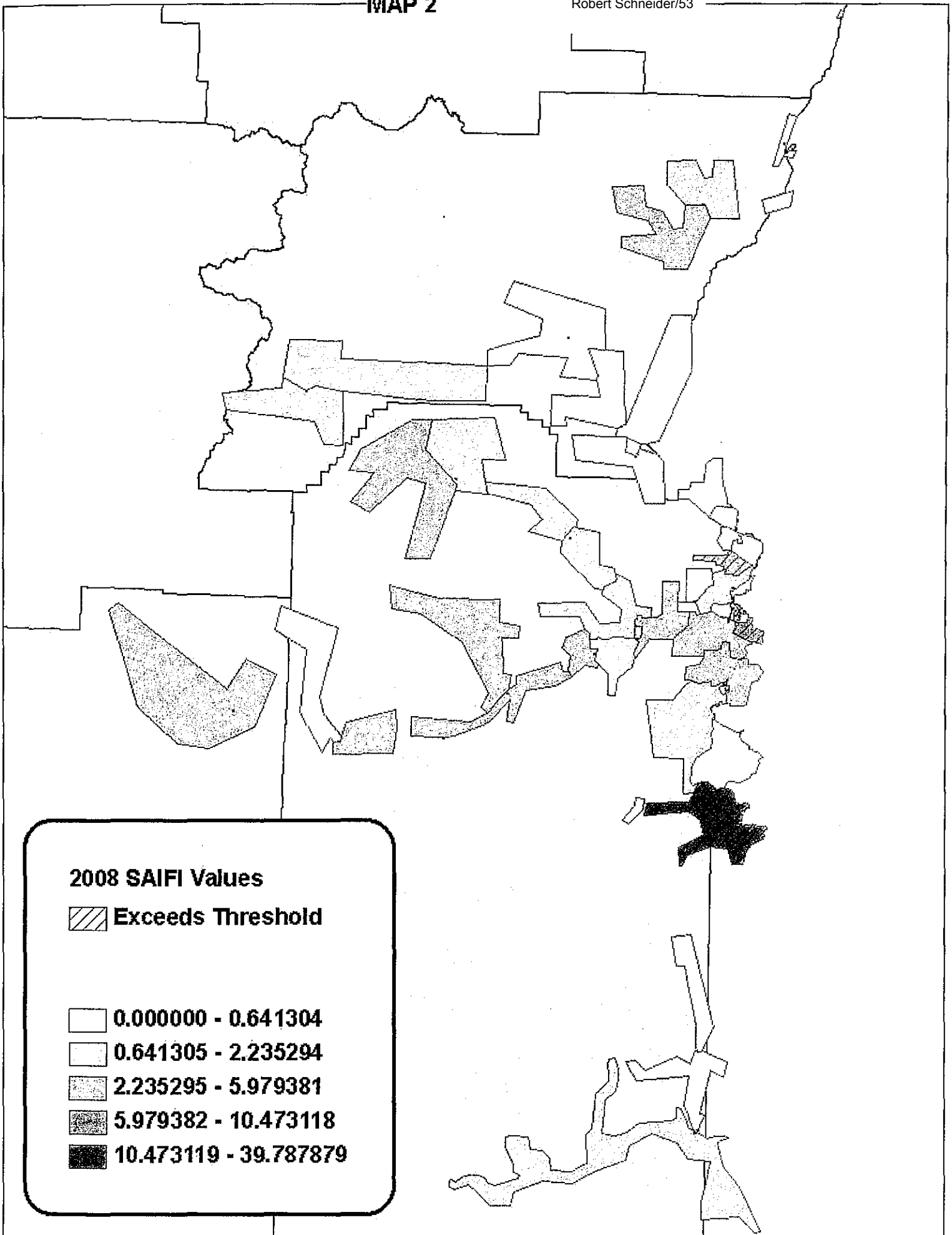
1. Customer count calculation revised in 2005 to reflect actual points of service.
2. Transmission line miles include some lines that do not directly serve customer load



