BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 080677-EI
FLORIDA POWER & LIGHT COMPANY

IN RE: PETITION FOR RATE INCREASE BY FLORIDA POWER & LIGHT COMPANY

TESTIMONY & EXHIBITS OF:

JAMES A. KEENER

DOCUMENT NUMBER-DATE
02350 MAR 18 8
FPSC-COMMISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF JAMES A. KEENER

DOCKET NO. 080677-EI

Q. Please state your name and business address.

A. My name is James A. Keener. My business address is Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, Florida 33408.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power & Light Company ("FPL" or the "Company") as Vice President of Transmission and Substation.

Q. Please describe your duties and responsibilities in that position.

A. I am responsible for FPL's bulk and regional transmission planning, operations, maintenance, engineering and construction activities, including ensuring the reliability and security of the FPL transmission and substation facilities in a safe and effective manner, consistent with the applicable reliability standards.

Q. Please describe your educational background and professional experience.

A. I graduated from the University of Florida in 1976 with a Bachelor of Science degree in Electrical Engineering and from Nova Southeastern University in 1984 with a Masters of Business Administration degree. I am also a graduate of the Program for Management Development at Harvard University.

I began working at FPL in 1976 in the area of Protection and Control at the Manatee Plant. I have both Generation and Power Delivery electric utility experience consisting of engineering, leadership and management positions with NextEra Energy Resources, LLC and FPL. I have held the positions of Plant General Manager of the FPL Martin site and Vice President of Plant Operations and Management for NextEra Energy Resources, LLC. In February 2007, I assumed my present position.

Q. Are you sponsoring any exhibits in this case?

A. Yes. I am sponsoring the following exhibits, which are attached to my direct testimony:

- JAK-1, 2008 SGS Transmission Reliability Benchmarking Study All Voltages 2005-2007 (3 years)
- JAK-2, FPL Transmission Lines Lightning Outages per 100,000 Strikes
- JAK-3, Transmission Line Bird Outages 1998-2008
- JAK-4, Transmission Vegetation Events 1998-2008
- JAK-5, Transformer Ages Year Ending 2008
- JAK-6, Transmission Circuit Miles Years Since Installation

Q. Are you sponsoring or co-sponsoring any Minimum Filing Requirements (MFRs) in this case?

A. Yes. I am co-sponsoring the following MFRs:

- B-13, Construction Work in Progress
- B-15, Property Held for Future Use – 13 Month Average
- C-8, Detail of Changes in Expenses

- C-15, Industry Association Dues
- C-34, Statistical Information
- C-41, O&M Benchmark Variance by Function

In addition, I am co-sponsoring the following 2009 supplemental MFR schedule that FPL has agreed with the Florida Public Service Commission ("FPSC" or the "Commission") Staff and the Office of Public Counsel to file:

- B-13, Construction Work in Progress
- C-15, Industry Association Dues
- C-34, Statistical Information
- C-41, O&M Benchmark Variance by Function

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to: (1) describe the excellent track record of the Transmission and Substation Business Unit (Transmission), based on system performance and reliability, including the programs that help to provide FPL customers a high level of reliable service in a cost-effective manner; (2) address the initiatives that improve the storm resiliency of the transmission system's infrastructure; (3) explain the ongoing need for capital investments required [a] to address the overall challenges to reliability which include the aging infrastructure, and [b] to maintain FPL's high level of reliability; (4) describe how Transmission effectively managed Operations & Maintenance (O&M) expense levels from 2006 to the present, and how it intends to continue this trend through 2011; and (5) discuss FPL's efforts to meet its commitments to customers and to ensure compliance with all applicable regulatory and reliability standards.

Q. Please summarize your testimony.

A. Transmission provides a high level of reliable service through a proactive approach to reliability. During the period of sustained growth since FPL's last general base rate increase, Transmission has provided customers with consistently high levels of reliable service in a cost-effective manner, despite the increasing age of the transmission infrastructure. The requested base rate increase will permit FPL to maintain its current high level of reliability while promoting compliance with all applicable regulatory commitments.

In recent transmission reliability benchmarking based on 2007 data, FPL's composite reliability score was in the top 25% of the participants. FPL also was "Best-In-Class" for the benchmarking metric Average Duration of Sustained Outages. This excellent overall performance is a direct result of the commitment of FPL's management and employees to providing superior reliability and service at a reasonable cost.

Transmission's reliability program is based primarily on condition-based maintenance programs used to evaluate equipment and determine remaining useful life. Combining equipment assessment with a comprehensive risk management approach leads to development of an appropriate, cost-effective plan to extend the life of FPL's transmission and substation assets and to replace those assets only when appropriate. An important part of this process involves the Company's use of both FPL and industry experience to focus on predictive

maintenance and prevention of recurrence of events to reduce the frequency and duration of customer outages.

Notwithstanding these efforts, FPL will require an increased level of transmission and substation capital expenditures to maintain system stability and the high levels of service reliability that customers expect. The required increases are driven by the need for transmission infrastructure improvements, storm hardening efforts, and regulatory commitments. While FPL must continue to refurbish or replace aging facilities, the Company also must invest in transmission system expansion projects and added capacity where technology improvements and equipment upgrades already have maximized the efficiency of the existing infrastructure. Given current capacity limitations and FPL's assessment of its system, the Company has developed a sound plan to replace infrastructure and add new capacity through the projects described later in my testimony. FPL must responsibly move forward with this work to maintain and expand a safe and reliable system for the benefit of its current and future customers.

OVERVIEW OF TRANSMISSION AND SUBSTATION

Q. Please describe the FPL transmission and substation system.

A. As of December 31, 2008, the FPL transmission and substation system was comprised of 6,727 circuit miles of transmission lines, 512 distribution substations and 95 transmission substations. The FPL transmission system is

designed to integrate all of FPL's generation resources in a reliable and cost-effective manner to serve FPL's customers. FPL is required to plan, design and operate its transmission and substation system to meet all applicable reliability standards.

RELIABILITY

Q. How is Transmission reliability performance measured, and how does FPL compare to other electric utilities?

A. To evaluate reliability performance, FPL uses standard industry measures for frequency and duration of outages impacting customers such as System Average Interruption Duration Index (SAIDI). These standard industry measurements provide a comprehensive and useful indication of the level of reliability FPL provides to its customers.

In a recent transmission reliability benchmarking study, FPL's transmission composite availability score, an indicator of bulk power system availability, was in the top 25% among the participants. FPL was also best in class for 2007 and top 10% for 2002 through 2007 for the metric transmission Average Duration of Sustained Outages (also known as industry metric System Average Restoration Index (SARI)). The same benchmarking study also looked at customer impact reliability, and FPL was in the top 10% for transmission SAIDI comparisons to other participants from 2005 through 2007 (Exhibit JAK-1).

