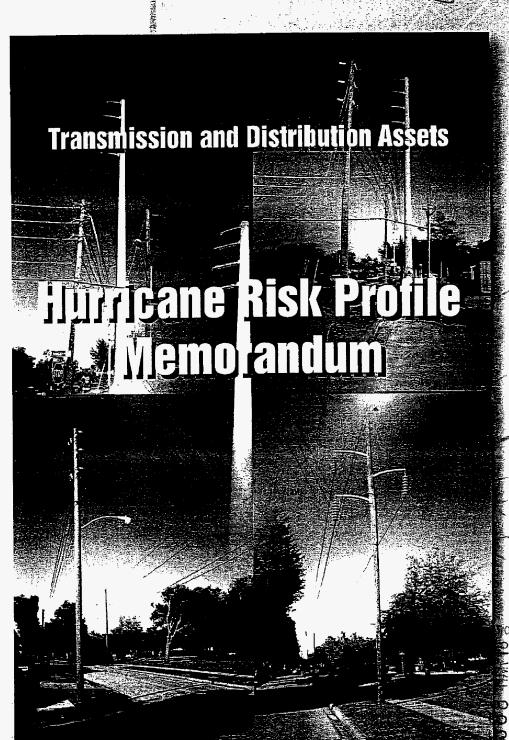


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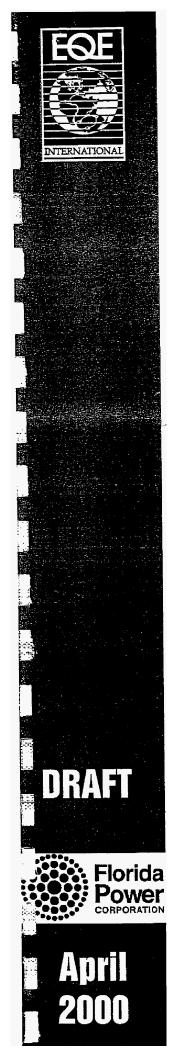
April 2000

Prepared by:

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QE International, Inc.

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# **Florida Power Corporation**

**Transmission and Distribution Assets** 

# Hurricane Risk Profile Memorandum

PEF-SR-09757

Prepared by: EOE International, Inc.

#### DISCLAIMER

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PEF-SR-09758



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#### Risk Profile

The following is a summary description of a confidential risk analysis performed for Florida Power Corporation, and is intended to be used solely by insurers, reinsurers, or other financial intermediaries in regard to providing catastrophic risk transfer coverage.

INSURED	Flori	ida Power Corporat	ion
ASSETS		istribution (T & D) Syers, and conductors; uctors, lighting and or assets	Distribution poles,
LOCATION	All T & D asse	ets located within Sta	ate of Florida
ASSET VALUE		t value is approxima tely 30% is transmis distribution	
LOSS PERIL	Hurrica	ne Windstorm (SSI	1 to 5)
EXPECTED ANNUAL DAMAGE		\$ 8:4 million	
1% AGGREGATE DAMAGE EXCEEDANCE VALUE	\$1	150 million (one year	)
AGGREGATE DAMAGE EXCEEDANCE PROBABILITES	One Year	Three Years	Five Years
\$25 million	7.4%	23.9%	40.2%
\$50 million	3.7%	12.3%	22.4%
\$100 million	1.7%	. 5.6%	10.4%
\$150 million	1.0%	3.3%	6.1%
\$200 million	0.6%	2.1%	3.9%

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#### Memorandum Summary 1.

Florida Power Corporation's (FPC) transmission and distribution (T & D) systems are exposed to and in the past have sustained damage from hurricanes. The exposure of these assets to hurricane damage is described and potential losses are quantified in this memorandum. Loss analyses were performed by EQE International, using an advanced computer model simulation program USWIND ™developed by EQE. All results which are presented here have been calculated using USWIND and the FPC T & D asset portfolio.

The hurricane exposure is analyzed from both a scenario approach, which models specific storm characteristics, and a probabilistic approach, which considers the full range of potential storm characteristics and corresponding losses. Scenario analysis produce expected or most likely damage amounts resulting from defined storms. Probabilistic analyses identify the probability of damage exceeding a specific dollar amount. Damage is defined as the cost associated with repair and/or replacement of T & D assets necessary to promptly restore service in a post hurricane environment. This cost is typically larger than the costs associated with scheduled repair and replacement programs.

Factors considered in the analysis include the location of FPC's overhead and underground T & D assets, the probability of hurricanes of different intensities and/or landfall points impacting those assets, the vulnerability of those assets to storm damage, and the costs to repair assets and restore electrical service. The computer model simulations were benchmarked to loss data from FPC in the recent hurricanes Erin, and Floyd.

#### Loss Estimation Methodology

The basic components of the hurricane risk analysis include:

Assets at risk: define and locate

- Hurricane hazard: apply probabilistic storm model for the region
- Asset vulnerabilities: severity (wind speed) versus damage
- Portfolio Analysis: probabilistic analysis -damage/ loss

These are analysis components are summarized herein.



#### Assets at Risk 2.

FPC's Transmission and Distribution (T & D) System assets consist of:Transmission towers, and conductors; Distribution poles, transformers, conductors, lighting and other miscellaneous assets. The total normal replacement value of these assets is approximately \$ 3.6 billion, 30% of which is transmission and 70% distribution. Normal replacement value is the cost of replacing the assets under normal non-catastrophe conditions. The following table shows the percent distribution of T & D values and the amount above/below ground, since vulnerability to loss is substantially different for each category.

FPC TRANSMISSION AND DISTRIBUTION ASSET VALUES (%)

TRANSMISSION		DISTRIBUTION	TOTAL		
TOTAL	30%	70%	100%		

FPC's Transmission and Distribution assets are distributed unevenly across their service territory, encompassing a large portion of the state of Florida. Tables 2-1 and 2-2 show the values within Florida for the counties that make up approximately 90% the total distribution and transmission assets, indicating a concentration of values in the central portion of the state. Figures 2-1 shows a map of FPC's transmission system while Figures 2-2 shows a map of the distribution values.

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Table 2-1 DISTRIBUTION VALUES BY COUNTY, LARGEST COUNTIES

County (major city)	Value (\$Millions)
Pinellas (St. Petersburg)	\$666.7
Orange (Orlando)	\$422.2
Seminole	\$198.4
Polk (Lakeland)	\$161.7
Pasco	\$155.4
Marion (Ocala)	\$126.8
Lake	\$114.4
Volusia (Daytona Beach)	\$112.6
Citrus	\$106. <b>1</b>
Highlands	\$102.3
Osceola	- \$ 64.3
Sumter	\$ 44.5
Hernando	\$ 32.1
Franklin	\$ 24.6
19 Other Counties	\$198.9
Total	\$2,531.1

Table 2-2
TRANSMISSION VALUES BY COUNTY, LARGEST COUNTIES

Sumter	\$629.2
Polk (Lakeland)	\$ 31.5
Wakulla	\$ 24.9
Gadsden	\$ 24.6
Hillsborough	\$ 23.7
Leon (Tallahassee)	\$ 23.2
Alachua (Gainsville)	\$ 21.6
Madison	\$ 21.5
Marion (Ocala)	\$ 20.6
Highlands	\$ 20.6
Bay	- \$19.9
Osceola	\$ 19.8
Orange (Orlando)	\$ 18.5
Levy	\$ 18.3
Liberty	\$ 16.9
Volusia (Daytona Beach)	\$ 14.2
Lake	\$ 14.1
Dixie	\$ 13.4
Jefferson	\$ 13.4
14 Other Counties	\$111.2
Total	\$1,100.9

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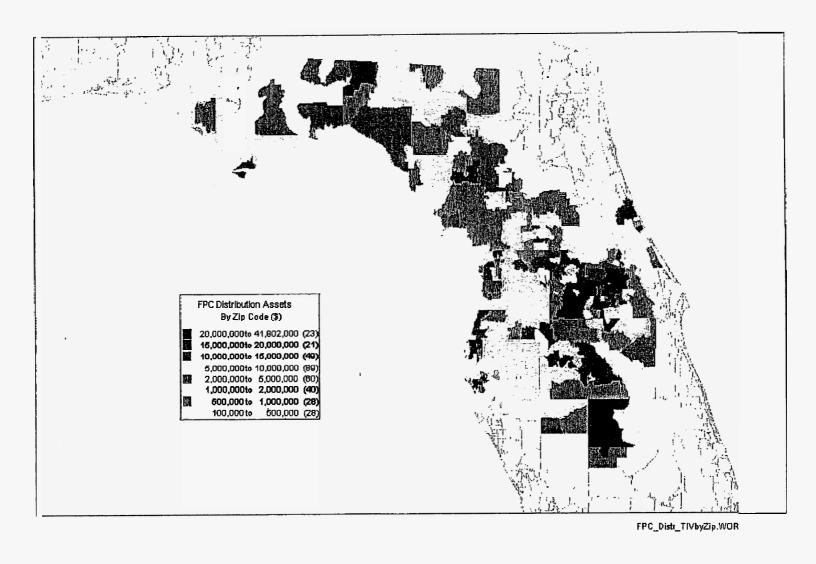


Figure 2-1: FPC Distribution Assets by Zip Code



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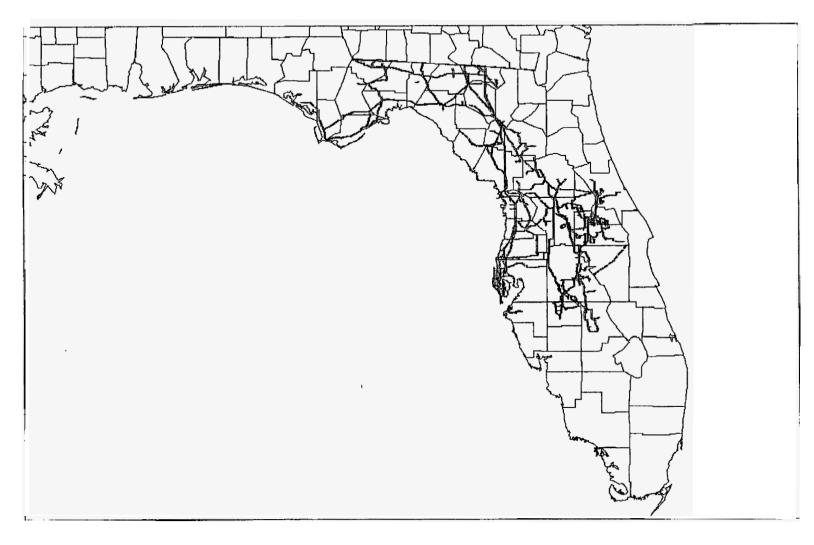


Figure 2-2: FPC Transmission System



#### 3. Hurricane Hazard in Florida

The historical record for hurricanes on the Gulf and Atlantic coasts of the United States consists of approximately 100 years for which reasonably accurate information is available. For example, since 1900, there have been 57 hurricanes SSI 1 or greater (see Table 3-1 for description of the Saffir-Simpson Intensity (SSI) scale) which have made landfall in the state of Florida. Going back further, written descriptions of storms are available, but it becomes increasingly difficult to estimate actual storm intensities and track locations in a reliable manner consistent with the later data. For this reason all hypothetical storms used in this analysis, as well as their corresponding frequencies, have been based only on hurricanes that have occurred since 1900. The analysis did not include sub-hurricane (wind speed less than 74 MPH) or other severe weather phenomena such as tornadoes, thunderstorms, hail, or winter storms.

Since the historical record is too sparse to simply extrapolate future hurricane landfall probabilities, a series of hypothetical storms was generated in the USWIND<sup>TM</sup> probabilistic storm database, essentially "filling in" the gaps in the historical data. This provides an estimate of future potential storm locations (landfall), track, severity and frequency consistent with the observed historical data.

EQE developed its hurricane model, using the National Oceanic and Atmospheric Administration (NOAA) model as the base, to determine individual risk wind speeds. The NOAA model was designed to model only a few specific types of storms. While the eye of the hurricane follows the selected track, the EQE model uses up to a dozen different storm parameters to estimate wind speeds at all distances away from the eye.

The hurricane intensities used for the analyses conform to basic NOAA information regarding hurricane intensity recurrence relationships corresponding to locations along the coast. Much of FPC's service territory includes the western Florida coastal area where some of these hurricanes have made landfall. If they were to re-occur, these storms would cause significant amounts of damage to FPC's T & D assets.

The Pinellas County region is in the highest risk region of Florida Power Corporation's service territory due to the its coastal location combined with the population concentration compared to the other parts of the service territory.

Table 3-1 THE SAFFIR-SIMPSON INTENSITY (SSI) SCALE (NOTE THAT WINDSPEEDS GIVEN ARE 1-MINUTE SUSTAINED)

Saffir- Simpson Intensity (SSI)	Central Pressure (mb)	Maximum Sustained Winds (mph)	Storm- Surge Height (ft)	Damage
1	≥ 980	74-95	4-5	Damage mainly to trees, shrubbery, and unanchored mobile homes
2	965-979	96-110	6-8	Some trees blown down; major damage to exposed mobile homes; some damage to roofs of buildings
3	945-964	111-130	9-12	Foliage removed from trees; large trees blown down; mobile homes destroyed; some structural damage to small buildings
4	920-944	131-155	13-18	All signs blown down; extensive damage to roofs, windows, and doors; complete destruction of mobile homes; flooding inland as far as 6 mi.; major damage to lower floors of structures near shore
5	< 920	> 155	> 18	Severe damage to windows and doors; extensive damage to roofs of homes and industrial buildings; small buildings overturned and blown away; major damage to lower floors of all structures less than 15 ft. above sea level within 500m of shore

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#### 4. Asset Vulnerabilities

Aerial transmission and distribution lines and structures have suffered damage in past hurricanes. Damage patterns tend to be most severe in coastal areas due to a combination of wind and storm surge. Underground distribution lines have also been subject to storm damage. Damage to inland aerial lifelines tends to be less severe with greater contributions to damage from wind-borne debris. The types of wind-borne debris can include tree and tree limbs, and roofing materials as well as structure debris at higher wind speeds.

FPC aerial transmission and distribution structures are designed to sustain design-level hurricane winds. These design criteria specify design wind speeds for transmission structures and lines. Distribution poles are assumed to have uniform design capacities for the entire service territory.

Vulnerabilities were developed using FPC-provided data on historical hurricane damage experience, FPC design standards, and engineering judgments of the relative performance of the structures and material types.

#### **Summary of Portfolio Analysis** 5.

EQE analyzed the FPC portfolio of transmission and distribution (T & D) assets subject to a suite of probabilistic storms and a series of scenario storms using the proprietary computer program, USWIND™. The probabilistic storm analyses provide nonexceedance probabilities over a range of loss levels while the scenario landfall storm series provides a damage distribution for selected storms at landfalls within FPC's service territory. A brief discussion of benchmark studies is also presented since it provides estimates of FPC losses from two recent storms

#### 5.1 Probabilistic Analysis

The probabilistic loss analysis is performed using USWIND<sup>TM</sup>. The hurricane hazard uses the USWIND TM probabilistic database which models the coastline in 10 mile segments and models more than 1,500 hypothetical storms for each segment. The net result is a stochastic storm database of more than 500,000 events that represents possible hurricanes affecting the eastern United States, along both the Gulf and the Atlantic coasts. Each hurricane in the database has been defined by associating a central pressure with a unique storm track. In addition, each hurricane is assigned an annual frequency of occurrence, which depends on the storm track location and the storm intensity as measured by central pressure.