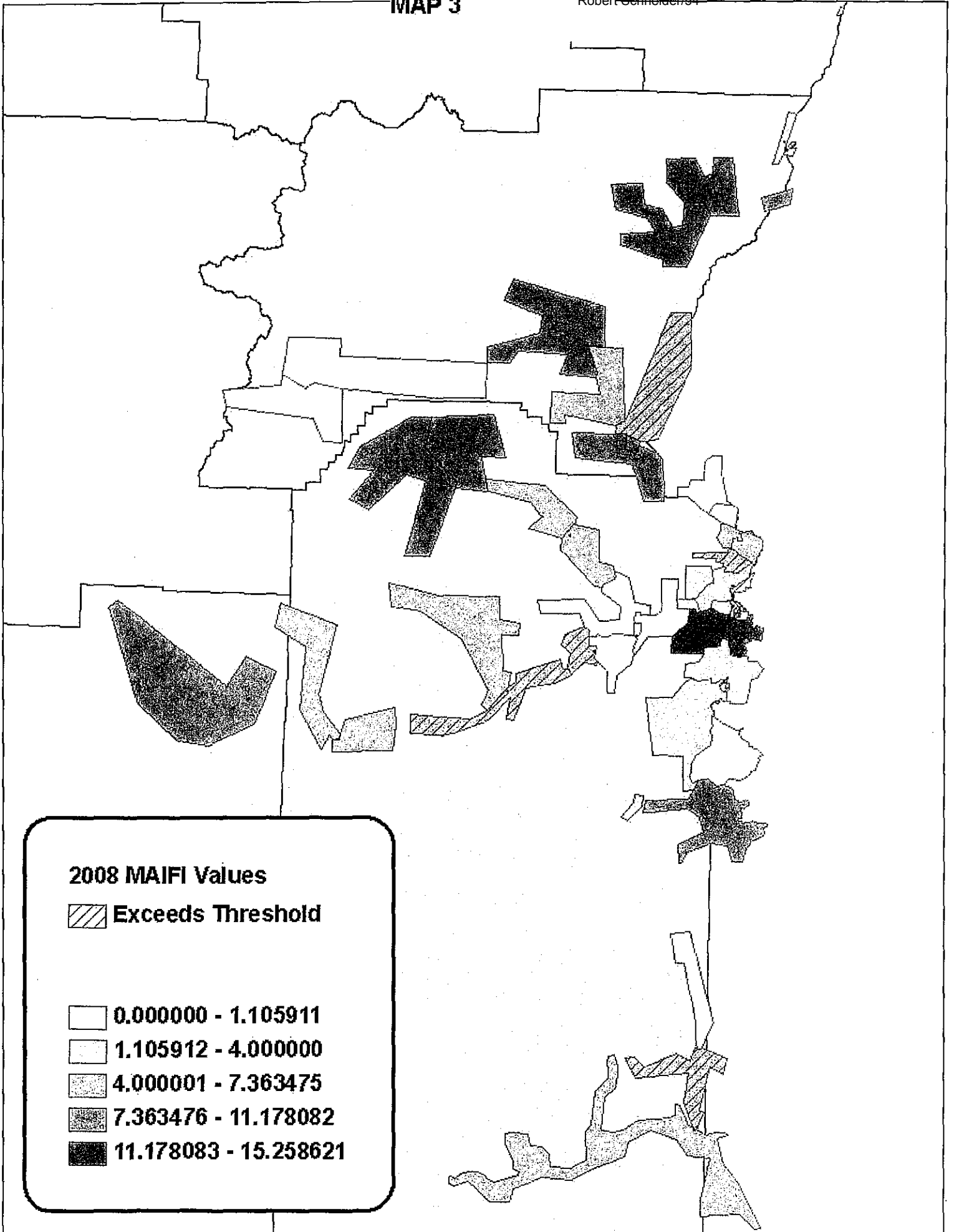
**Attachment - Response OICIP DR 8**  
**MAP 1**

Oregon Industrial Customers of Idaho Power/403  
Robert Schneider/52





MAP 3





October 27, 2009

Subject: Docket No. UE 213  
Idaho Power Company's Responses to the Oregon Industrial Customers of Idaho Power's ("OICIP's") Data Requests 20-26

**OICIP'S DATA REQUEST NO. 20:**

**As a follow up to Idaho Power's Response to OICIP's Data Request No.8, please explain if the 2008 Report provided by Idaho Power is the only document compiled by Idaho Power, or filed by Idaho Power with the OPUC, in the relevant time frame in its efforts to comply with Oregon Administrative Rules Sections 860-023-0020, 860-023-0090, 860-023-0100, 860-023-0110, 860-023-0120, 860-023-0130, 860-023-0140, 860-023-0150, and 860-023-0160. Did Idaho Power file any documents reporting "major events" during this time, as required by O.A.R. § 860-023-0160?**

**IDAHO POWER COMPANY'S RESPONSE TO OICIP'S DATA REQUEST NO. 20:**

In response to section one of the above questions, "explain if the 2008 Report provided by Idaho Power is the only document compiled by Idaho Power, or filed by Idaho Power with the OPUC," the answer is yes. The 2008 Report consists of the reliability findings and is the only report provided to the OPUC addressing such issues.

In response to section two of the above questions as it refers to the reporting of "major events," the answer is no. Idaho Power Company did not experience any "major events" and therefore did not file any documents reporting "major events" during this time.

**OICIP'S DATA REQUEST NO. 21:**

As an additional follow up to the last question, Table 7 of the 2008 Report filed with the OPUC indicates that several circuits are exceeding their "threshold" performance levels for the three major indices of reliability of service. See *also* O.A.R. § 860-023-0090(17) (defining "threshold" as a "performance level that requires appropriate company action"). In light of the results in Table 7, please explain how Idaho Power is complying with the requirements O.A.R. §§ 860-023-0090(17), 860-023-0090(1)-(4).

**IDAHO POWER COMPANY'S RESPONSE TO OICIP'S DATA REQUEST NO. 21:**

Please see the attached documentation.