FPL's transmission SAIDI for 2008 was significantly higher than in prior years due to the outage that occurred on February 26, 2008. However, notwithstanding this outlier event, when FPL's transmission reliability indicators are viewed over the four year period of time from 2005 through 2008, FPL expects to remain in the top 25% in industry benchmarking studies, underscoring FPL's long history of strong performance and overall achievements in the area of transmission and substation reliability.

Q. Please describe Transmission's reliability programs.

A. Transmission's reliability programs and processes are grounded in the use of diagnostics to assess equipment and facility conditions. The knowledge obtained from these assessments is used to develop a plan for asset maintenance and replacement. Resulting processes and initiatives are executed in a cost-effective manner to maintain grid reliability and reduce the frequency and duration a customer is without electricity due to transmission and substation events. The two main processes are the Condition Assessment Process and Event Response Process. These processes support the main Transmission programs: Facility/System Assessments, Life Extension Maintenance, Prevention through Prediction, Prevention of Reoccurrence, and Vegetation Management.

The Condition Assessment Process has three main components that involve transmission line and substation assessments, remaining useful life determination for assets, and risk management. The second key process, Event Response Process, is designed to determine the root cause for every unplanned outage of

transmission and substation equipment. Each event is recorded, classified and analyzed. The results of each outage cause analysis are then used in the Condition Assessment Process and incorporated into the design and engineering of future facilities. This approach supports prevention of recurrence and mitigation of future events, together with a resulting reduction in the frequency and duration of customer outages. These two processes support Transmission's reliability programs.

Q. Please provide some examples of Transmission's reliability programs and explain how these programs benefit FPL's customers.

A. The following are some examples of Transmission's reliability programs:

Facility/System Assessments – Transmission line and substation assessments are conducted using equipment diagnostics and both on-site and remote system surveillance. The assessments include oil sampling and testing, equipment and protective system testing, thermal imaging of components, climbing inspections and station assessments, all of which provide information used to prevent or predict equipment or facility failures. Part of system surveillance is accomplished through equipment performance monitoring and diagnostics, consistent with Smart Grid initiatives, using remote monitoring tools and analysis programs which are deployed in the Transmission and Performance Diagnostic Center (TPDC).

Life Extension Maintenance – Information obtained during condition assessment is evaluated using predictive models to determine Remaining Useful Life. A plan is then developed to replace or conduct life extension maintenance on major equipment and facilities. Life extension maintenance for equipment and facilities extends the remaining useful life of the equipment while minimizing cost and significantly deferring the need for substantial investment in new equipment and capital projects.

Prevention through Prediction – By combining Remaining Useful Life determination with risk assessment of the transmission system, a plan is developed to replace major equipment and facilities in a predictive manner. Predictive replacements minimize customer impact and cost while maximizing asset utilization. When predictive replacements are made, customers benefit from FPL's use of technological advances and design improvements. These improvements reduce the likelihood of interruptions and mitigate the effects on customers when interruptions do occur.

Prevention of Recurrence – Through the use of the Event Response Process described above, Transmission develops countermeasures to prevent the recurrence of similar events that could cause outages. An example of such a countermeasure is FPL's effort to prevent outages initiated by lightning strikes. FPL's service territory is one of the highest lightning density (strikes/square-mile/year) areas in the United States, and lightning has historically been a cause

of outages. Using information gained through experience and analyses, a variety of innovative countermeasures to reduce lightning outages have been developed, including new design standards, grounding improvements and installation of lightning arrestors. The use of these countermeasures minimizes the recurrence of lightning related outages. As depicted on Exhibit JAK-2, the number of lightning outages per 100,000 strikes in FPL's service territory has been reduced by over 50% since the development and implementation of the countermeasures over the past 11 years.

Additional countermeasures developed through the use of the Event Response Process mitigate bird-caused outages. FPL has instituted several environmentally friendly initiatives consisting of design modifications to structures to make them less prone to bird-related events. The creation of customized bird perch discouragers specific to types of birds in a particular area, and installation of bird perch discouragers, attempts to guide birds to roost on less vulnerable areas of a structure. Transmission and substation equipment outages as a result of bird-related events present a significant challenge. As shown in Exhibit JAK-3, the implementation of these initiatives has contributed to a 47% reduction of outages related to birds in the last 11 years.

Vegetation Management – FPL has improved system reliability by reducing the number of transmission outages related to vegetation events by over 88% over the last 11 years (Exhibit JAK-4). The growth of vegetation into overhead power

lines presents a major challenge to electric utilities. This is particularly true in Florida with the year-round growing season. Transmission's vegetation management program involves trimming and right-of-way clearance and has two main focuses: System Stability and Customer Impact Reliability. From the perspective of System Stability, this work focuses on preserving right-of-way requirements for higher voltage transmission lines (500 kV and 230 kV) that can affect the entire system. FPL's program for Customer Impact Reliability is equally focused on transmission lines which do not fall under the bulk power line definitions for high-voltage lines that impact system stability. FPL's program includes condition assessments of the remaining lower voltage transmission lines in order to determine appropriate maintenance trimming requirements.

As a result of the Northeast Blackout of 2003, mandatory reliability standards related to vegetation management went into effect in 2007. These standards require a more robust vegetation management process completed by qualified personnel. In order to help meet this requirement, Transmission requires its utility arborists to be certified by the International Society of Arboriculture. While Transmission has always had a program in place for vegetation management, there is now a regulatory obligation to document vegetation inspections.

FPL attributes the success of its vegetation management program to the increased frequency of patrol and inspection work followed by remediation of risks found as a result of the inspections. The current draft of the Transmission Owners and

Operators Forum Best Management Practices, a well recognized forum established to develop best practices as they relate to the reliability of the transmission grid, recommends a minimum of one inspection per year. FPL complies with this practice and also schedules additional inspections in critical areas. Additionally, following events such as seasonal storms, tornados, and tree outages, FPL performs targeted inspections in the affected areas. The increased inspections enable FPL to identify areas of risk and allow the Company to redirect resources from areas that have not grown as expected and present minimal risk, thereby increasing efficiency and maximizing resources.

In summary, FPL's reliability initiatives significantly contribute to the prevention and minimization of outages and customer inconvenience, while at the same time extending the life of equipment and infrastructure in an appropriate and cost-effective manner.

Q. How has FPL used technology to improve the monitoring and control of its transmission system?

A. FPL is implementing the following initiatives to improve the overall reliability of the transmission system:

Evolution of the FPL System Control Center – The FPL System Control Center (SCC) has developed over the past 30 years to become a state-of-the-art operational structure that plays a key role in the efficient operation of FPL's transmission and substation systems. The high quality and availability of tools and

information on the status of FPL's system is a hallmark of FPL's SCC. Information access and coordination among FPL and the other members of the Florida Reliability Coordinating Council (FRCC) to improve system management demonstrates FPL's continuous commitment to the reliable operation of the electric system.