For each location in the portfolio, the wind speed is calculated, and based on the type of asset, the degree of damage is estimated. The result for each asset location is an estimate of the mean damage and associated uncertainty. Total portfolio damage, defined as expected (mean) damage, is the sum of the individual property's damage. Uncertainty of an individual asset's damage is calculated to determine the total portfolio damage uncertainty, taking into account correlation between assets. Knowledge of the total portfolio damage probabilistic distribution permits estimation of total portfolio damage with varying probability levels.

Given the annual frequency and the portfolio loss for each event, a probabilistic database of losses is developed. By manipulating this database, various loss exceedance or non-exceedance distributions are generated.

#### Aggregate Damage Exceedance for One, Three, and Five Years

Aggregate damage exceedance calculations are developed by keeping a running total of damage from all possible events in a given time period. At the end of each time period, the aggregate damage for all events is then determined by probabilistically summing the damage distribution from each event, taking into account the event frequency. The process considers the probability of having zero events, one event, two events, etc. during the time period.

A series of probabilistic analyses were performed, using the vulnerability curves derived for FPC assets and the computer program USWIND™. A summary of the analysis is presented in Table 5-1, which shows the aggregate damage (i.e. deductible is "0") exceedance probability for three time periods; one, three and five years for damage layers between zero and over one billion dollars.

For each damage layer shown, the probability of damage exceeding a specified value is shown. For example, the probability of damage exceeding \$100 million in one year is 1.7%, while it is 5.6% and 10.4% for a three and five year period. The analysis calculates the probability of damage from all storms and aggregates the total, resulting in increasing exceedance probabilities for the three and five year periods when compared to the one year value.

Table 5-1 also shows, for each damage layer, the contribution of that layer to the expected annual damage of \$ 8.4 million, which is the annual damage calculated from all storms with varying severity and frequency. The expected annual damage represents the damage to T & D assets on an annual basis over a long period of time.

For the example given above, the contribution to the \$8.4 million expected annual damage in the \$100 to \$125 million layer is \$446 million for the one-year period. For the three and five year periods, the values are \$504 and \$560 million, respectively.

Table 5-1

#### FPC T & D ASSETS AGGREGATE DAMAGE EXCEEDANCE PROBABILITIES AND EXPECTED ANNUAL DAMAGE BY LAYER

Damage Layer	1 y	ear	3 )	/ear	5 ye	ar
(\$millions)	Exceedance Probability	Expected Annual Damage (\$000)	Exceedance Probability	Expected Annual Damage (\$000)	Exceedance Probability	Expected Annual Damage (\$000)
0 (≥.5)	33.8%	1,979	71.2%	1,411	87.5%	973
25	7.4%	1,314	23.8%	1,350	40.2%	1,269
50	3.6%	807	12.3%	909	22.4%	966
75	2.3%	558	7.9%	645	14.5%	718
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125	1.3%	391	4.3%	429	_7.8%	470
150	1.0%	351	3.3%	380	6.1%	412
175	0.8%	321	2.6%	346	4.9%	372
200	0.6%	284	2.1%	309	3.9%	334
225	0.5%	238	1.6%	266	3.1%	293
250	0.4%	225	1.3%	224	2.5%	250
All Else	0.3%	1,507	1.0%	1,648	2.0%	1,805
Total		8,420		8,420		8,420

#### Aggregate Loss Exceedance for One, Three, and Five Years

For insurance/risk transfer purposes, the above analyses were also performed with varying deductibles or attachment levels, which permits an insurer to assess the amount of loss (i.e. damage less deductible) they are exposed to.

The FPC "portfolio" consists of only one policy with a single aggregate deductible, as contrasted with a typical large insurance portfolio with multiple policies with the same deductible. Because of the single aggregate deductible, Table 5-1 above can also be used to estimate the loss to insurers on a layer basis. For example, assuming an

insurer offered a one year policy \$50 xs \$100 million, its probability of losses penetrating the \$100 million layer would be 1.7% and the probability of the layer being exhausted would be 1.0%. Similarly, the expected annual loss for this layer is the sum of \$446 thousand and \$ 391 thousand or \$837 thousand. The three and five year values would be derived in a similar manner.

#### Per Occurrence Damage and Loss Exceedance for One, Three, and Five Years

Another approach to quantify losses is to calculate the damage for each time period from the single largest and most likely event, and apply the deductible to that event to calculate the loss. This is called a per-occurrence exceedance curve. The exceedance curve considers the possibility that damage/losses may be from any event in the probabilistic storm database. Because it includes effects from only the largest event, the per occurrence probabilities are always less than the aggregate probabilities. The amount of difference between the two cases indicates the damage and loss contributions from more than one event in any given period. This can provide additional insight into the risk associated with a second event. For the FPC's portfolio, the one year per occurrence probabilities are approximately 98% to 100% of the aggregate probabilities, indicating that most of the risk of damage and loss is associated with one major storm as opposed to two or more storms for a given period.

#### 5.2 Landfall Analyses for SSI Ranges

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In order to provide further insight into FPC's risk profile, scenario landfall storms were analyzed for four storm intensities. The storm series are located along the full length of the Florida coastline. The landfall locations were between mile posts 850 to 1390, the west coast of Florida and mile posts 1400 to 1800, the east coast of Florida. See Figure 5-1 for a map of Florida showing the landfall locations. These mile posts extend from Escambia County in the north-west to Monroe county in the south and from Dade county in the south to Duval County in the north east at approximately 10-mile intervals. The selected storm tracks were based on the USWIND™ landfall series storm tracks, which represent the most likely landfall azimuth and track for each landfall point.

The five storm intensities were mid-range SSI 2, 3, 4 and 5 storms as defined by their minimum barometric pressures. The pressures were 973, 956, 933 and 903 millibars, respectively for each storm.

The damage for each 'set' of one storm intensity and landfall locations were converted into bar charts for display. Damage for these storms are in the following ranges for SSI 2-5 storms making landfall between milepost 1050-Jefferson to 1270-Charlotte and 1490-Dade to 1720-Volusia:

Storm Intensity	Damage Range (\$M) West Coast Landfalls (Milepost 1050 to 1270)	Damage Range (\$M) East Coast Landfalls (Milepost 1490 to 1720)
SSI 2	\$6 to \$98	\$9 to \$28
SSI 3	\$13 to \$277	\$14 to \$54
SSI 4	\$38 to \$689	\$29 to \$155
SSI 5	\$58 to \$734	\$35 to \$400

Figures 5-2 through 5-5 provide bar charts illustrating the distribution of mean damage for SSI 2-5 storms making landfall between milepost 850 to 1800.

#### 5.3 Benchmark Studies

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Several hurricane benchmark studies were performed to calibrate and validate the T & D vulnerability functions and hurricane model. Storm data and losses from two recent storms that affected FPC service areas were utilized. These include Hurricane Erin (1995) and Hurricane Floyd (1999). The FPC asset portfolio was analyzed for these historic storms using USWIND<sup>TM</sup>, and the results are compared against reported FPC losses in Table 5-2 below. The historic storm simulations allow calibration of the model to forecast restoration and repair costs to damaged FPC system assets. These costs typically include the cost of damaged capital plant and equipment as well as payroll, associated vehicle, inventory, and support costs for the restoration efforts. Repair and restoration costs are typically much greater than normal replacement values.

These storms are important benchmarks because they are relatively recent, having occurred in the last five years. Although FPC is constantly expanding its service areas, and possibly changing design and construction practices, the model portfolio as of mid-1999 is believed to be a reasonable representation of FPC assets over the last five years. Moreover, relatively "good" exposure and claims data are available for these storms. The comparisons between simulated losses and FPC historic losses show reasonable correlation for the storm simulations with SSI intensities of 2, and 4 and provide a relevant measure of the model's validity.

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Table 5-2 COMPARISON OF EQE HISTORIC LOSS SIMULATION WITH FPC HISTORIC HURRICANE LOSSES (DOLLARS IN THOUSANDS)

Simulation <sup>(1)</sup> Losses	Erin 1995	Floyd 1999
Distribution	\$4,045	\$2,389
Transmission	58	3
Total	\$4,104	\$2,392
FPC Actual Losses	\$4,146	\$2,500 <sup>(2)</sup>
Relative Difference	-1%	-4%

All analyses were done using the 1999 values. No adjustments Note 1:

were made for asset inflation or system expansion.

Preliminary loss estimates. Note 2:

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Figure 5-1: Scenario Storm Landfall Mile Posts

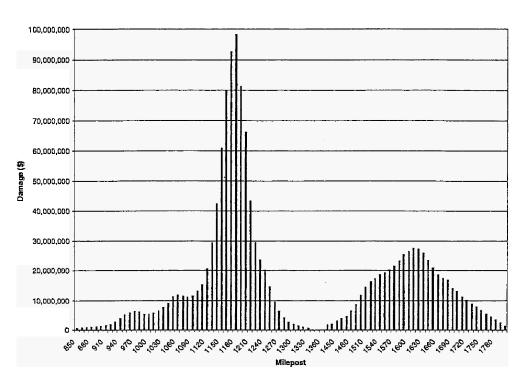


Figure 5-2: Mean Damage from SSI 2 Landfalls

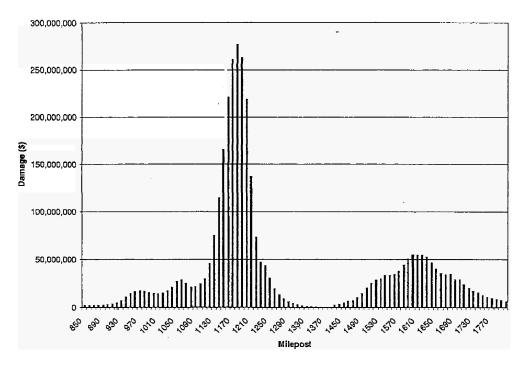


Figure 5-3: Mean Damage from SSI 3 Landfalls

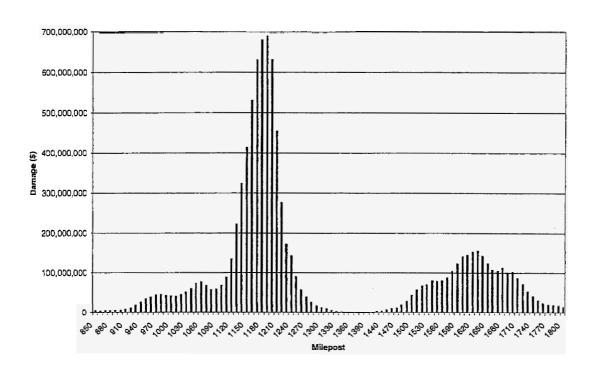


Figure 5-4: Mean Damage from SSI 4 Landfalls

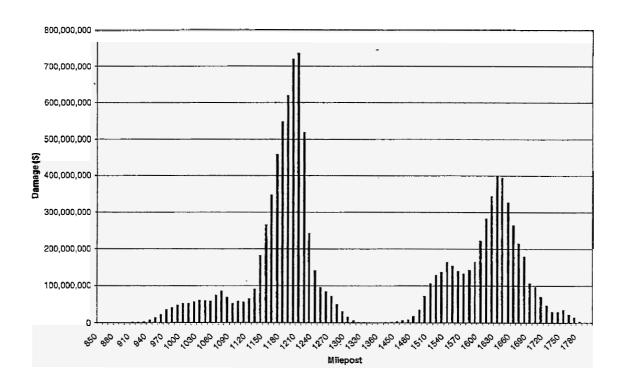


Figure 5-5: Mean Damage from SSI 5 Landfalls

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#### 6. References

 EQECAT Report "Florida Commission on Hurricane Loss Projection Methodology." July, 1997.



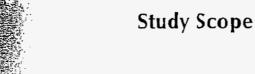
# Hurricane Risk Study Transmission and Distribution Assets

Presented to:
Florida Power Corporation

Presented by:

Steven Harris EQE International







Develop Loss Exceedance Curves.

Annual Occurrence Analyses

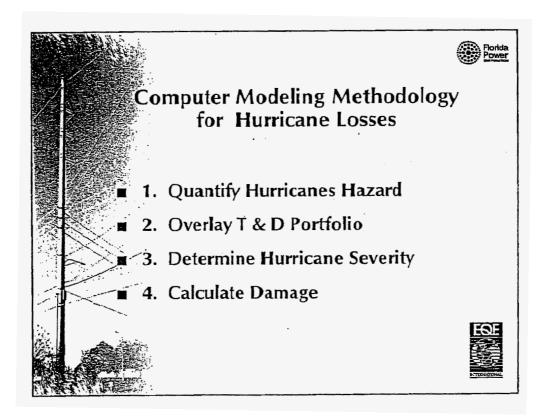
Aggregate Analyses

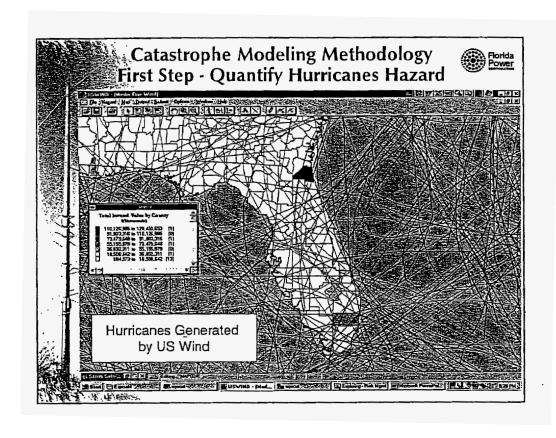
- Multi-Year Aggregate Analyses

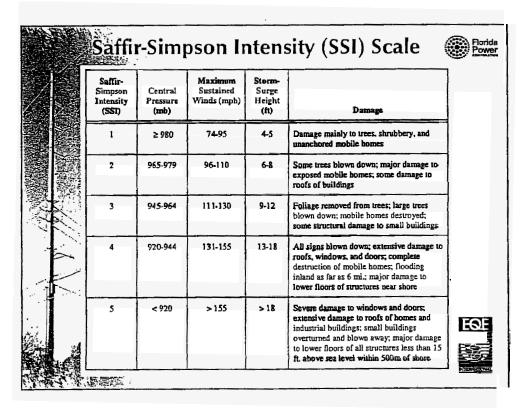
SSI Storms 1 through 5

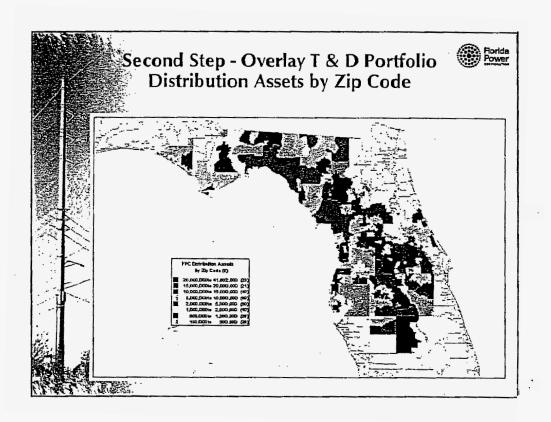
Scenario Storms - SSI 2 through 5 Storms.