## ATTACHMENT – RESPONSE OICIP DR 21

Electric Service Continuity Rule - OR 860-23-0090(17) & Rule OR 860-23-0090(4)

**Line Clearing Program:** The Company's established program addresses the problems associated with trees in lines and hazardous trees near our lines in conjunction with the Tree Replacement Program. Line clearing is defined as "The removal of any tree obstruction in or near Idaho Power Company's power lines that may cause an outage or damage to Idaho Power Facilities." The graph below shows the schedule of Line Clearing activity for the Oregon Feeders.

FEEDER	2009 TOTAL WORK		2009 Scheduled Work		2009 Specials	
	# TREES CLEARED	COST	# TREES CLEARED	COST	# TREES CLEARED	COST
CARO012	237	\$ 11,276.00	237	\$ 11,276.00		
ESTN011	-	\$ -	NO TREES			
HMDL012	-	\$ -	SCHEDULED 2010			
HOLY011	-	\$ -	COMPLETED 2008			
HOLY013	-	\$ -	COMPLETED 2008			
HRPR012	-	\$ -	SCHEDULED 2010			
JNVY012	-	\$ -	COMPLETED 2008			
JNVY031	-	\$ -	COMPLETED 2008			
MRBT042	-	\$ -	SCHEDULED 2010			
NYSA013	11	\$ 2,559.15			11	\$ 2,559.15
OIDA011	15	\$ 1,081.60			15	\$ 1,081.60
PRMA042	-	\$ -	SCHEDULED 2010			
RKVL011	-	\$ -	COMPLETED 2008			
WESR014	12	\$ 1,772.30			12	\$ 1,772.30
	<b>248</b>	<b>\$ 16,689.05</b>	<b>237</b>	<b>\$11,276.00</b>	<b>38</b>	<b>\$ 5,413.05</b>

## ATTACHMENT – RESPONSE OICIP DR 21

**Wood Poles:** All Idaho Power wood poles (transmission and distribution) are sounded and bored to detect decay and rot in the poles and are visually inspected for defects. Pole, are internally treated to prevent decay and extend the life of the poles. Poles are tested and treated on a 10-12 year cycle.

**Line Inspection:** The Distribution Line Inspection Process is designed to identify and correct maintenance needs that are not covered by the other programs implemented by the company. This process consists of two parts, a bi-annual Public Safety Inspection and a Detailed Inspection at least once every 10 years.

The graph below shows the schedule of Pole & Line Inspections activity for the Oregon Feeders.

Region	Feeder	Line Mileage (Underground)	Pole Line Miles (Overhead)	2009	2010	2011
Canyon	HMDL 012 oregon	9.45	116.34		Patrol	
Canyon	JNVY 012 oregon	0.25	2.44		Patrol	
Canyon	JNVY 031 oregon	1.49	149.93		Patrol	
Canyon	RKVL 011 oregon		21.82		Patrol	
Western	CARO 012 - Oregon		11.03	Detail Patrol	Patrol	Patrol
Western	HOLY 011 - Oregon	1.7	27.86	PoleTreat	Patrol	Patrol
Western	HOLY 013 - Oregon	0.4	32.73	PoleTreat	Patrol	
Western	HRPR 012 - Oregon	0.14	68.96		PoleTreat	Patrol
Western	MRBT 042 - Oregon	0.34	3.46		Patrol	Patrol/Pole Treat
Western	NYSA 013 - Oregon		175.41		Patrol	
Western	OIDA 011 - Oregon		13.77			Patrol
Western	PRMA 042 - Oregon		32.88			Patrol
Western	WESR 014 - Oregon		5.58		Patrol	Patrol

## ATTACHMENT – RESPONSE OICIP DR 21

**Additionally** the following work has been performed in 2009.

HRPR 012 Inspection revealed and warranted the replacement of a cracked switch that was causing R-80 to trip.

NYSA 013 Inspection revealed a damaged set of doubles that could have caused the feeder to trip, these were replaced.

### **As part of a concentrated Reliability Improvement effort:**

JNVY feeders general: 2009

We are reworking a corner on the GEMM-JNVY 69kv line and we are investigating installing fuses on the Delmar tap in 2010 on the same line if we are able to get customer support. Many of the outages to the JNVY feeders were due to snow unloading on the 69kv line and these projects should rectify that.

Jnvy31: we replaced pins and cross arms, replaced two reclosers and adjusted station settings to improve coordination.

Rkvl11: We replaced a sectionalizer and installed a new sectionalizer to improve coordination and reduce the number of customer outages. In 2010 we are planning on replacing the station recloser with a viper electronic recloser to improve transformer fuse coordination to both avoid outages decrease outage times when feeder faults occur.

Hmdl12: We reduced exposure to the station by opening the line 237 section of the line between HMDL sub and HSTN sub just outside of the HMDL substation. This will eliminate station outages that effect HMDL12.









## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 20<sup>th</sup> day of January, 2010, a true and correct copy of the within and foregoing **CORRECTIVE FILING OF THE OREGON INDUSTRIAL CUSTOMERS OF IDAHO POWER TO THE FILING ON JANUARY 19<sup>TH</sup>, 201** was served in the manner shown to:

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