The operation of the transmission system, including the SCC, is committed to full compliance with all applicable standards.. The North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) standards provide a cyber security framework for the identification and protection of critical cyber assets to support the reliable operation of the bulk electric system. The CIP standards include controlling and monitoring both physical and electronic access to the cyber equipment. The standards also require processes and procedures for securing the cyber equipment and training programs to instruct operations employees on expectations. Controlling electronic access requires new equipment to limit and monitor access. Transmission has implemented state-of-the-art cyber security measures which have received high marks from government agencies and the electric utility industry. Currently, Transmission is working to fully comply with the NERC CIP standard prior to scheduled milestone date requirements.

Transmission Performance and Diagnostic Center (TPDC) – Another example of a major transmission reliability initiative is the creation of the TPDC. The TPDC is a nerve center for monitoring of critical operating parameters of

transmission equipment and performing subsequent analysis. Current and near-future assessment methods provide early prediction of asset failures by using state-of-the-art monitoring and real-time statistical analysis of equipment performance to identify abnormal conditions. The TPDC also acts as a transmission and substation command center to respond with analysis of system events through:

- Multiple party teleconferencing to facilitate internal communications;
- Communication to substation equipment to download records;
- Real-time views and alarms available from the SCC;
- Historical and real-time equipment monitoring views;
- Substation security views;
- Geographic view of system overlay with weather, fire, customer trouble, and real time outage data; and
- Performance modeling on major equipment, with real-time alarms for equipment excursions.

The TPDC enhances FPL's predictive capabilities by providing remote analysis of transmission and substation asset performance. The actual performance of equipment is compared to various equipment technical operating parameters to determine the present condition of installed equipment. Deviations from the technical operating parameters of the equipment can then be further assessed and investigated to minimize impacts on the system.

Q. What other factors have contributed to Transmission's operational excellence?

A. Another factor that contributes to FPL's operational excellence is the planning that takes place years ahead of the operation of the transmission and substation system. FPL plans the transmission and substation system (consistent with applicable reliability standards) to integrate current and future planned generation resources with FPL's forecasted load. FPL carries out this process in a manner that meets these objectives in a cost-effective manner, while at the same time taking into account potential impacts on the environment and the communities in which these facilities are located.

Over the years, FPL has successfully met planning and operational challenges, and has in place an organization and management team with the experience and expertise to successfully meet these challenges in the future.

INFRASTRUCTURE IMPROVEMENTS – STORM RESILIENCY

Q. Did Transmission make any changes regarding the strength and resiliency of its infrastructure as a result of the 2004 and 2005 storm seasons?

A. Yes. The seven hurricanes (five direct landfalls and two indirect impacts) that affected FPL's service territory during 2004 and 2005 resulted in significant customer outages and required extraordinary efforts to rebuild and restore the system. During that time frame, forecasters also were predicting decades of

heightened tropical storm activities. Transmission therefore performed an engineering evaluation to identify opportunities for hardening the system and concluded that the strategic replacement of single-pole unguyed wood structures and replacement of ceramic post insulators on single-pole concrete structures would help meet this objective.

Q. What actions did Transmission take to effect these changes?

A. In 2006, Transmission filed and implemented a plan to strengthen its transmission infrastructure in accordance with the Florida Public Service Commission (FPSC) 10 Point Storm Preparedness Initiatives. FPL's initiatives included the replacement of existing single-pole unguyed wood transmission structures with concrete structures, and existing ceramic post insulators on concrete transmission poles.

Q. Please describe FPL's progress on the storm hardening program involving the replacement of the types of poles and insulators addressed above.

A. In January 2006, FPL's transmission system included 4,786 single pole un-guyed wood structures and 5,562 concrete transmission structures with ceramic post insulators. FPL has replaced 1,133 single-pole unguyed wood structures and 1,681 ceramic post insulators on concrete structures at a cost of $12.8 million.

Q. Has FPL expanded its plans for continuing to harden the transmission infrastructure?

A. Yes. Beginning in 2008, FPL enhanced its wood pole hardening initiative which previously targeted only single-pole unguyed wood structures. FPL's enhanced initiative will replace all wood transmission structures with concrete structures

over a 25 to 30-year period. FPL also continued the initiative focused on upgrading ceramic post insulators on square concrete transmission poles. There will be additional replacements of wood structures as part of system expansion, relocations, and pro-active transmission line maintenance rebuilds.

FPL also is replacing insulators to reduce their susceptibility to failure due to windblown salt and other contaminants. This improves storm resiliency and reliability of transmission substation by replacing existing insulators with insulators which have a much better contamination performance at critical 500 kV and 230 kV substations.

Q. How does the storm hardening program benefit customers?

A. Strengthening FPL's transmission infrastructure through the storm hardening initiatives will allow the Company to reduce the number and duration of service interruptions to customers during storm and other weather events and improve transmission reliability in a cost-effective manner.

TRANSMISSION O&M EXPENSE

Q. What are some of the major components associated with Transmission O&M Expense actual and projected costs?

A. In order to maintain FPL's high level of reliable service while at the same time addressing aging infrastructure, Transmission engages in a number of initiatives

which impact Transmission O&M. These initiatives generally fall into the following categories:

1. Enhanced transmission and substation maintenance and condition assessment activities in order to assure reliability;
2. Analysis and implementation of studies that address multiple levels of contingencies in order to increase reliability and in all pockets of load;
3. Response to events and restoration of equipment; and
4. Regulatory commitments including compliance oversight and computer enhancements, vegetation management programs, training certification and re-certification programs, and storm hardening and pole inspection programs.

As transmission and substation aging infrastructure reaches end of life, the maintenance costs increase. In order to maximize the life of major transmission and substation equipment, proper and timely maintenance is required. Transmission's condition assessment program uses detailed risk assessments and life-cycle projections, using predictive techniques to prioritize maintenance activities and equipment repair on an appropriate schedule to extend the life of the equipment. Without this program, FPL's costs would be greater because equipment replacement costs are higher than life extension costs. Additionally, as FPL's TPDC programs become more sophisticated, FPL's proactive intervention should result in reduced outages, consequently reducing restoration costs.

Q. How do FPL's projected O&M expenses for 2010 for the transmission functional area compare to the actual O&M expenses incurred in 2006?

A. FPL's transmission function O&M expenses in 2006 were $41.4 million while the 2010 projected O&M expenses are $60.3 million. Drivers of the $18.9 million increase from 2006 to 2010 include initiatives associated with continuing compliance with NERC reliability standards such as development and implementation of programs, standard modules, external audits, self-assessments, training, certification and re-certification programs, and reliability studies. Telecommunications and software license cost increases and increased staffing required by NERC for the SCC, vegetation management mandated by NERC standard FAC 003-1, compliance oversight of NERC reliability standards, and pole inspection program and storm hardening required by the FPSC all contribute to this variance. FPL also projects increased expenditures related to additional condition assessment and life extension activities that support a high level of reliability and maximize the life of major equipment, thereby deferring the need for substantial investment in capital projects.

Q. How do FPL's projected 2010 O&M expenses for the Transmission functional area compare to the Commission O&M benchmark for 2010?