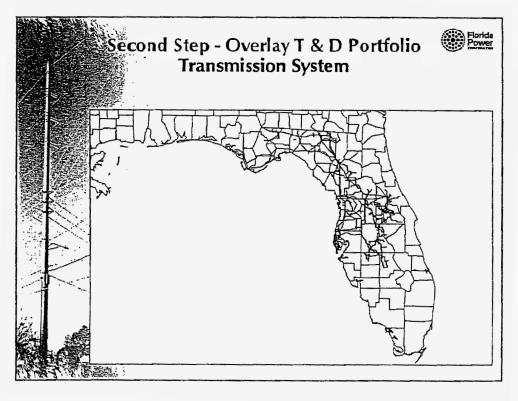




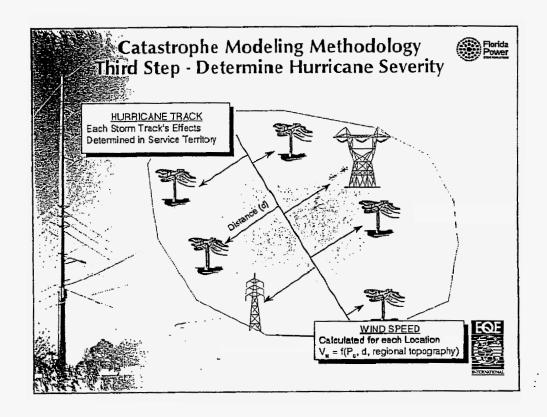


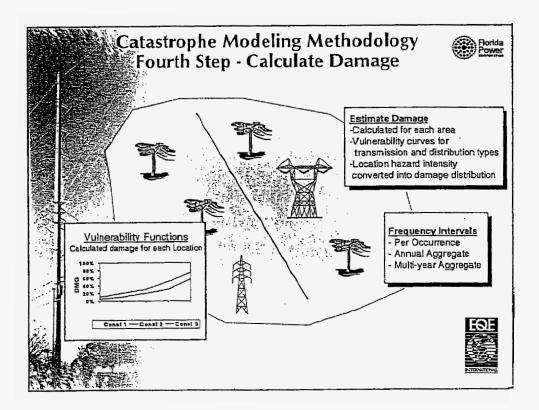


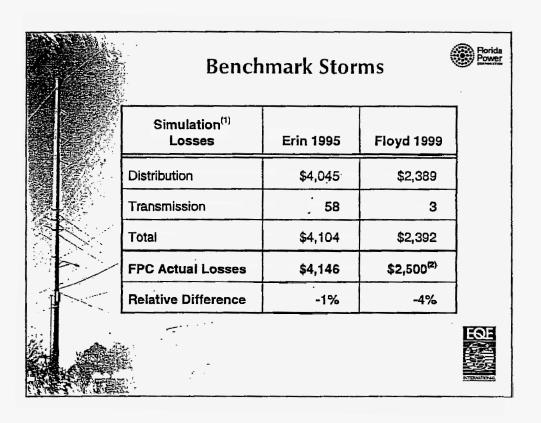


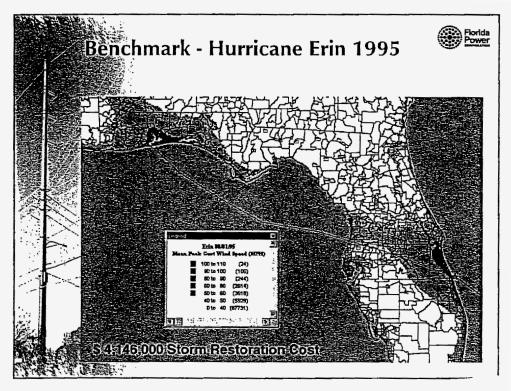


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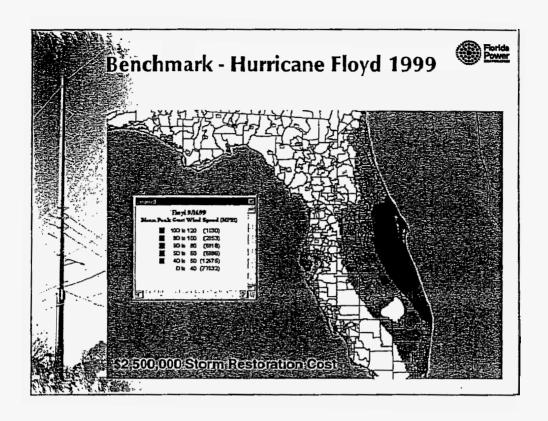


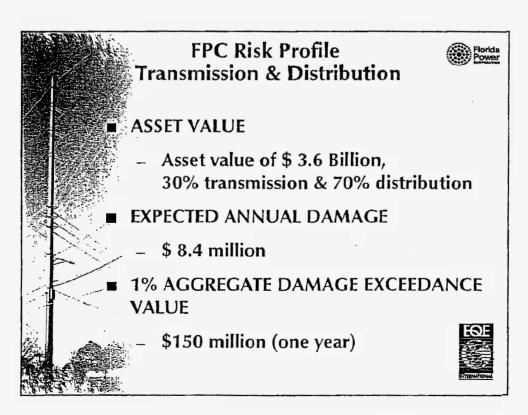


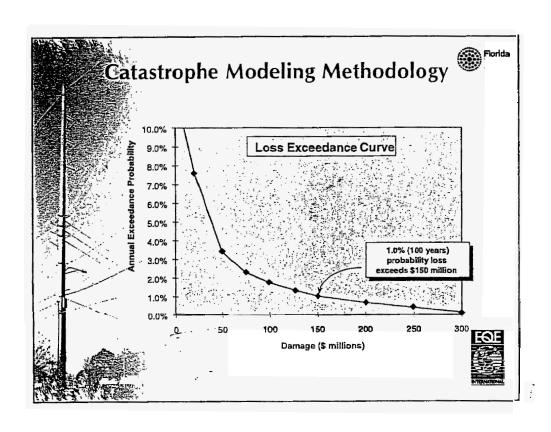


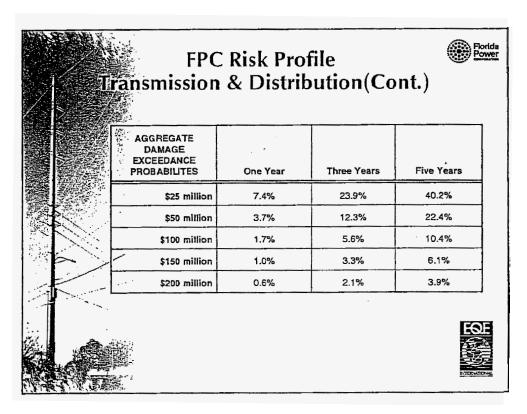


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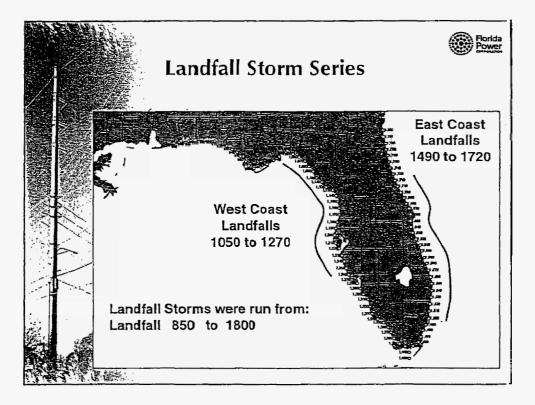


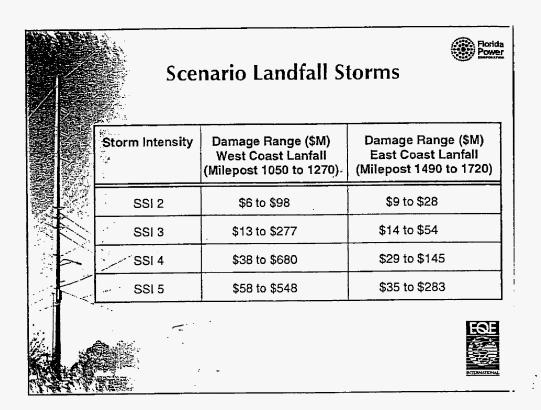


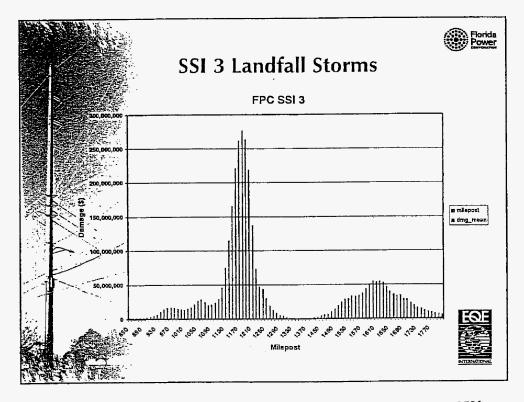




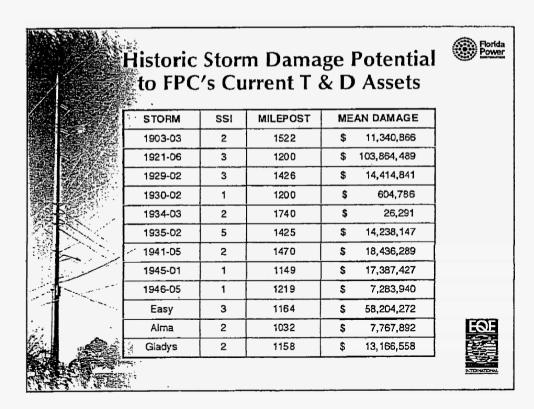
Aggregate Damage Exceedance Probabilities						
Damage	1 1 1	ear	3 y	rear	5 ye	ar'
(\$million	Exceedance Probability	Expected Annual Damage (\$000)	Exceedance Probability	Expected Annual Damage (SDOO)	Exceedance Probability	Expected Annual Damage (S000)
0 (>.5)	33.B%	1,979	71.2%	1,411	87.5%	973
25	7.4%	1,314	23.8%	1,350	40.2%	1,269
50	3.6%	807	12.3%	909	22.4%	966
75	2.3%	55B	7.9%	· 645	14.5%	718
100	1.7%	446	5.6%	504	10.4%	560
125	1.3%	391	4.3%	429	7.8%	470
150	1.0%	351	3.3%	380	6.1%	412
175	0.8%	321	2.6%	346	4.9%	372
200	0.6%	284	2.1%	309	3.9%	334
225	0.5%	238	1.6%	266	3.1%	293
250	- 0.4%	225	1.3%	224	2.5%	250
All Else	0.3%	1,507	1.0%	1,648	2.0%	1,805
Total	T /	B,420	1	8,420		8,420

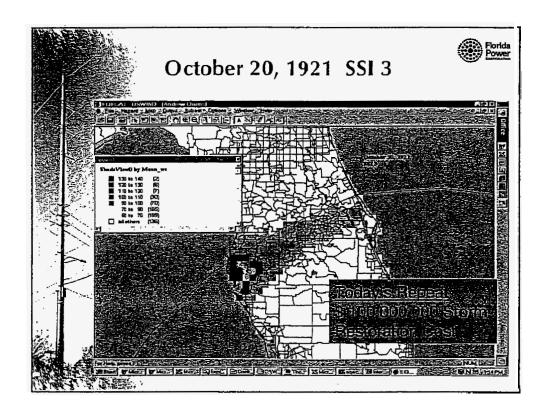


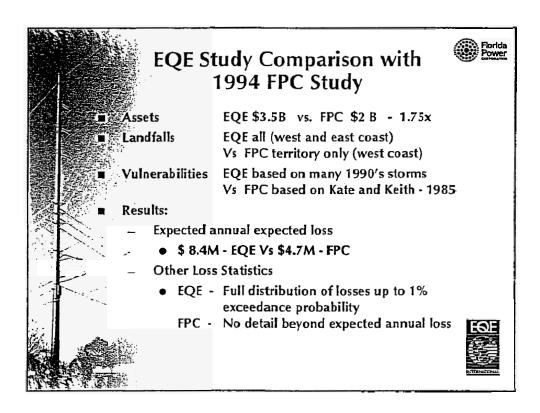














### **Conclusions**

- The last 50 years of Florida hurricane history has been less active than historical
- FPC has significant T&D exposure
- Asset concentrations exist for both east(Pinellas) and west (Orange) coast landfalls
- The probability of losses > \$25million is:

  7% per year

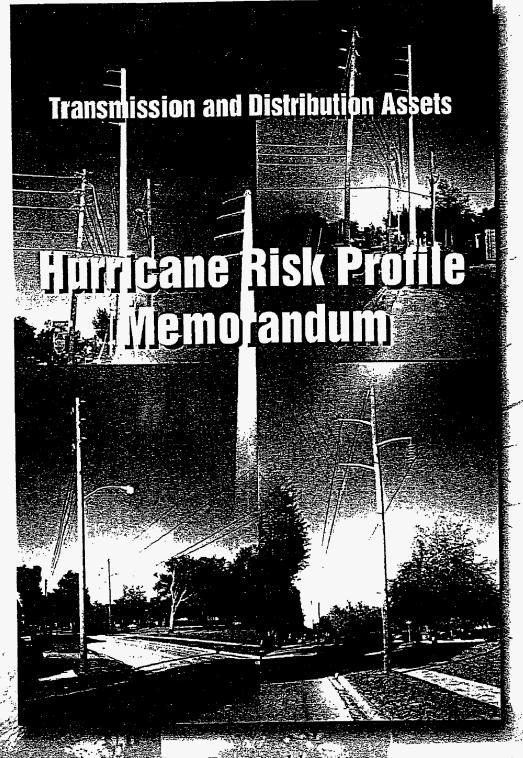
  24% in 3 years

  40% in 5 years





# Florida Power Corporation





**May** 2000

Prepared by: EQE International, Inc.



# Florida Power Corporation

**Transmission and Distribution Assets** 

# Hurricane Risk Profile Memorandum

Prepared by: EQE International, Inc.

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A SIGNIFICANT AMOUNT OF UNCERTAINTY EXISTS IN KEY ANALYSIS PARAMETERS THAT CAN ONLY BE ESTIMATED. PARTICULARLY, SUCH UNCERTAINTIES EXIST IN, BUT ARE NOT LIMITED TO: STORM SEVERITY AND LOCATIONS; ASSET VULNERABILITIES, REPLACEMENT COSTS, AND OTHER COMPUTATIONAL PARAMETERS, ANY OF WHICH ALONE CAN CAUSE ESTIMATED LOSSES TO BE SIGNIFICANTLY DIFFERENT THAN LOSSES SUSTAINED IN SPECIFIC EVENTS.