A. The Commission O&M benchmark for the Transmission functional area would be $43.8 million. The projected 2010 expenses total $60.3 million. A number of key drivers of the $16.5 million difference between the Commission benchmark and FPL's 2010 projections are discussed below.

Initiatives associated with continuing compliance with NERC reliability standards and FPL's reliability enhancement program contribute to the increase in projected expenditures for 2010. This includes development and implementation of programs, standard modules, external audits, self-assessments, training, certification and re-certification programs, and reliability studies. Telecommunications/software license and increased staffing required by NERC for the SCC represent additional regulatory commitments that require increased expenditures. Additional condition assessment and life extension activities which maximize the life of major equipment and defer the need for substantial investment in capital projects also account for projected increases for 2010.

Vegetation management expenditures, primarily required to comply with NERC standard FAC 003-1, represent another area of increase over the Commission benchmark. FPSC 10 Point Storm Preparedness Initiatives which are focused on the pole inspection program and storm hardening required by the FPSC are additional significant drivers of the increase.

Q. How do FPL's projected 2011 O&M expenses for the Transmission functional area compare to the Commission O&M benchmark for 2011?

A. The Commission's benchmark for the Transmission functional area would be $45.3. FPL's 2011 projected O&M expenses total $54.6 million. The primary drivers of the $9.3 million difference between the Commission benchmark and the FPL request for 2011 are briefly addressed below.

Regulatory commitments again represent a key driver for the 2011 projected expenditures. These include telecommunication/software license and increased staffing required by NERC for SCC, training, certification and re-certification programs that support continuing compliance with reliability standards, vegetation management expenditures required to comply with NERC standard FAC 003-1, and the pole inspection program and storm hardening required by the FPSC. Additional condition assessment and life extension activities on aging infrastructure and TPDC initiatives to perform real time statistical analysis of equipment performance also contribute to the increase in O&M expenditures required in 2011.

TRANSMISSION CAPITAL EXPENDITURES

Q. How do FPL projected transmission infrastructure capital expenditures for 2010 compare to the actual capital expenditures incurred in 2006?

A. FPL's transmission infrastructure capital expenses in 2006 were $294.3 million while the 2010 projected capital expenses are $302.9 million.

Q. What FPL transmission infrastructure capital expenditures are projected for 2011?

A. FPL's projected transmission infrastructure 2011 capital expenses are $320.6 million.

Q. Please describe the cumulative FPL transmission infrastructure capital expenditures for 2006 through 2010 and 2006 through 2011.

A. FPL's actual and projected cumulative transmission infrastructure capital expenditures are $1.6 billion for 2006 through 2010 and, $1.9 billion for 2006 through 2011.

Q. What are the major cost drivers for Transmission's Capital Expenditures?

A. The major cost drivers associated with Transmission's Capital Expenditures are:

(1) Storm Hardening;

(2) Aging Infrastructure replacement and refurbishment;

(3) 500 kV reinsulation; and

(4) Expansion projects to meet forecasted load.

Storm Hardening: The replacement of transmission unguyed wood poles and ceramic post insulators on concrete poles accounts for projected capital expenditures of $11.5 million, $14.6 million and $14.8 million for the years 2009, 2010 and 2011, respectively. Capital expenditures of $4.2 million in 2010 and $3.5 million in 2011 are projected for substation insulator replacement to reduce failures due to windblown salt and other contaminants.

Aging Substation Infrastructure Replacement: As the aging fleet of substation equipment such as transformers, breakers, capacitor banks and other associated equipment approach the end of their useful life, FPL optimizes the replacement process with respect to interruption avoidance, resource allocation, and asset utilization. The graphical representation in Exhibits JAK-5 provides data regarding the age of FPL's fleet of transformers.

Typically, failures associated with transformers occur either initially (i.e., first two years of life) or after approximately 30 years of useful life. FPL currently has 355 transformers, approximately 25 percent of the transformer fleet, that are near the end of their useful lives and will need to be replaced. The condition assessment process for FPL's fleet of transformers determines optimal replacement timing.

Replacement and refurbishment of aging substation equipment will minimize service interruptions to customers. Capital expenditures for the replacement of aging substation equipment for the period from 2009 through 2011 are projected to be $221.9 million.

Aging Transmission Infrastructure Refurbishment: The aging transmission infrastructure (Exhibit JAK-6) requires refurbishment to keep the facilities serviceable and maintain a consistently high level of reliability. Inspections of transmission facilities through reliability programs or following an outage event have identified follow-up refurbishment work. These refurbishments involve all types of components associated with the transmission system such as cross arms, insulators, overhead ground wires, poles and splices. For the 2009 through 2011 period, capital expenditures will total approximately $68.6 million on this refurbishment and replacement work.

500 kV Line Re-insulation: FPL will continue its reliability initiative to replace insulators on 500 kV transmission lines. Projected expenditures of $5.7 million, $3.4 million and $3.4 million are planned for the years 2009, 2010 and 2011 respectively. FPL requires a reliable 500 kV system for bulk transmission power flow within its service area and to meet regulatory commitments and maintain transmission grid stability. These replacements are part of FPL's ongoing 500 kV reliability plan which is based on the previously described Condition Assessment process. FPL learned from this process, and from Remaining Useful Life determinations, that the expected useful life of these insulators is 35 years. Many insulators on FPL's 1,100 circuit miles of 500 kV transmission are either approaching or at the end of useful life, since the majority of the 500 kV facilities were constructed in the late 1970s or early 1980s. The size of the remaining at-risk population of 500kV insulators necessitates a phased-in replacement program based on condition assessment prioritizations. Failure of these insulators could be critical to the reliability of the system; therefore, preemptive replacements are required.

Q. Has FPL planned any new transmission expansion projects to meet forecasted growth (future and past) which require significant capital expenditures?

A. Yes. FPL has developed a plan to replace facilities and add new capacity through system expansion injection projects. The following are examples of projects requiring significant capital expenditures for system expansion that will increase transmission system capability:

Norris-Volusia Area 230 kV Injection: FPL has experienced significant load growth in the north area since the bulk of the transmission system in this region was constructed 30 to 40 years ago. While load growth has slowed recently, over the next decade load is expected to increase substantially in this area. The increased load over the past 30 to 40 years, coupled with forecasted future demands, will cause the capacity of the transmission network serving the area to be exceeded under certain single contingency conditions affecting more than 22,000 customers. The total cost of this project is estimated at $52.0 million and it is scheduled to be completed by the end of 2011.

Princeton 230 kV Injection: FPL has experienced rapid growth in the South Miami-Dade area. The increased load, coupled with forecasted future demands, will cause the capacity of the transmission network serving the area to be exceeded under certain single contingency conditions affecting more than 21,000 customers. This project will increase the transmission capability in the South Miami-Dade area. The total cost of this project is estimated at $45.7 million and it is scheduled to be completed by the summer of 2011.

Bobwhite Manatee 230 kV Line: FPL has experienced significant growth in the west area. The increased load, coupled with forecasted future demands, will cause the capacity of the transmission network serving the area to be exceeded under certain single contingency conditions affecting more than 15,000

customers. This project also provides transmission corridor diversity supporting reliability in the entire west area. The total cost of this project is estimated at $37.3 million. While this project was originally scheduled to be completed by the end of 2011, FPL's recent load forecast has deferred the need for the project to 2012.

Bunnell - West Palm Coast – St. Johns 230 kV Injection: FPL has experienced significant growth in the St. Johns area requiring transmission service to new distribution stations. The increased load, coupled with forecasted future demands, will cause the capacity of the transmission system serving the area to be exceeded under certain single contingency conditions affecting more than 9,000 customers. This project also provides an additional injection into the area improving system reliability. The total cost of this project is estimated at $21.3 million and it is scheduled to be completed by the end of 2011.

Q. Has FPL planned any new distribution substation expansion projects which require capital expenditures and which are necessary to meet forecasted growth?

A. Yes. As part of its annual capacity planning process, FPL examines existing and projected loading conditions and evaluates the need for additional distribution substations, expansion and/or modification of existing distribution substations, and the need for additional feeders to ensure that increased capacity requirements are met and reliable electric service is maintained. During the period 2006 through 2008, FPL added 31 new distribution substations, increased capacity

and/or modified 60 distribution substations, and added 97 new feeders, all at a total cost of $161.7 million. As a result of its most recently completed planning process, FPL's plans for 2009 through 2011 require adding 16 new distribution substations, increasing capacity and/or modifying 32 existing distribution substations, and adding 97 new feeders, all at a total cost of $133.5 million.

Q. Has Transmission adopted enhanced cost control measures as a result of the economic downturn?

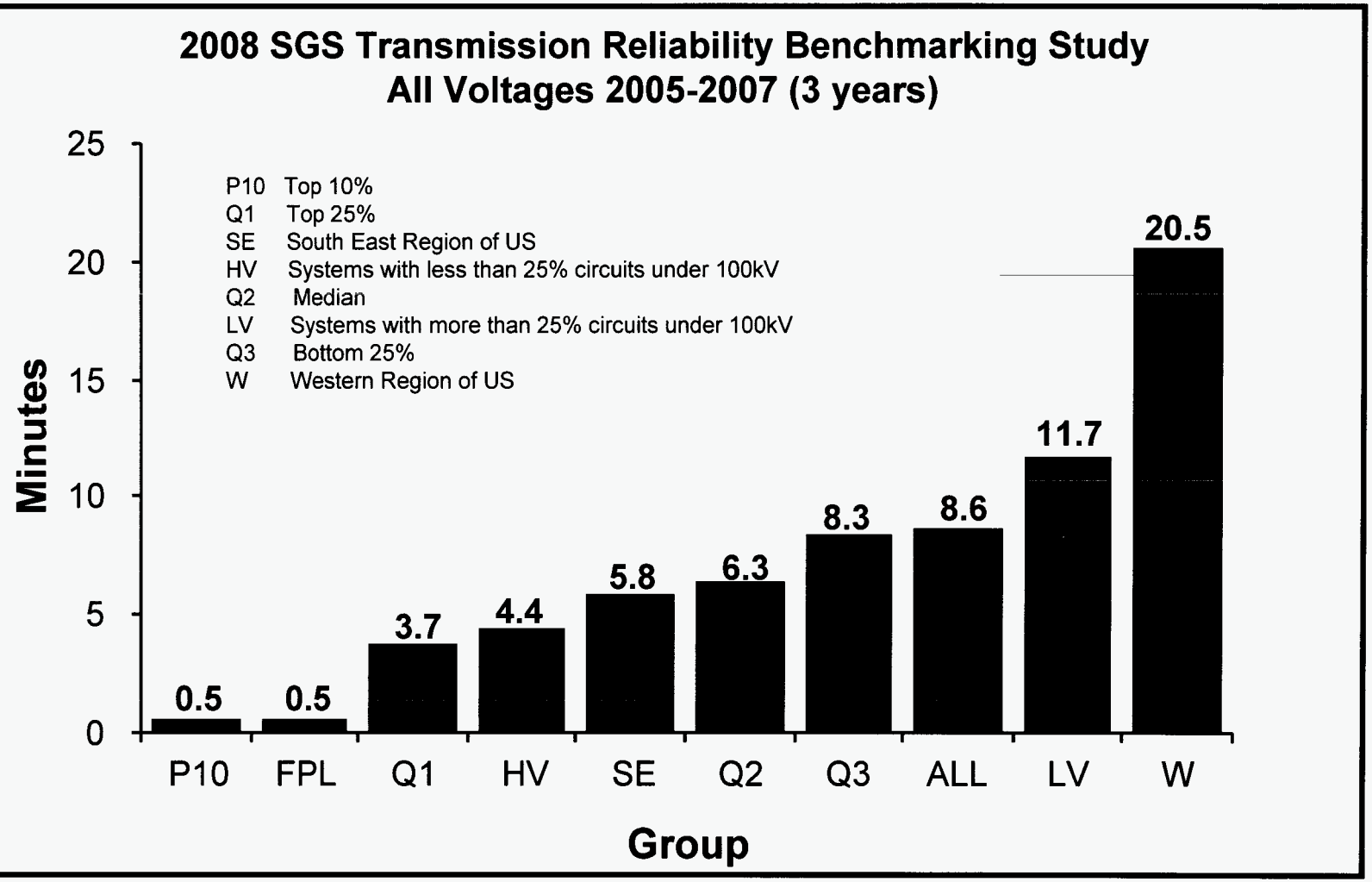
A. Yes. FPL has evaluated expansion project need dates based on updated load forecasts, resulting in a postponement of many expansion projects. FPL also revisited the in-service dates for third-party expansion projects and transmission line/pole relocation projects with transmission customers, agencies and other outside parties. As a result, certain projects were postponed based on this updated information.

The replacement of lower risk major equipment was delayed, requiring increased monitoring of the existing equipment. The implementation of these cost control measures requires FPL to remain cognizant of the fact that these expansion projects and major equipment replacements are typically multi-year in duration and have long lead times. Long-range planning must be considered for incremental load growth in certain areas of FPL territory where capacity has been reached.