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## Risk Profile

The following is a summary description of a confidential risk analysis performed for Florida Power Corporation, and is intended to be used solely by insurers, reinsurers, or other financial intermediaries in regard to providing catastrophic risk transfer coverage.

INSURED	Florida Power Corporation			
ASSETS	Transmission and Distribution (T & D) System consisting of: Transmission towers, and conductors; Distribution poles, transformers, conductors, lighting and other miscellaneous assets			
LOCATION	All T & D ass	ets located within Sta	ate of Florida	
ASSET VALUE	Normal replacemen which approxima	t value is approxima tely 30% is transmis distribution	tely \$ 3.6 billion, of sion and 70% is	
LOSS PERIL	Hurricane Windstorm (SSI 1 to 5)			
EXPECTED ANNUAL DAMAGE	\$ 8.4 million			
1% AGGREGATE DAMAGE EXCEEDANCE VALUE	\$150 million (one year)			
AGGREGATE DAMAGE EXCEEDANCE PROBABILITES	One Year Three Years Five Years			
\$25 million	7.4% 23.9% 40.2%			
\$50 million	3.7% 12.3% 22.4%			
\$100 million	1.7% . 5.6% 10.4%			
\$150 million	1.0% 3.3% 6.1%			
\$200 million	0.6%	2.1%	3.9%	



### 1. Memorandum Summary

Florida Power Corporation's (FPC) transmission and distribution (T & D) systems are exposed to and in the past have sustained damage from hurricanes. The exposure of these assets to hurricane damage is described and potential losses are quantified in this memorandum. Loss analyses were performed by EQE International, using an advanced computer model simulation program USWIND \*\*Méeveloped by EQE. All results which are presented here have been calculated using USWIND and the FPC T & D asset portfolio.

The hurricane exposure is analyzed from both a scenario approach, which models specific storm characteristics, and a probabilistic approach, which considers the full range of potential storm characteristics and corresponding losses. Scenario analysis produce expected or most likely damage amounts resulting from defined storms. Probabilistic analyses identify the probability of damage exceeding a specific dollar amount. Damage is defined as the cost associated with repair and/or replacement of T & D assets necessary to promptly restore service in a post hurricane environment. This cost is typically larger than the costs associated with scheduled repair and replacement programs.

Factors considered in the analysis include the location of FPC's overhead and underground T & D assets, the probability of hurricanes of different intensities and/or landfall points impacting those assets, the vulnerability of those assets to storm damage, and the costs to repair assets and restore electrical service. The computer model simulations were benchmarked to loss data from FPC in the recent hurricanes Erin, and Floyd.

#### Loss Estimation Methodology

The basic components of the hurricane risk analysis include:

Assets at risk: define and locate



Hurricane hazard: apply probabilistic storm model for the region

. \*

- Asset vulnerabilities: severity (wind speed) versus damage
- Portfolio Analysis: probabilistic analysis -damage/ loss

These are analysis components are summarized herein.

---



### 2. Assets at Risk

FPC's Transmission and Distribution (T & D) System assets consist of:Transmission towers, and conductors; Distribution poles, transformers, conductors, lighting and other miscellaneous assets. The total normal replacement value of these assets is approximately \$ 3.6 billion, 30% of which is transmission and 70% distribution. Normal replacement value is the cost of replacing the assets under normal non-catastrophe conditions. The following table shows the percent distribution of T & D values and the amount above/below ground, since vulnerability to loss is substantially different for each category.

FPC TRANSMISSION AND DISTRIBUTION ASSET VALUES (%)

	TRANSMISSION	DISTRIBUTION	TOTAL
TOTAL	30%	70%	100%

FPC's Transmission and Distribution assets are distributed unevenly across their service territory, encompassing a large portion of the state of Florida. Tables 2-1 and 2-2 show the values within Florida for the counties that make up approximately 90% the total distribution and transmission assets, indicating a concentration of values in the central portion of the state. Figure 2-1 shows a map of FPC's transmission system while Figure 2-2 shows a map of the distribution asset value density by zip code.



Table 2-1
DISTRIBUTION VALUES BY COUNTY, LARGEST COUNTIES

County (major city)	Value (\$Millions)
Pinellas (St. Petersburg)	\$666.7
Orange (Orlando)	\$422.2
Seminole	\$198.4
Polk (Lakeland)	\$161.7
Pasco	\$155.4
Marion (Ocala)	\$126.8
Lake	\$114.4
Volusia (Daytona Beach)	\$112.6
Citrus	\$106.1
Highlands	\$102.3
Osceola	\$ 64.3
Sumter	\$ 44.5
Hernando	\$ 32.1
Franklin	\$ 24.6
19 Other Counties	\$198.9
Total	\$2,531.1

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Table 2-2
TRANSMISSION VALUES BY COUNTY, LARGEST COUNTIES

County (major city)	Value (\$Millions)
Sumter	\$629.2
Polk (Lakeland)	\$ 31.5
Wakulla	\$ 24.9
Gadsden	\$ 24.6
Hillsborough	\$ 23.7
Leon (Tallahassee)	\$ 23.2
Alachua (Gainsville)	\$ 21.6
Madison	\$ 21.5
Marion (Ocala)	\$ 20.6
Highlands	\$ 20.6
Bay	\$ 19.9
Osceola	\$ 19.8
Orange (Orlando)	\$ 18.5
Levy	\$ 18.3
Liberty	\$ 16.9
Volusia (Daytona Beach)	\$ 14.2
Lake	\$ 14.1
Dixie	\$ 13.4
Jefferson	\$ 13.4
14 Other Counties	\$111.2
Total	\$1,100.9



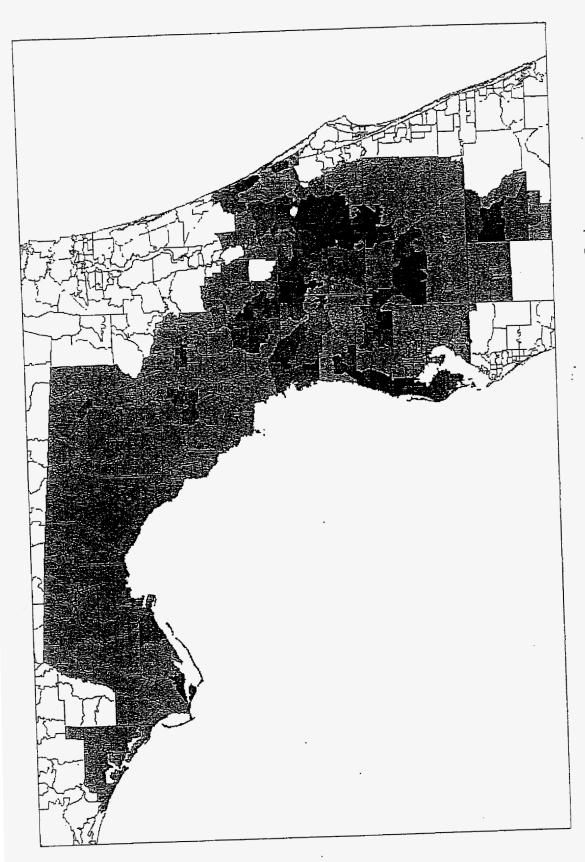


Figure 2-1: FPC Distribution Asset Value Density by Zip Code

2-2

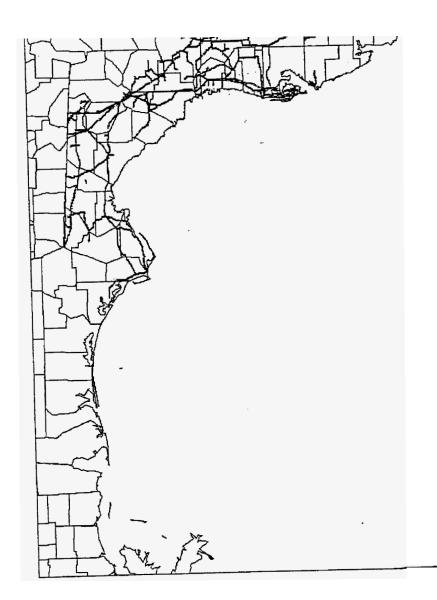


Figure 2-2: FPC Transmission System

## 3. Hurricane Hazard in Florida

The historical record for hurricanes on the Gulf and Atlantic coasts of the United States consists of approximately 100 years for which reasonably accurate information is available. For example, since 1900, there have been 57 hurricanes SSI 1 or greater (see Table 3-1 for description of the Saffir-Simpson Intensity (SSI) scale) which have made landfall in the state of Florida. Going back further, written descriptions of storms are available, but it becomes increasingly difficult to estimate actual storm intensities and track locations in a reliable manner consistent with the later data. For this reason all hypothetical storms used in this analysis, as well as their corresponding frequencies, have been based only on hurricanes that have occurred since 1900. The analysis did not include sub-hurricane (wind speed less than 74 MPH) or other severe weather phenomena such as tornadoes, thunderstorms, hail, or winter storms.

Since the historical record is too sparse to simply extrapolate future hurricane landfall probabilities, a series of hypothetical storms was generated in the USWIND<sup>TM</sup> probabilistic storm database, essentially "filling in" the gaps in the historical data. This provides an estimate of future potential storm locations (landfall), track, severity and frequency consistent with the observed historical data.

EQE developed its hurricane model, using the National Oceanic and Atmospheric Administration (NOAA) model as the base, to determine individual risk wind speeds. The NOAA model was designed to model only a few specific-types of storms. While the eye of the hurricane follows the selected track, the EQE model uses up to a dozen different storm parameters to estimate wind speeds at all distances away from the eye.

The hurricane intensities used for the analyses conform to basic NOAA information regarding hurricane intensity recurrence relationships corresponding to locations along the coast. Much of FPC's service territory includes the western Florida coastal area where some of these hurricanes have made landfall. If they were to re-occur, these storms would cause significant amounts of damage to FPC's T & D assets.



The Pinellas County region is in the highest risk region of Florida Power Corporation's service territory due to the its coastal location combined with the population concentration compared to the other parts of the service territory.

Table 3-1

THE SAFFIR-SIMPSON INTENSITY (SSI) SCALE
(NOTE THAT WINDSPEEDS GIVEN ARE 1-MINUTE SUSTAINED)

Saffir- Simpson Intensity (SSI)	Central Pressure (mb)	Maximum Sustained Winds (mph)	Storm- Surge Height (ft)	Damage
1	≥ 980	74-95	4-5	Damage mainly to trees, shrubbery, and unanchored mobile homes
2	965-979	96-110	_ 6-8	Some trees blown down; major damage to exposed mobile homes; some damage to roofs of buildings
3	945-964	111-130	9-12	Foliage removed from trees; large trees blown down; mobile homes destroyed; some structural damage to small buildings
4	920-944	131-155	13-18	All signs blown down; extensive damage to roofs, windows, and doors; complete destruction of mobile homes; flooding inland as far as 6 mi.; major damage to lower floors of structures near shore
5	< 920	> 155	> 18	Severe damage to windows and doors; extensive damage to roofs of homes and industrial buildings; small buildings overturned and blown away; major damage to lower floors of all structures less than 15 ft. above sea level within 500m of shore



## 4. Asset Vulnerabilities

Aerial transmission and distribution lines and structures have suffered damage in past hurricanes. Damage patterns tend to be most severe in coastal areas due to a combination of wind and storm surge. Underground distribution lines have also been subject to storm damage. Damage to inland aerial lifelines tends to be less severe with greater contributions to damage from wind-borne debris. The types of wind-borne debris can include tree and tree limbs, and roofing materials as well as structure debris at higher wind speeds.

FPC aerial transmission and distribution structures are designed to sustain design-level hurricane winds. These design criteria specify design wind speeds for transmission structures and lines. Distribution poles are assumed to have uniform design capacities for the entire service territory.

Vulnerabilities were developed using FPC-provided data on historical hurricane damage experience, FPC design standards, and engineering judgments of the relative performance of the structures and material types.



### 5. Summary of Portfolio Analysis

EQE analyzed the FPC portfolio of transmission and distribution (T & D) assets subject to a suite of probabilistic storms and a series of scenario storms using the proprietary computer program, USWIND<sup>TM</sup>. The probabilistic storm analyses provide non-exceedance probabilities over a range of loss levels while the scenario landfall storm series provides a damage distribution for selected storms at landfalls within FPC's service territory. A brief discussion of benchmark studies is also presented since it provides estimates of FPC losses from two recent storms

### 5.1 Probabilistic Analysis

The probabilistic loss analysis is performed using USWIND<sup>TM</sup>. The hurricane hazard uses the USWIND<sup>TM</sup> probabilistic database which models the coastline in 10 mile segments and models more than 1,500 hypothetical storms for each segment. The net result is a stochastic storm database of more than 500,000 events that represents possible hurricanes affecting the eastern United States, along both the Gulf and the Atlantic coasts. Each hurricane in the database has been defined by associating a central pressure with a unique storm track. In addition, each hurricane is assigned an annual frequency of occurrence, which depends on the storm track location and the storm intensity as measured by central pressure.

For each location in the portfolio, the wind speed is calculated, and based on the type of asset, the degree of damage is estimated. The result for each asset location is an estimate of the mean damage and associated uncertainty. Total portfolio damage, defined as expected (mean) damage, is the sum of the individual property's damage. Uncertainty of an individual asset's damage is calculated to determine the total portfolio damage uncertainty, taking into account correlation between assets. Knowledge of the total portfolio damage probabilistic distribution permits estimation of total portfolio damage with varying probability levels.



Given the annual frequency and the portfolio loss for each event, a probabilistic database of losses is developed. By manipulating this database, various loss exceedance or non-exceedance distributions are generated.

#### Aggregate Damage Exceedance for One, Three, and Five Years

Aggregate damage exceedance calculations are developed by keeping a running total of damage from *all possible events* in a given time period. At the end of each time period, the aggregate damage for all events is then determined by probabilistically summing the damage distribution from each event, taking into account the event frequency. The process considers the probability of having zero events, one event, two events, etc. during the time period.

A series of probabilistic analyses were performed, using the vulnerability curves derived for FPC assets and the computer program USWIND<sup>TM</sup>. A summary of the analysis is presented in Table 5-1, which shows the aggregate damage (i.e. deductible is "0") exceedance probability for three time periods: one, three and five years for damage layers between zero and over one billion dollars.

For each damage layer shown, the probability of damage exceeding a specified value is shown. For example, the probability of damage exceeding \$100 million in one year is 1.7%, while it is 5.6% and 10.4% for a three and five year period. The analysis calculates the probability of damage from all storms and aggregates the total, resulting in increasing exceedance probabilities for the three and five year periods when compared to the one year value.

Table 5-1 also shows, for each damage layer, the contribution of that layer to the expected annual damage of \$ 8.4 million, which is the annual damage calculated from all storms with varying severity and frequency. The expected annual damage represents the damage to T & D assets on an annual basis over a long period of time.

For the example given above, the contribution to the \$8.4 million expected annual damage in the \$100 to \$125 million layer is \$446 million for the one-year period. For the three and five year periods, the values are \$504 and \$560 million, respectively.