Q. Does this conclude your direct testimony?

A. Yes.

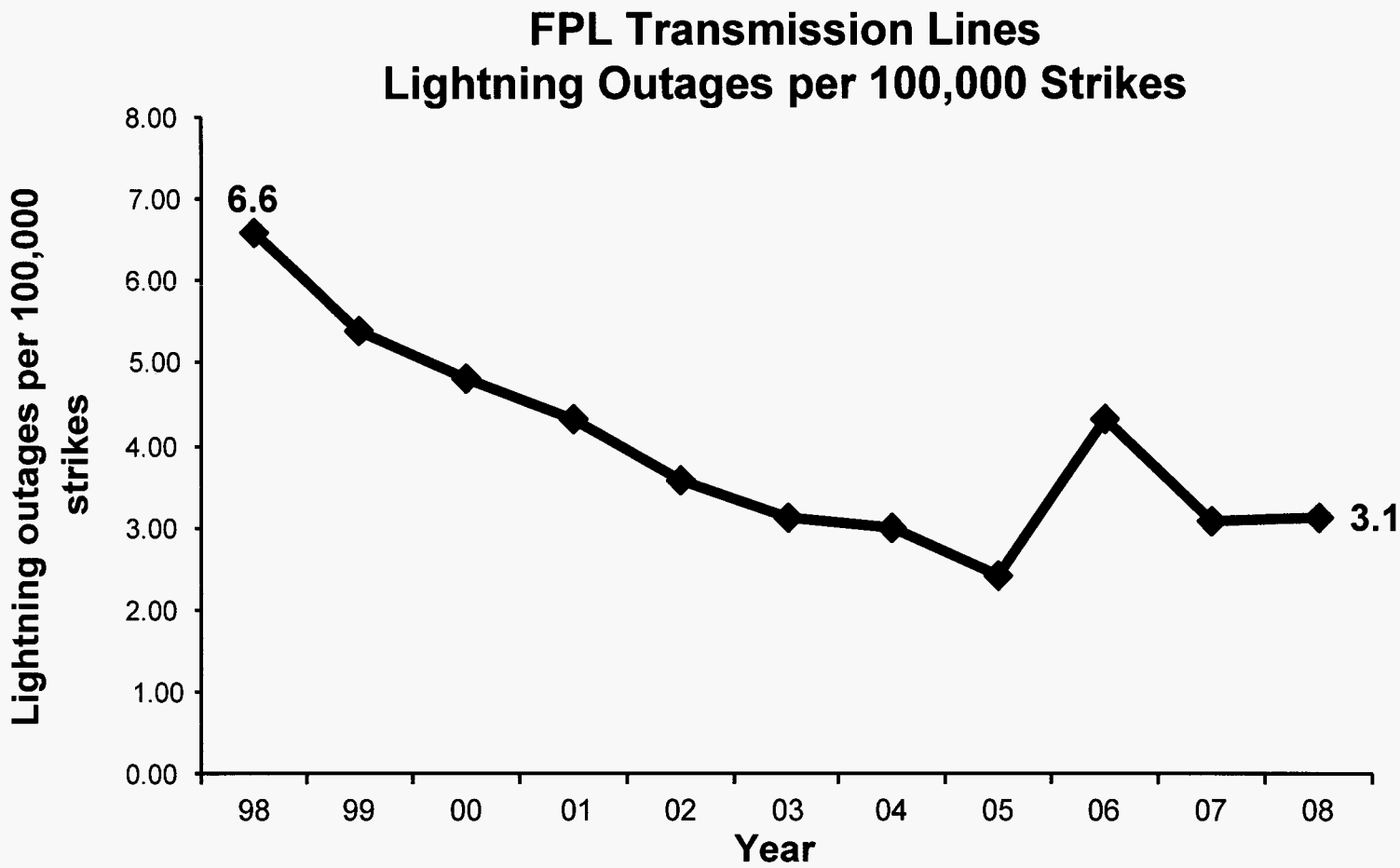
The FPL Transmission SAIDI compares favorably in recent industry benchmarking studies.



For industry comparisons, SAIDI is calculated for outages greater than or equal to five minutes versus FPSC definition of SAIDI of greater than or equal to one minute.

Docket No. 080677-EI
2008 SGS Transmission Reliability Benchmarking Study All Voltages 2005-2007 (3 years)
Exhibit JAK-1 Page 1 of 1

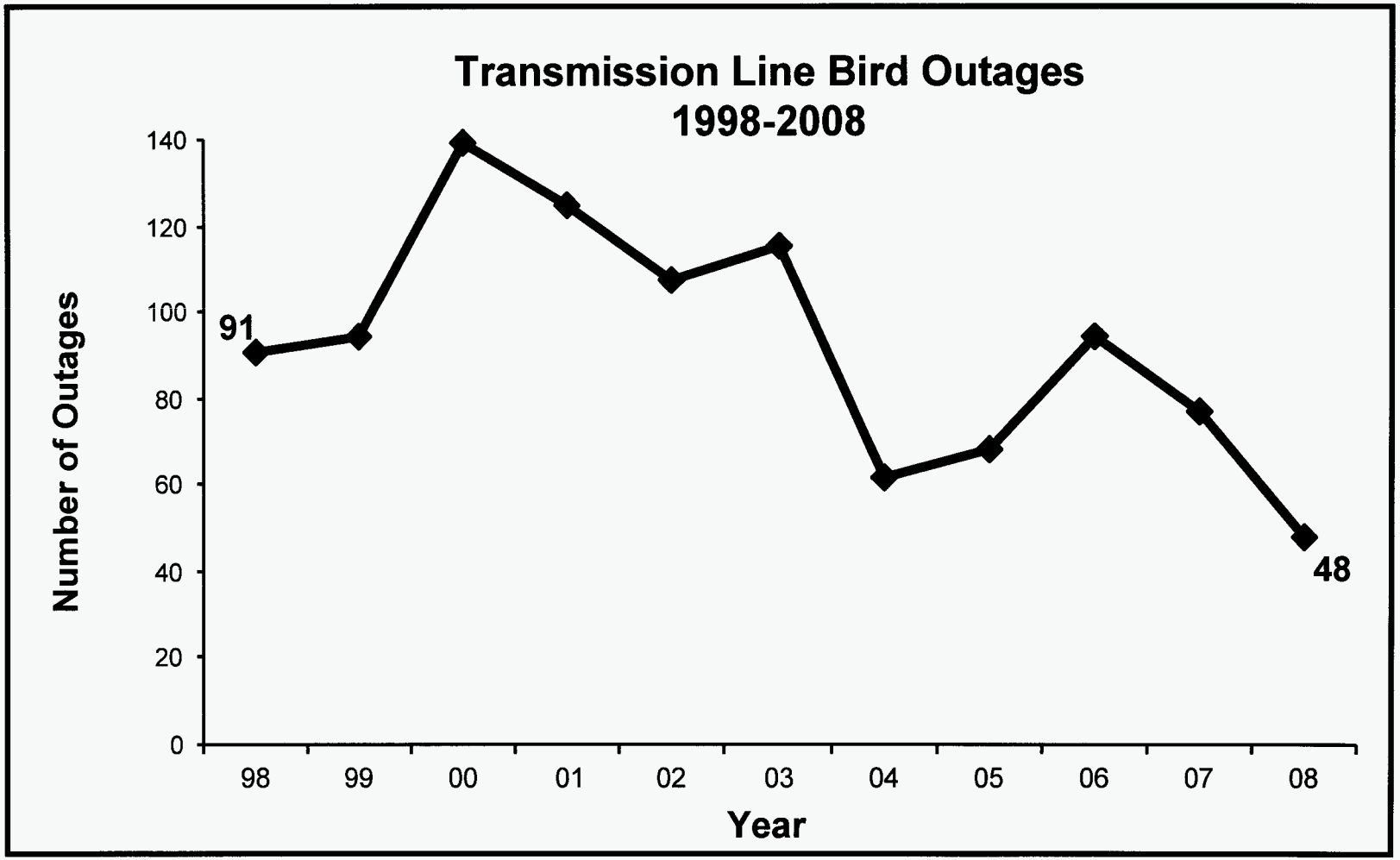
FPL has reduced the number of lightning outages by over 45 percent in the 1998-2008 period.



FPL's high performance demonstrates the effectiveness of the new design standards and countermeasures deployed.

Docket No. 080677-E1
FPL Transmission Lines
Lightning Outages Per
100,000 Strikes
Exhibit JAK-2 page 1 of 1

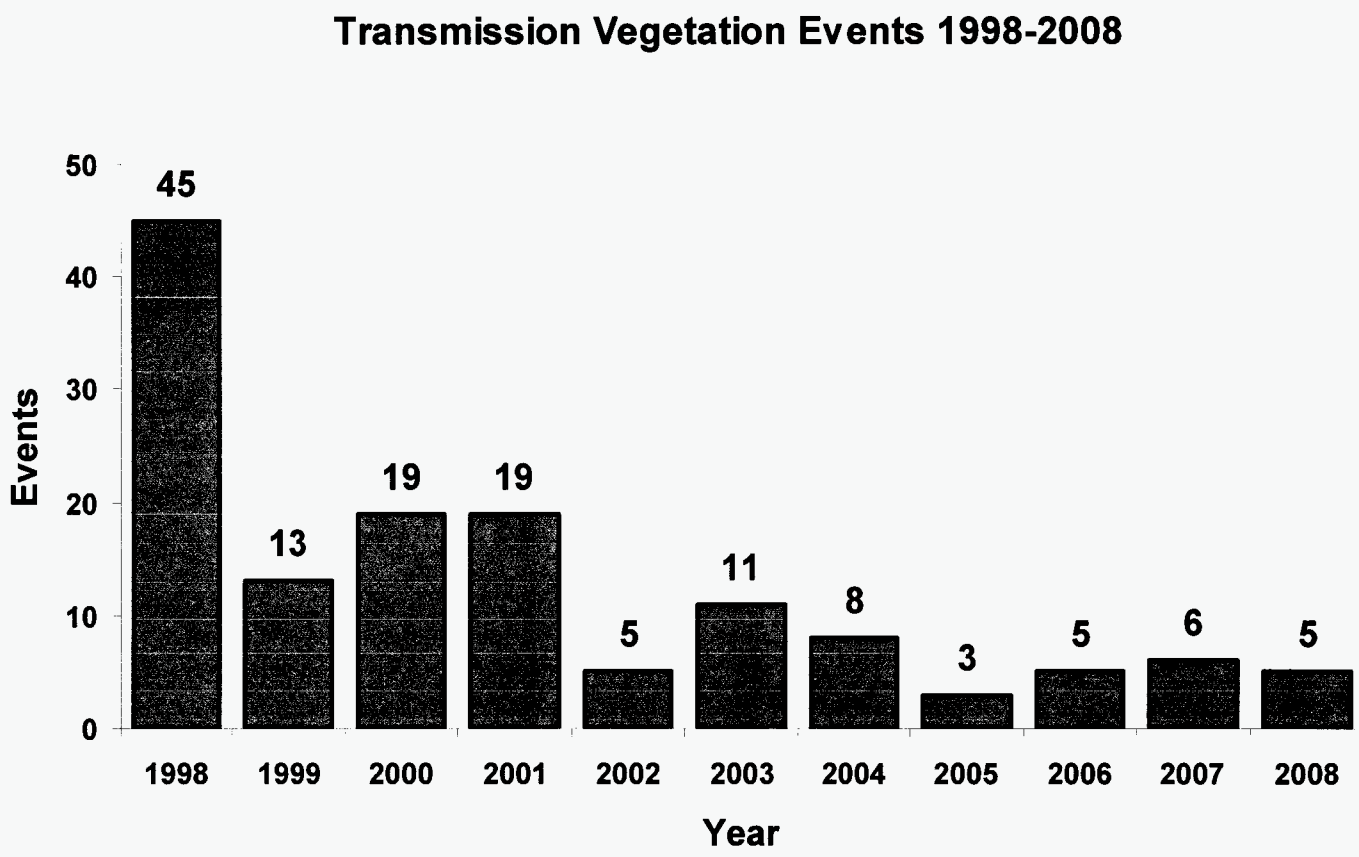
FPL's reliability program has contributed to a 47 percent reduction in the number of outages related to birds in the 1998-2008 period.



Mitigation projects and rebuilding of lines with new structures designed to deter bird perching has helped to minimize the number of outages related to birds.

Docket No. 080677-E1
Transmission Line Bird Outages 1998-2008
Exhibit JAK-3 page 1 of 1