Table 5-1

# FPC T & D ASSETS AGGREGATE DAMAGE EXCEEDANCE PROBABILITIES AND EXPECTED ANNUAL DAMAGE BY LAYER

Damage Layer	1 year		3 у	rear	5 ye	ar
(\$millions)	Exceedance Probability	Expected Annual Damage (\$000)	Exceedance Probability	Expected Annual Damage (\$000)	Exceedance Probability	Expected Annual Damage (\$000)
0 (≥.5)	33.8%	1,979	71.2%	1,411	87.5%	973
25	7.4%	1,314	23.8%	1,350	40.2%	1,269
50	3.6%	807	12.3%	909	22.4%	966
75	2.3%	-558	7.9%	645	14.5%	718
100	1.7%	446	5.6%	504	10.4%	560
125	1.3%	391	4.3%	429	7.8%	470
150	1.0%	351	3.3%	380	6.1%	412
175	0.8%	321	2.6%	346	4.9%	372
200	0.6%	284	2.1%	309	3.9%	334
225	0.5%	238	1.6%	266	3.1%	293
250	0.4%	225	1.3%	224	2.5%	250
All Else	0.3%	1,507	1.0%	1,648	2.0%	1,805
Total		8,420		8,420		8,420

Aggregate Loss Exceedance for One, Three, and Five Years

For insurance/risk transfer purposes, the above analyses were also performed with varying deductibles or attachment levels, which permits an insurer to assess the amount of loss (i.e. damage less deductible) they are exposed to.

The FPC "portfolio" consists of only one policy with a single aggregate deductible, as contrasted with a typical large insurance portfolio with multiple policies with the same deductible. Because of the single aggregate deductible, Table 5-1 above can also be used to estimate the loss to insurers on a layer basis. For example, assuming an



insurer offered a one year policy \$50 xs \$100 million, its probability of losses penetrating the \$100 million layer would be 1.7% and the probability of the layer being exhausted would be 1.0%. Similarly, the expected annual loss for this layer is the sum of \$446 thousand and \$391 thousand or \$837 thousand. The three and five year values would be derived in a similar manner.

### Per Occurrence Damage and Loss Exceedance for One, Three, and Five Years

Another approach to quantify losses is to calculate the damage for each time period from the *single largest and most likely event*, and apply the deductible to that event to calculate the loss. This is called a per-occurrence exceedance curve. The exceedance curve considers the possibility that damage/losses may be from any event in the probabilistic storm database. Because it includes effects from only the largest event, the per occurrence probabilities are always less than the aggregate probabilities. The amount of difference between the two cases indicates the damage and loss contributions from more than one event in any given period. This can provide additional insight into the risk associated with a second event. For the FPC's portfolio, the one year per occurrence probabilities are approximately 98% to100% of the aggregate probabilities, indicating that most of the risk of damage and loss is associated with one major storm as opposed to two or more storms for a given period.

#### 5.2 Landfall Analyses for SSI Ranges

In order to provide further insight into FPC's risk profile, scenario landfall storms were analyzed for four storm intensities. The storm series are located along the full length of the Florida coastline. The landfall locations were between mile posts 850 to 1390, the west coast of Florida and mile posts 1400 to 1800, the east coast of Florida. See Figure 5-1 for a map of Florida showing the landfall locations. These mile posts extend from Escambia County in the north-west to Monroe county in the south and from Dade county in the south to Duval County in the north east at approximately 10-mile intervals. The selected storm tracks were based on the USWIND<sup>TM</sup> landfall series storm tracks, which represent the most likely landfall azimuth and track for each landfall point.



The five storm intensities were mid-range SSI 2, 3, 4 and 5 storms as defined by their minimum barometric pressures. The pressures were 973, 956, 933 and 903 millibars, respectively for each storm.

The damage for each 'set' of one storm intensity and landfall locations were converted into bar charts for display. Damage for these storms are in the following ranges for SSI 2-5 storms making landfall between milepost 1050-Jefferson to 1270-Charlotte and 1490-Dade to 1720-Volusia:

Storm Intensity	Damage Range (\$M) West Coast Landfalls (Milepost 1050 to 1270)	Damage Range (\$M) East Coast Landfalls (Milepost 1490 to 1720)
SSI 2	\$6 to \$98	\$9 to \$28
SSI 3	\$13 to \$277	\$14. to \$54
SSI 4	\$38 to \$689	\$29 to \$155
SSI 5	\$58 to \$734	\$35 to \$400

Figures 5-2 through 5-5 provide bar charts illustrating the distribution of mean damage for SSI 2-5 storms making landfall between milepost 850 to 1800.

#### 5.3 Benchmark Studies

Several hurricane benchmark studies were performed to calibrate and validate the T & D vulnerability functions and hurricane model. Storm data and losses from two recent storms that affected FPC service areas were utilized. These include Hurricane Erin (1995) and Hurricane Floyd (1999). The FPC asset portfolio was analyzed for these historic storms using USWIND<sup>TM</sup>, and the results are compared against reported FPC losses in Table 5-2 below. The historic storm simulations allow calibration of the model to forecast restoration and repair costs to damaged FPC system assets. These costs typically include the cost of damaged capital plant and equipment as well as payroll, associated vehicle, inventory, and support costs for the restoration efforts. Repair and restoration costs are typically much greater than normal replacement values.



These storms are important benchmarks because they are relatively recent, having occurred in the last five years. Although FPC is constantly expanding its service areas, and possibly changing design and construction practices, the model portfolio as of mid-1999 is believed to be a reasonable representation of FPC assets over the last five years. Moreover, relatively "good" exposure and claims data are available for these storms. The comparisons between simulated losses and FPC historic losses show reasonable correlation for the storm simulations with SSI intensities of 2, and 4 and provide a relevant measure of the model's validity.

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COMPARISON OF EQE HISTORIC LOSS SIMULATION WITH

Table 5-2

# FPC HISTORIC HURRICANE LOSSES (DOLLARS IN THOUSANDS)

Simulation <sup>(1)</sup> Losses	Erin 1995	Floyd 1999
Distribution	\$4,045	\$2,389
Transmission	58	3
Total	\$4,104	\$2,392
FPC Actual Losses	\$4,146	\$2,500 <sup>(2)</sup>
Relative Difference	-1%	-4%

Note 1: All analyses were done using the 1999 values. No adjustments were made for asset inflation or system expansion.

Preliminary loss estimates.

Note 2:



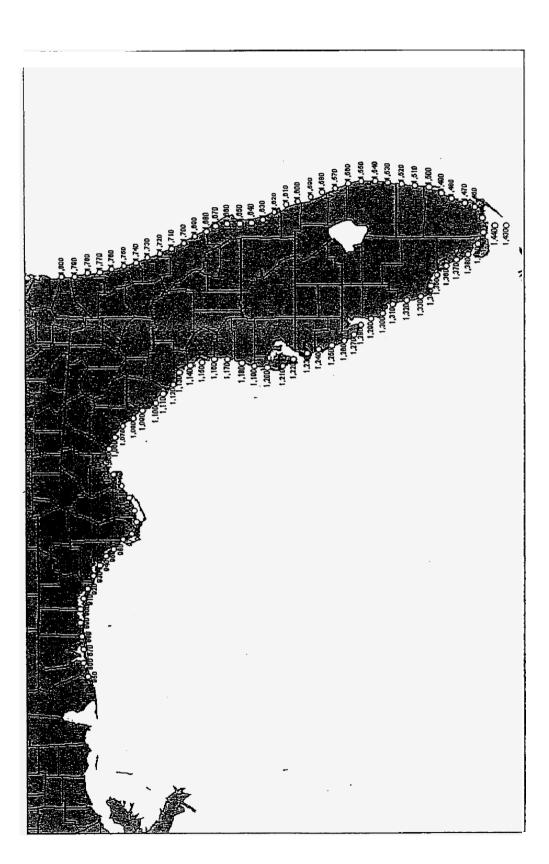


Figure 5-1: Scenario Storm Landfall Mile Posts

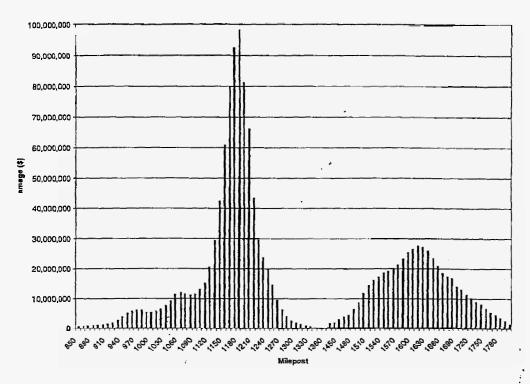


Figure 5-2: Mean Damage from SSI 2 Landfalls

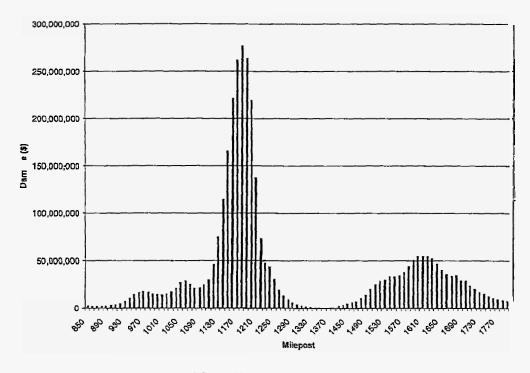


Figure 5-3: Mean Damage from SSI 3 Landfalls



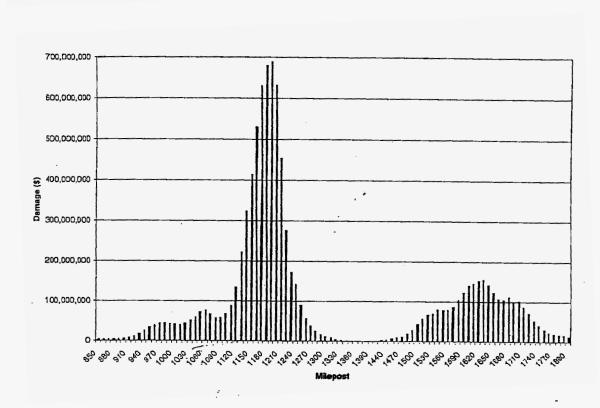


Figure 5-4: Mean Damage from SSI 4 Landfalls

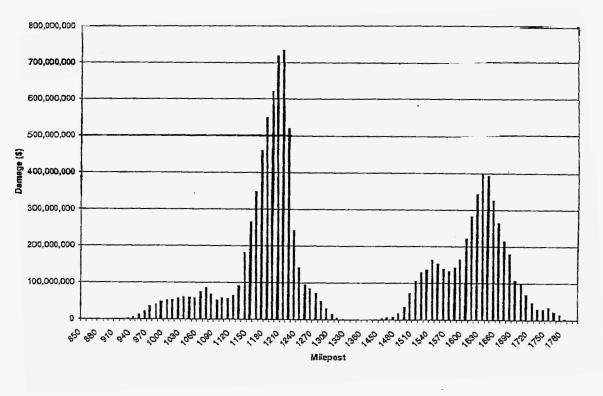


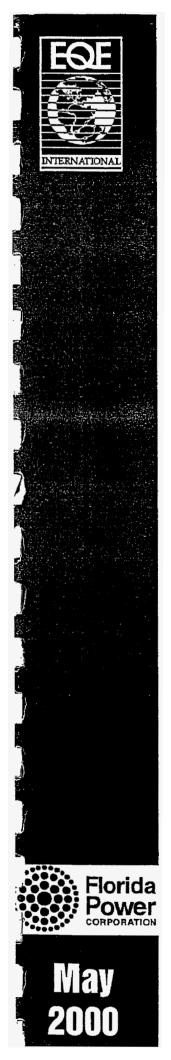
Figure 5-5: Mean Damage from SSI 5 Landfalls



# 6. References

 EQECAT Report "Florida Commission on Hurricane Loss Projection Methodology." July, 1997.





# **Florida Power Corporation**

**Transmission and Distribution Assets** 

# Hurricane Risk Profile Memorandum

PEF-SR-09821

Prepared by: EQE International, Inc.

### **DISCLAIMER**

THE RECIPIENT OF THIS CONFIDENTIAL "RISK PROFILE MEMORANDUM" RECOGNIZES THE INHERENT RISKS THAT ARE ATTENDANT WITH THE RISK ANALYSIS WHICH IS THE SUBJECT OF THIS MEMORANDUM. IN PERFORMING ITS PROFESSIONAL SERVICES, EQE INTERNATIONAL, INC. (EQE) HAS PERFORMED IN A WORKMANLIKE MANNER CONSISTENT WITH INDUSTRY STANDARDS.

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### Risk Profile

The following is a summary description of a confidential risk analysis performed for Florida Power Corporation, and is intended to be used solely by insurers, reinsurers, or other financial intermediaries in regard to providing catastrophic risk transfer coverage.

INSURED	Florida Power Corporation			
ASSETS	Transmission and Distribution (T & D) System consisting of: Transmission towers, and conductors; Distribution poles, transformers, conductors, lighting and other miscellaneous assets			
LOCATION	All T & D asse	ts located within Stat	e of Florida	
ASSET VALUE	Normal replacement value is approximately \$ 3.6 billion, of which approximately 30% is transmission and 70% is distribution			
LOSS PERIL	Hurrica	ne Windstorm (SSI 1	to 5)	
EXPECTED ANNUAL DAMAGE	\$ 8.4 million			
1% AGGREGATE DAMAGE EXCEEDANCE VALUE	\$150 million (one year)			
\$25 million	7.4% 23.9% 40.2%			
\$50 million				
\$150 million				
\$200 million	0.6% 2.1% 3.9%			



### 1. Memorandum Summary

Florida Power Corporation's (FPC) transmission and distribution (T & D) systems are exposed to and in the past have sustained damage from hurricanes. The exposure of these assets to hurricane damage is described and potential losses are quantified in this memorandum. Loss analyses were performed by EQE International, using an advanced computer model simulation program USWIND ™developed by EQE. All results which are presented here have been calculated using USWIND and the FPC T & D asset portfolio.

The hurricane exposure is analyzed from both a scenario approach, which models specific storm characteristics, and a probabilistic approach, which considers the full range of potential storm characteristics and corresponding losses. Scenario analysis produce expected or most likely damage amounts resulting from defined storms. Probabilistic analyses identify the probability of damage exceeding a specific dollar amount. Damage is defined as the cost associated with repair and/or replacement of T & D assets necessary to promptly restore service in a post hurricane environment. This cost is typically larger than the costs associated with scheduled repair and replacement programs.

Factors considered in the analysis include the location of FPC's overhead and underground T & D assets, the probability of hurricanes of different intensities and/or landfall points impacting those assets, the vulnerability of those assets to storm damage, and the costs to repair assets and restore electrical service. The computer model simulations were benchmarked to loss data from FPC in the recent hurricanes Erin, and Floyd.

### Loss Estimation Methodology

The basic components of the hurricane risk analysis include:

Assets at risk: define and locate



- Hurricane hazard: apply probabilistic storm model for the region
- Asset vulnerabilities: severity (wind speed) versus damage
- Portfolio Analysis: probabilistic analysis -damage/ loss

These are analysis components are summarized herein.



### 2. Assets at Risk

FPC's Transmission and Distribution (T & D) System assets consist of:Transmission towers, and conductors; Distribution poles, transformers, conductors, lighting and other miscellaneous assets. The total normal replacement value of these assets is approximately \$ 3.6 billion, 30% of which is transmission and 70% distribution. Normal replacement value is the cost of replacing the assets under normal non-catastrophe conditions. The following table shows the percent distribution of T & D values and the amount above/below ground, since vulnerability to loss is substantially different for each category.

FPC TRANSMISSION AND DISTRIBUTION ASSET VALUES (%)

	TRANSMISSION	DISTRIBUTION	TOTAL
TOTAL	30%	70%	100%

FPC's Transmission and Distribution assets are distributed unevenly across their service territory, encompassing a large portion of the state of Florida. Tables 2-1 and 2-2 show the values within Florida for the counties that make up approximately 90% the total distribution and transmission assets, indicating a concentration of values in the central portion of the state. Figure 2-1 shows a map of FPC's transmission system while Figure 2-2 shows a map of the distribution asset value density by zip code.



Table 2-1

DISTRIBUTION VALUES BY COUNTY, LARGEST COUNTIES

County (major city)	Value (\$Millions)
Pinellas (St. Petersburg)	\$666.7
Orange (Oriando)	\$422.2
Seminole	\$198.4
Polk (Lakeland)	\$161.7
Pasco	\$155.4
Marion (Ocala)	\$126.8
Lake	\$114.4
Volusia (Daytona Beach)	\$112.6
Citrus	\$106.1
Highlands	\$102.3
Osceola	\$ 64.3
Sumter	\$ 44.5
Franklin	\$ 24.6
19 Other Counties	\$198.9
Total	\$2,531.1

Table 2-2
TRANSMISSION VALUES BY COUNTY, LARGEST COUNTIES

County (major city)	Value (\$Millions)		
Sumter	\$629.2		
Polk (Lakeland)	\$ 31.5		
Wakulla	\$ 24.9		
Gadsden	\$ 24.6		
Hillsborough	\$ 23.7		
Leon (Tallahassee)	\$ 23.2		
Alachua (Gainsville)	\$ 21.6		
Madison	\$ 21.5		
Marion (Ocala)	\$ 20.6		
Highlands	\$ 20.6		
Bay	\$ 19.9		
Osceola	\$ 19.8		
Orange (Orlando)	\$ 18.5		
Levy	\$ 18.3		
Liberty	\$ 16.9		
Volusia (Daytona Beach)	\$ 14.2		
Lake	\$ 1,4.1		
Dixie	\$ 13.4		
Jefferson	\$ 13.4		
14 Other Counties	\$111.2		
Total	\$1,100.9		





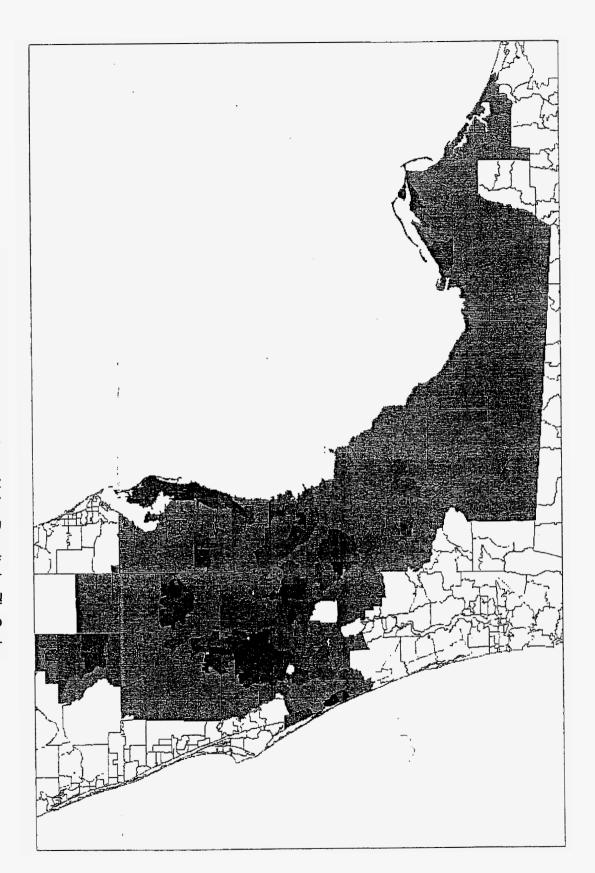


Figure 2-1: FPC Distribution Asset Value Density by Zip Code

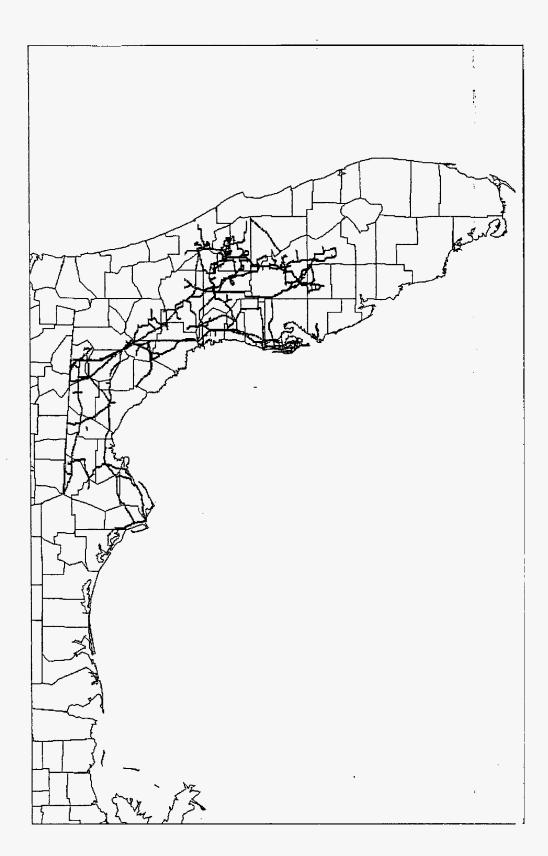


Figure 2-2: FPC Transmission System



# 3. Hurricane Hazard in Florida

The historical record for hurricanes on the Gulf and Atlantic coasts of the United States consists of approximately 100 years for which reasonably accurate information is available. For example, since 1900, there have been 57 hurricanes SSI 1 or greater (see Table 3-1 for description of the Saffir-Simpson Intensity (SSI) scale) which have made landfall in the state of Florida. Going back further, written descriptions of storms are available, but it becomes increasingly difficult to estimate actual storm intensities and track locations in a reliable manner consistent with the later data. For this reason all hypothetical storms used in this analysis, as well as their corresponding frequencies, have been based only on hurricanes that have occurred since 1900. The analysis did not include sub-hurricane (wind speed less than 74 MPH) or other severe weather phenomena such as tornadoes, thunderstorms, hail, or winter storms.

Since the historical record is too sparse to simply extrapolate future hurricane landfall probabilities, a series of hypothetical storms was generated in the USWIND<sup>TM</sup> probabilistic storm database, essentially "filling in" the gaps in the historical data. This provides an estimate of future potential storm locations (landfall), track, severity and frequency consistent with the observed historical data.

EQE developed its hurricane model, using the National Oceanic and Atmospheric Administration (NOAA) model as the base, to determine individual risk wind speeds. The NOAA model was designed to model only a few specific types of storms. While the eye of the hurricane follows the selected track, the EQE model uses up to a dozen different storm parameters to estimate wind speeds at all distances away from the eye.

The hurricane intensities used for the analyses conform to basic NOAA information regarding hurricane intensity recurrence relationships corresponding to locations along the coast. Much of FPC's service territory includes the western Florida coastal area where some of these hurricanes have made landfall. If they were to re-occur, these storms would cause significant amounts of damage to FPC's T & C assets.

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The Pinellas County region is in the highest risk region of Florida Power Corporation's service territory due to the its coastal location combined with the population concentration compared to the other parts of the service territory.

Table 3-1

THE SAFFIR-SIMPSON INTENSITY (SSI) SCALE (NOTE THAT WINDSPEEDS GIVEN ARE 1-MINUTE SUSTAINED)

Saffir- Simpson Intensity (SSI)	Central Pressure (mb)	Maximum Sustained Winds (mph)	Storm- Surge Height (ft)	Damage
1	≥ 980	74-95	4-5	Damage mainly to trees, shrubbery, and unanchored mobile homes
2	965-979	96-110	<sup>-</sup> 6-8	Some trees blown down; major damage to exposed mobile homes; some damage to roofs of buildings
3	945-964	111-130	9-12	Foliage removed from trees; large trees blown down; mobile homes destroyed; some structural damage to small buildings
4	920-944	131-155	13-18	All signs blown down; extensive damage to roofs, windows, and doors; complete destruction of mobile homes; flooding inland as far as 6 mi.; major damage to lower floors of structures near shore
5	< 920	> 155	> 18	Severe damage to windows and doors; extensive damage to roofs of homes and industrial buildings; small buildings overturned and blown away; major damage to lower floors of all structures less than 15 ft. above sea level within 500m of shore



# 4. Asset Vulnerabilities

Aerial transmission and distribution lines and structures have suffered damage in past hurricanes. Damage patterns tend to be most severe in coastal areas due to a combination of wind and storm surge. Underground distribution lines have also been subject to storm damage. Damage to inland aerial lifelines tends to be less severe with greater contributions to damage from wind-borne debris. The types of wind-borne debris can include tree and tree limbs, and roofing materials as well as structure debris at higher wind speeds.

FPC aerial transmission and distribution structures are designed to sustain design-level hurricane winds. These design criteria specify design wind speeds for transmission structures and lines. Distribution poles are assumed to have uniform design capacities for the entire service territory.

Vulnerabilities were developed using FPC-provided data on historical hurricane damage experience, FPC design standards, and engineering judgments of the relative performance of the structures and material types.



# 5. Summary of Portfolio Analysis

EQE analyzed the FPC portfolio of transmission and distribution (T & D) assets subject to a suite of probabilistic storms and a series of scenario storms using the proprietary computer program, USWIND<sup>TM</sup>. The probabilistic storm analyses provide non-exceedance probabilities over a range of loss levels while the scenario landfall storm series provides a damage distribution for selected storms at landfalls within FPC's service territory. A brief discussion of benchmark studies is also presented since it provides estimates of FPC losses from two recent storms

# 5.1 Probabilistic Analysis

The probabilistic loss analysis is performed using USWIND<sup>TM</sup>. The hurricane hazard uses the USWIND<sup>TM</sup> probabilistic database which models the coastline in 10 mile segments and models more than 1,500 hypothetical storms for each segment. The net result is a stochastic storm database of more than 500,000 events that represents possible hurricanes affecting the eastern United States, along both the Gulf and the Atlantic coasts. Each hurricane in the database has been defined by associating a central pressure with a unique storm track. In addition, each hurricane is assigned an annual frequency of occurrence, which depends on the storm track location and the storm intensity as measured by central pressure.

For each location in the portfolio, the wind speed is calculated, and based on the type of asset, the degree of damage is estimated. The result for each asset location is an estimate of the mean damage and associated uncertainty. Total portfolio damage, defined as expected (mean) damage, is the sum of the individual property's damage. Uncertainty of an individual asset's damage is calculated to determine the total portfolio damage uncertainty, taking into account correlation between assets. Knowledge of the total portfolio damage probabilistic distribution permits estimation of total portfolio damage with varying probability levels.



Given the annual frequency and the portfolio loss for each event, a probabilistic database of losses is developed. By manipulating this database, various loss exceedance or non-exceedance distributions are generated.

# Aggregate Damage Exceedance for One, Three, and Five Years

Aggregate damage exceedance calculations are developed by keeping a running total of damage from *all possible events* in a given time period. At the end of each time period, the aggregate damage for all events is then determined by probabilistically summing the damage distribution from each event, taking into account the event frequency. The process considers the probability of having zero events, one event, two events, etc. during the time period.

A series of probabilistic analyses were performed, using the vulnerability curves derived for FPC assets and the computer program USWIND<sup>™</sup>. A summary of the analysis is presented in Table 5-1, which shows the aggregate damage (i.e. deductible is "0") exceedance probability for three time periods: one, three and five years for damage layers between zero and over one billion dollars.

For each damage layer shown, the probability of damage exceeding a specified value is shown. For example, the probability of damage exceeding \$100 million in one year is 1.7%, while it is 5.6% and 10.4% for a three and five year period. The analysis calculates the probability of damage from all storms and aggregates the total, resulting in increasing exceedance probabilities for the three and five year periods when compared to the one year value.

Table 5-1 also shows, for each damage layer, the contribution of that layer to the expected annual damage of \$ 8.4 million, which is the annual damage calculated from all storms with varying severity and frequency. The expected annual damage represents the damage to T & D assets on an annual basis over a long period of time.

For the example given above, the contribution to the \$8.4 million expected annual damage in the \$100 to \$125 million layer is \$446 million for the one-year period. For the three and five year periods, the values are \$504 and \$560 million, respectively.



Table 5-1

# FPC T & D ASSETS AGGREGATE DAMAGE EXCEEDANCE PROBABILITIES AND EXPECTED ANNUAL DAMAGE BY LAYER

Damage Layer	1 year		3 year		5 year		
(\$millions)	Exceedance Probability	Expected Annual Damage (\$000)	Exceedance Probability	Expected Annual Damage (\$000)	Exceedance Probability	Expected Annual Damage (\$000)	
0 (≥.5)	33.8%	1,979	71.2%	1,411	87.5%	973	
25	7.4%	1,314	23.8%	1,350	40.2%	1,269	
50	3.6%	807	12.3%	909	22.4%	966	
75	2.3%	558	7.9%	645	14.5%	718	
100	1.7%	446	5.6%	504	10.4%	560	
125	1.3%	391 -	4.3%	429	7.8%	470	
150	1.0%	351	3.3%	380	6.1%	412	
175	0.8%	321	2.6%	346	4.9%	372	
200	0.6%	284	2.1%	309	3.9%	334	
225	0.5%	238	1.6%	266	3.1%	293	
250	0.4%	225	1.3%	224	2.5%	250	
All Else	0.3%	1,507	1.0%	1,648	2.0%	1,805	
Total		8,420	*	8,420		8,420	

# Aggregate Loss Exceedance for One, Three, and Five Years

For insurance/risk transfer purposes, the above analyses were also performed with varying deductibles or attachment levels, which permits an insurer to assess the amount of loss (i.e. damage less deductible) they are exposed to.

The FPC "portfolio" consists of only one policy with a single aggregate deductible, as contrasted with a typical large insurance portfolio with multiple policies with the same deductible. Because of the single aggregate deductible, Table 5-1 above can also be used to estimate the loss to insurers on a layer basis. For example, assuming an



insurer offered a one year policy \$50 xs \$100 million, its probability of losses penetrating the \$100 million layer would be 1.7% and the probability of the layer being exhausted would be 1.0%. Similarly, the expected annual loss for this layer is the sum of \$446 thousand and \$391 thousand or \$837 thousand. The three and five year values would be derived in a similar manner.