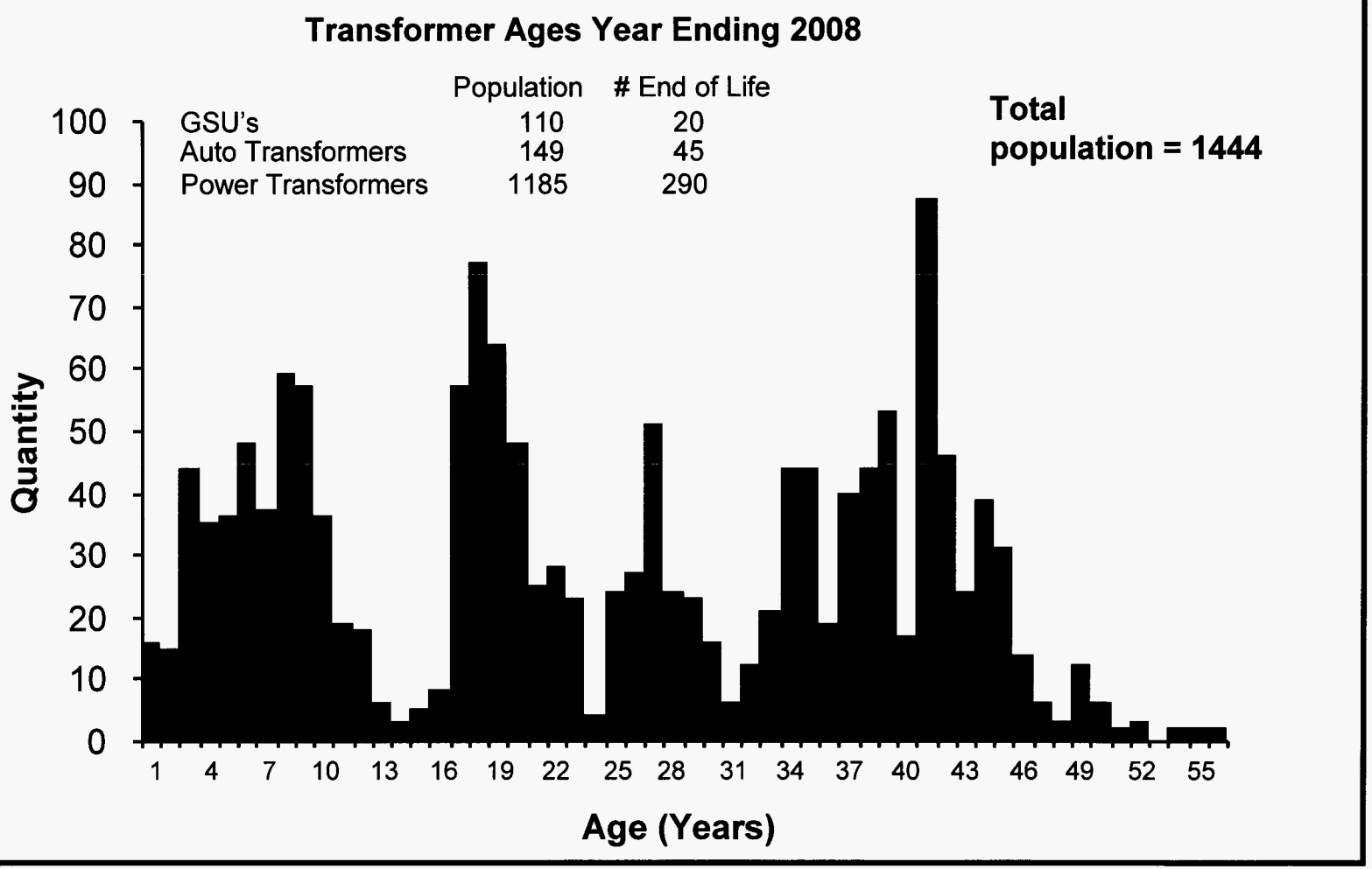
FPL has reduced the number of transmission outages related to vegetation events by over 88 percent in the 1998-2008 period.



FPL attributes the success of its vegetation management program to the increased frequency of inspection work followed by remediation of risks.

Docket No. 080677-EI
Transmission Vegetation Events 1998-2008
Exhibit JAK-4, Page 1 of 1

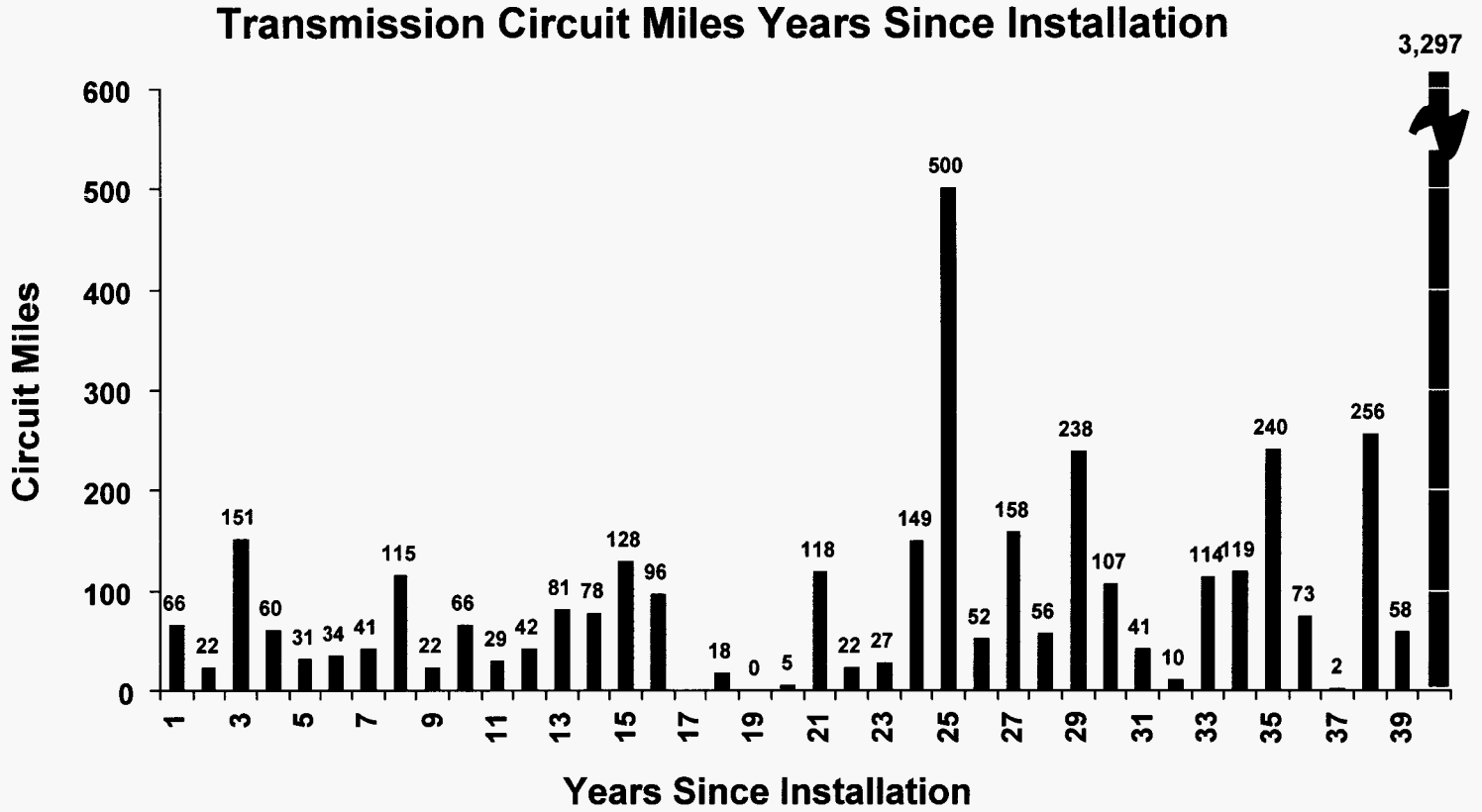
FPL must replace or refurbish its aging fleet of transformers to minimize customer interruptions.



For transformers, additional end-of-life drivers besides age include water, moisture, temperature, through faults and over-excitation.

Docket No. 080677-EI
Transformer Ages Year Ending 2008
Exhibit JAK-5, Page 1 of 1

FPL's aging transmission infrastructure requires refurbishment to maintain current high levels of service reliability.



Approximately 60 percent of FPL's transmission lines are 30 years of age or older.

Docket No. 080677-EI
Transmission Circuit Miles Years Since Installation
Exhibit JAK-6, Page 1 of 1