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## Per Occurrence Damage and Loss Exceedance for One, Three, and Five Years

Another approach to quantify losses is to calculate the damage for each time period from the *single largest and most likely event*, and apply the deductible to that event to calculate the loss. This is called a per-occurrence exceedance curve. The exceedance curve considers the possibility that damage/losses may be from any event in the probabilistic storm database. Because it includes effects from only the largest event, the per occurrence probabilities are always less than the aggregate probabilities. The amount of difference between the two cases indicates the damage and loss contributions from more than one event in any given period. This can provide additional insight into the risk associated with a second event. For the FPC's portfolio, the one year per occurrence probabilities are approximately 98% to 100% of the aggregate probabilities, indicating that most of the risk of damage and loss is associated with one major storm as opposed to two or more storms for a given period.

# 5.2 Landfall Analyses for SSI Ranges

In order to provide further insight into FPC's risk profile, scenario landfall storms were analyzed for four storm intensities. The storm series are located along the full length of the Florida coastline. The landfall locations were between mile posts 850 to 1390, the west coast of Florida and mile posts 1400 to 1800, the east coast of Florida. See Figure 5-1 for a map of Florida showing the landfall locations. These mile posts extend from Escambia County in the north-west to Monroe county in the south and from Dade county in the south to Duval County in the north east at approximately 10-mile intervals. The selected storm tracks were based on the USWIND<sup>TM</sup> landfall series storm tracks, which represent the most likely landfall azimuth and track for each landfall point.



The five storm intensities were mid-range SSI 2, 3, 4 and 5 storms as defined by their minimum barometric pressures. The pressures were 973, 956, 933, and 903 millibars, respectively for each storm.

The damage for each 'set' of one storm intensity and landfall locations were converted into bar charts for display. Damage for these storms are in the following ranges for SSI 2-5 storms making landfall between milepost 1050-Jefferson to 1270-Charlotte and 1490-Dade to 1720-Volusia:

Storm Intensity	Damage Range (\$M) West Coast Landfalls (Milepost 1050 to 1270)	Damage Range (\$M) East Coast Landfalls (Milepost 1490 to 1720)
SSI 2	\$6 to \$98	\$9 to \$28
SSI 3	\$13 to \$277	\$14 to \$54
SSI 4	\$38 to \$689	\$29 to \$155
SSI 5	\$58 to \$734	\$35 to \$400

Figures 5-2 through 5-5 provide bar charts illustrating the distribution of mean damage for SSI 2-5 storms making landfall between milepost 850 to 1800.

## 5.3 Benchmark Studies

Several hurricane benchmark studies were performed to calibrate and validate the T & D vulnerability functions and hurricane model. Storm data and losses from two recent storms that affected FPC service areas were utilized. These include Hurricane Erin (1995) and Hurricane Floyd (1999). The FPC asset portfolio was analyzed for these historic storms using USWIND<sup>TM</sup>, and the results are compared against reported FPC losses in Table 5-2 below. The historic storm simulations allow calibration of the model to forecast restoration and repair costs to damaged FPC system assets. These costs typically include the cost of damaged capital plant and equipment as well as payroll, associated vehicle, inventory, and support costs for the restoration efforts. Repair and restoration costs are typically much greater than normal replacement values.



These storms are important benchmarks because they are relatively recent, having occurred in the last five years. Although FPC is constantly expanding its service areas, and possibly changing design and construction practices, the model portfolio as of mid-1999 is believed to be a reasonable representation of FPC assets over the last five years. Moreover, relatively "good" exposure and claims data are available for these storms. The comparisons between simulated losses and FPC historic losses show reasonable correlation for the storm simulations with SSI intensities of 2, and 4 and provide a relevant measure of the model's validity.

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Table 5-2

# COMPARISON OF EQE HISTORIC LOSS SIMULATION WITH FPC HISTORIC HURRICANE LOSSES (DOLLARS IN THOUSANDS)

Simulation <sup>(1)</sup> Losses	Erin 1995	Floyd 1999
Distribution	\$4,045	\$2,389
Transmission	58	3
Total	\$4,104	\$2,392
FPC Actual Losses	\$4,146	\$2,500 <sup>(2)</sup>
Relative Difference	-1%	-4%

Note 1: All analyses were done using the 1999 values. No adjustments were made for asset inflation or system expansion.

Note 2: Preliminary loss estimates.

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Figure 5-1: Scenario Storm Landfall Mile Posts

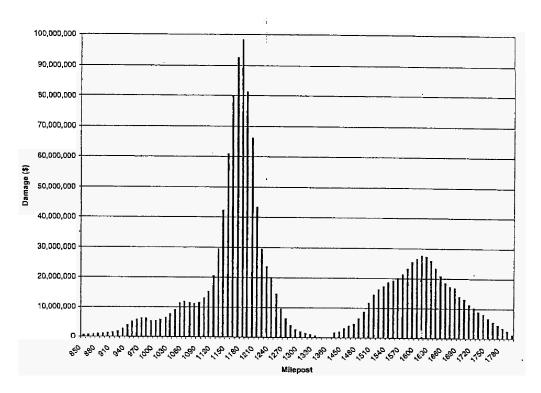


Figure 5-2: Mean Damage from SSI 2 Landfalls

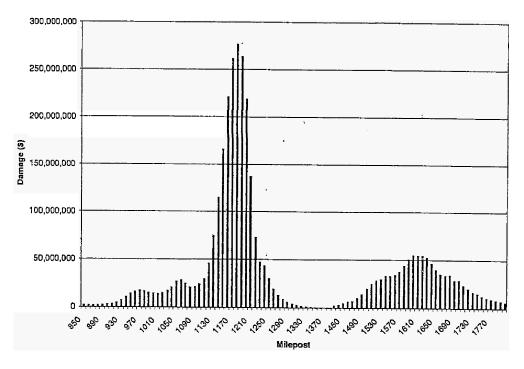


Figure 5-3: Mean Damage from SSI 3 Landfalls



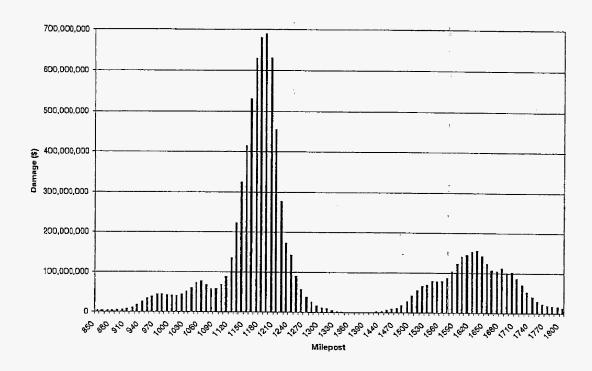


Figure 5-4: Mean Damage from SSI 4 Landfalls

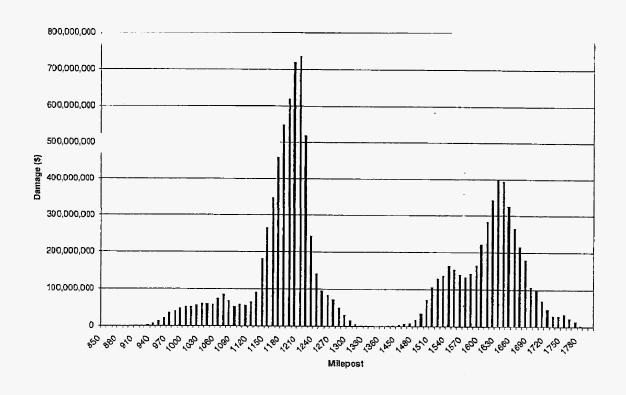


Figure 5-5: Mean Damage from SSI 5 Landfalls

# 6. References

 EQECAT Report "Florida Commission on Hurricane Loss Projection Methodology." July, 1997.



# Hurricane Risk Study Transmission and Distribution Assets

Presented to:

Florida Power Corporation

PEF-SR-09846

Presented by:

Steven Harris QE Internationa



# **Study Scope**

- Develop Loss Exceedance Curves.
  - Annual Occurrence Analyses
  - Aggregate Analyses
  - Multi-Year Aggregate Analyses
    - SSI Storms 1 through 5
- Scenario Storms SSI 2 through 5 Storms.

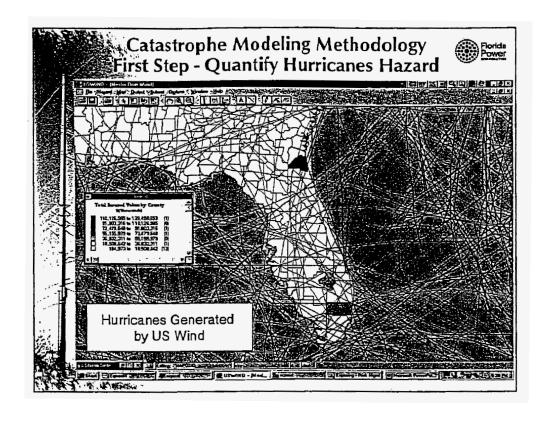




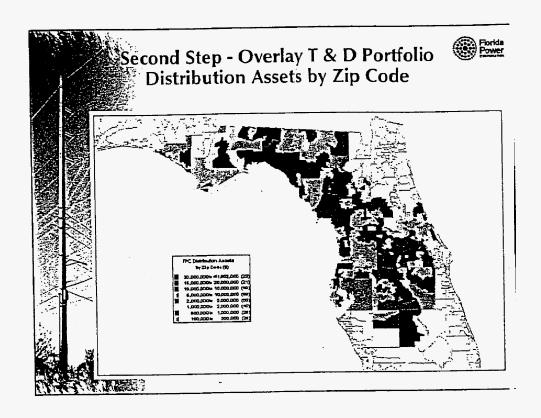
# Computer Modeling Methodology for Hurricane Losses

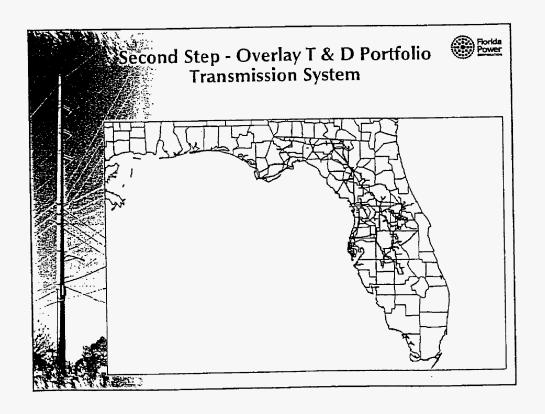
- 1. Quantify Hurricanes Hazard
- 2. Overlay T & D Portfolio
- 3. Determine Hurricane Severity
  - 4. Calculate Damage

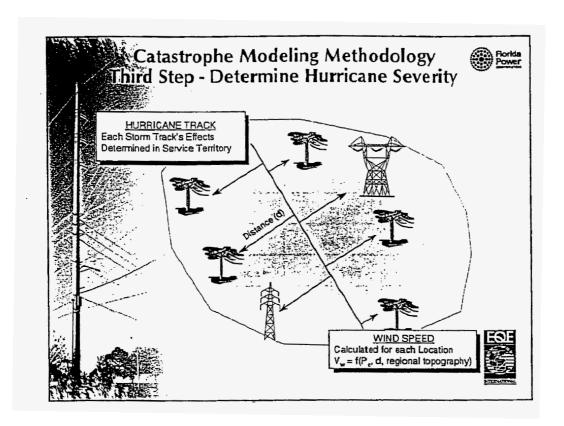


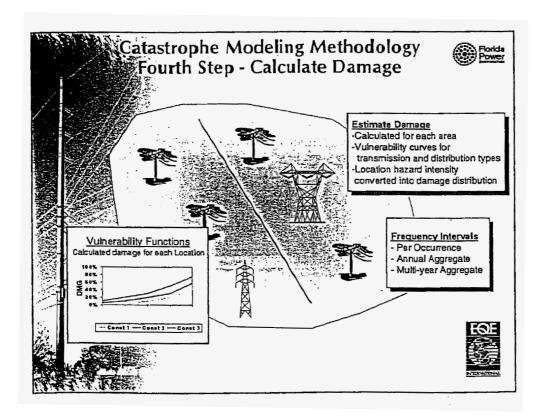


Saffir- Simpson Intensity (SSI)	Central Pressure (mb)	Maximum Sustained Winds (mph)	Storm- Surge Height (ft)	Damege
1	≥ 980	74-95	4-5	Damage mainly to trees, shrubbery, and manehored mobile homes
2	965-979	96-110	6-8	Some trees blown down; major damage to exposed mobile homes; some damage to roofs of buildings
3	945-964	111-130	9-12	Foliage removed from trees; large trees blown down; mobile homes destroyed; some structural damage to small buildings
4	920-944	131-155	13-18	All signs blown down; extensive damage t roofs, windows, and doors; complete destruction of mobile homes; flooding inland as far as 6 mi.; major damage to lower floors of structures near shore
5	< 920	>155	> 18	Severe damage to windows and doors; extensive damage to roofs of homes and industrial buildings; small buildings overturned and blown away; major damag to lower floors of all survures less than 1 ft, above sea level within 500m of shore

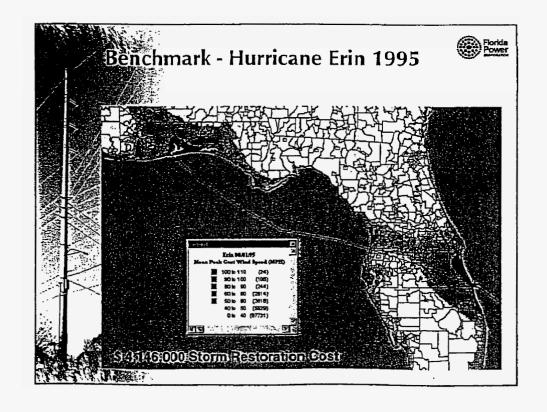


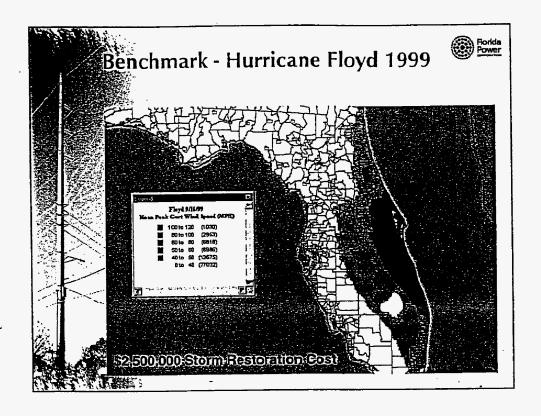


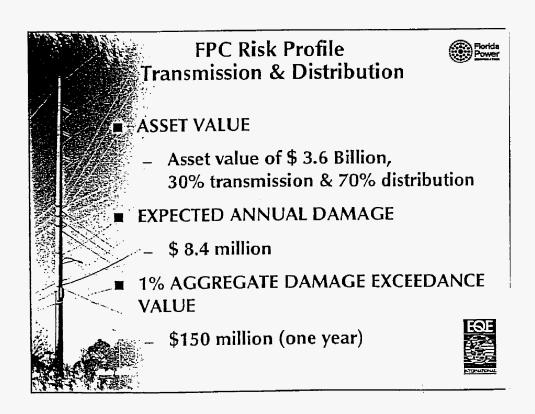


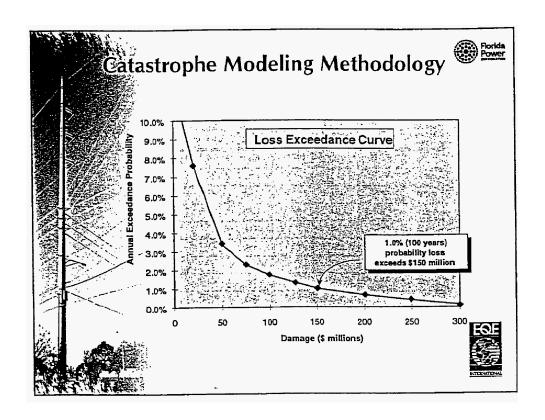


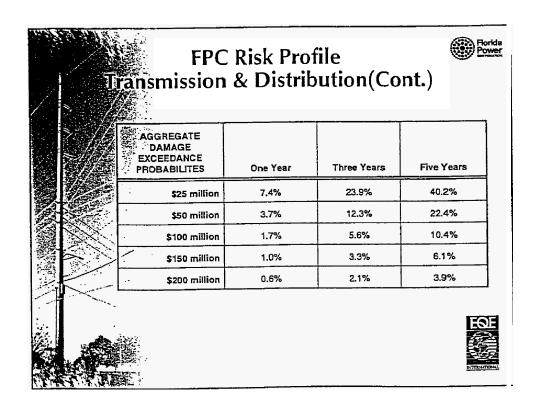
Simulation <sup>(1)</sup> Losses	Erin 1995	Floyd 199	
Distribution	\$4,045	\$2,389	
Transmission	58	3	
Total	\$4,104	\$2,392	
FPC Actual Losses	\$4,146	\$2,500 <sup>(2)</sup>	
Relative Difference	-1%	-4%	









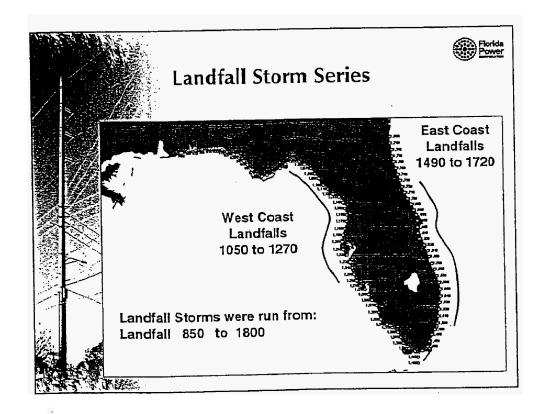


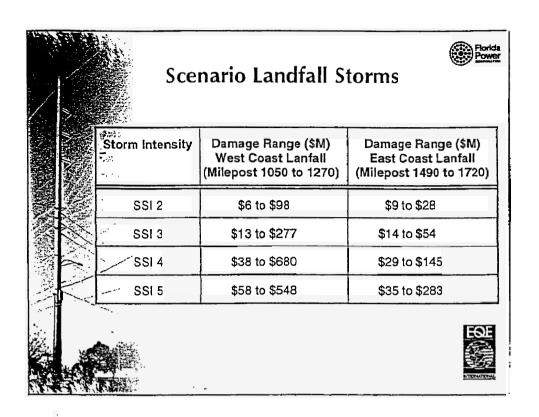
# Aggregate Damage Exceedance Probabilities

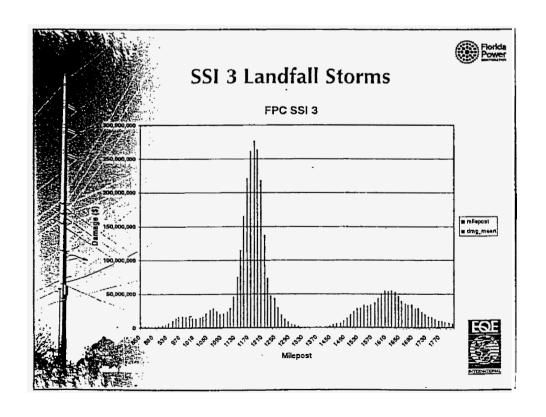


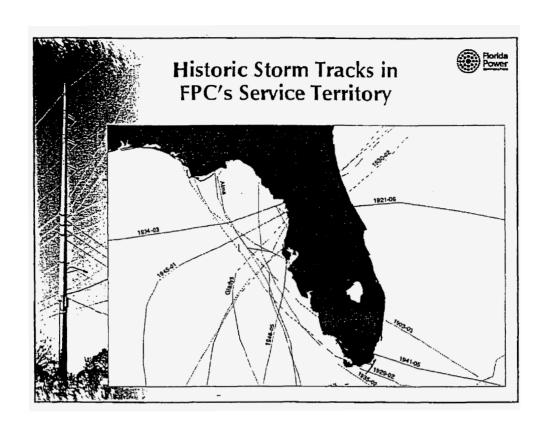
Damage Layer			3 year		5 уеаг	
(\$millions)	Exceedance Probability	Expected Annual Damage (\$000)	Exceedance Probability	Expected Annual Damage (S000)	Exceedance Probability	Expected Annual Damage (\$000)
0 (≥.5)	33.8%	1,979	71.2%	1,411	87.5%	973
25	7.4%	1,314	23.8%	1,350	40.2%	1,269
50	3.6%	B07	12.3%	909	22.4%	966
75	2.3%	558	7.9%	645	14.5%	718
100	1.7%	446	5.6%	5D4	10.4%	560
125	1.3%	391	4.3%	429	7.8%	470
150	1.0%	351	3.3%	380	6.1%	412
175	0.8%	321	2.6%	346	4.9%	372
200	0.6%	284	2.1%	309	3.9%	334
225	0.5%	238	1.6%	266	3.1%	293
250	0.4%	225	1.3%	224	2.5%	250
All Else	0.3%	1,507	1.0%	1,648	2.0%	1,80
Total		8,420		8,420		8,42

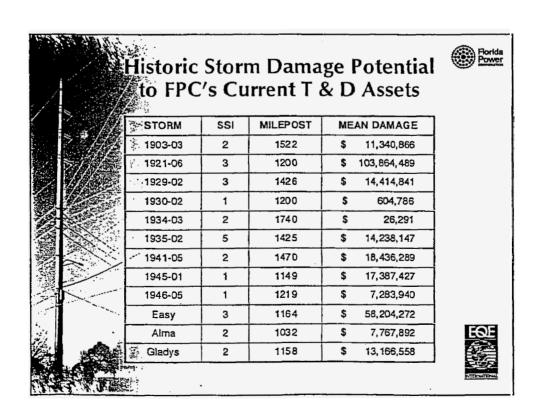


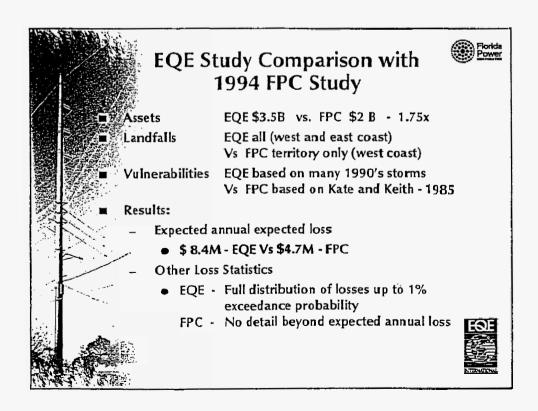












# **Conclusions**



- The last 50 years of Florida hurricane history has been less active than historical
- FPC has significant T&D exposure
- Asset concentrations exist for both east (Pinellas) and west (Orange) coast landfalls
- The probability of losses > \$25million is:

  7% per year

  24% in 3 years

  40% in 5 years



# KEDACTED

STREET VERY STREET FROM THE SOUR FLED FOR	Include Burdens	Yes Burdens:	Benefits	32.5%
			Exceptional Hours	15.9%
			Payroll Taxes	10.1%
S FROM PEC AND SERVICE COMPANY.		Ĺ		58.5%

Jan-04	Feb-04	Mar-04	Apr-04	Mav-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	2004 BUDGET
 8,322	8,322	8,322	8,599	8,599	8,599	12,894	8,599	8,599	8,599	8,599	12,905	110,961
126,155	126,155	126,155	129,344	129,344	129,344	193,752	129,344	129,344	129,344	129,344	193,881	1,671,507
120,324	120,324	120,324	124,192	124,192	124,192	186,185	124,192	124,192	124,192	124,192	186,338	1,602,840
28,139	28,139	28,139	29,077	29,077	29,077	43,597	29,077	29,077	- 29,077	29,077	43,634	375,186
122,445	122,445	122,445	126,526	126,526	126,526	189,708	126,526	126,526	126,526	126,526	189,871	1,632,600
6,688	6,688	6,688	6,911	6,911	6,911	10,362	6,911	6,911	6,911	6,911	10,371	89,174
20,376	20,376	20,376	21,055	21,055	21,055	31,568	21,055	21,055	21,055	21,055	31,596	271,674
2,083	2,083	2,083	2,153	2,153	2,153	3,228	2,153	2,153	2,153	2,153	3,230	27,777
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	•	-	-	-	-	-	-	•	-	-	-
 434,532	434,532	434,532	447,858	447,858	447,858	671,293	447,858	447,858	447,858	447,858	671,826	5,781,719

Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	2004 BUDGET
661	661	661	661	661	661	661	661	661	1,542	1,211	661	9,361
441	1,542	441	496	441	441	441	496	441	441	3,799	496	9,911
1,160	1,160	1,160	1,230	1,160	1,160	1,160	1,930	1,160	2,060	1,530	1,130	16,000

Jan-04	Feb-04	Mar-04	Apr-04	Mav-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	2004 BUDGET
125	125	125	125	125	125	125	125	125	125	125	1,125	2,500
2,600	2,600	2,600	2,800	2,600	2,600	2,600	2,800	2,600	2,600	2,800	2,800	32,000
2,000	2,000	2,000	2,250	2,000	2,000	2,000	2,250	2,000	2,000	2,250	2,250	25,000
131,667	131,667	131,667	131,667	131,667	131,667	131,667	131,667	131,667	131,667	131,667	131,667	1,580,000
15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	180,000
-	-	9,500	•	-	9,500	-	•	9,500		•	9,500	38,000
7,600	7,600	7,600	8,550	7,600	7,600	7,600	8,550	7,600	7,600	8,550	8,550	95,000
-	-	•	-	-	-	•			·	·	•	•
-	-	-	-	. •	-	-						
158,992	158,992	168,492	160,392	158,992	168,492	158,992	160,392	168,492	158,992	160,392	170,892	1,952,500

<sup>11</sup> and B4103 are for the maintenance and upkeep of ED-FL's facilities.

1/4/2005, 3:26 PM

	Include Burdens	Burg	dens: Benefits	32.5%	1/4/2005, 3:25 PM
			Exceptional Hours	15.9%	
		]	Payroll Taxes	10.1%	
HARGES FROM PEC AND SERVICE COMPANY.			_	58.5%	
A CONTROL OF THE PROPERTY OF T	The state of the s	CONTROL AND ADMINISTRAÇÃO DE SERVICIO DE CONTROL DE CON			PERSONAL PROPERTY OF A SECURITY OF A SECURITY OF A SECURITY AND A SECURITY OF A SECURI

N	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	BUDGET
	31,253	31,253	31,253	32,294	32,294	32,294	48,421	32,294	32.294	32,294	32.294	48,462	416.701
	49,063	49,063	49,063	50,698	50,698	50,698	76,014	50,698	50,698	50,698	50,698	76,080	654,169
RVSN	143,902	143,910	163,275	148,707	148,707	168,072	222,964	148,707	168,072	148,707	148,707	242,521	1,996,249
₹T	42,833	42,833	65,262	44,260	44,260	66,689	66,362	44,260	66,689	44,260	44,260	88,848	660,814
ES	62,890	62,890	85,918	64,986	64,986	88,013	97,437	64,986	88,013	64,986	64,986	120,549	930,640
DBASE	4,270	4,270	4,270	4,412	4,412	4,412	6,616	4,412	4,412	4,412	4,412	6,621	56,934
DIES	24,148	24,148	24,148	24,953	24,953	24,953	37,414	24,953	24,953	24,953	24,953	37,446	321,979
G SPT	27,755	27,755	27,755	28,680	28,680	28,680	43,002	28,680	28,680	28,680	28,680	43,039	370,066
DIES	4,270	4,270	4,270	4,412	4,412	4,412	6,616	4,412	4,412	4,412	4,412	6,621	56,934
L SPT	•	·	105,200		•	105,200	·	·	105,200	•	•	105,200	420,802
	27,518	27,518	27,518	28,435	28,435	28,435	42,634	28,435	28,435	28,435	28,435	42,671	366,905
ANCE	29,525	29,525	29,525	30,509	30,509	30,509	45,743	30,509	30,509	30,509	30,509	45,783	393,661
T/GRND	1,050	1,050	1,050	1,085	1,085	1,085	1,627	1,085	1,085	1,085	1,085	1,628	14,002
	77,444	77,444	77,444	80,026	80,026	80,026	119,987	80,026	80,026	80,026	80,026	120,090	1,032,587
-	13,020	13,020	13,020	13,454	13,454	13,454	20,172	13,454	13,454	13,454	13,454	20,189	173,595
•	43,502	43,502	43,502	43,702	43,702	43,702	46,799	43,702	43,702	43,702	43,702	46,807	530,022
	-	-	-	-	-	-	-	•	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	_
	-	-	-	-	-	-	-	-	-	-	-	-	_
	<b>-</b> ·	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	_	-	_	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
•	582,442	582,450	752,472	600,612	600,612	770,635	881,807	600,612	770,635	600,612	600,612	1,052,557	8,396,059

				**************************************									2004
N	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	BUDGET
	1,166	1,166	1,166	1,205	1,205	1,205	1,807	1,205	1,205	1,205	1,205	1,808	15,550
	1,035	1,035	1,035	1,069	1,069	1,069	1,603	1,069	1,069	1,069	1,069	1,605	13,799
ERVSN	3,339	3,339	3,339	3,450	3,450	3,450	5,173	3,450	3,450	3,450	3,450	5,177	44,517
₹Т	1,311	1,311	1,311	1,354	1,354	1,354	2,031	1,354	1,354	1,354	1,354	2,033	17,477
IES -	666	666	666	688	688	. 688	1,031	688	688	688	688	1,032	8,876
	382	382	382	395	395	395	592	395	395	395	395	593	5,098
ANCE	413	413	413	427	427	427	640	427	427	427	427	640	5,506
T/GRND	15	15	15	15	15	15	23	15	15	15	15	23	195
	1,972	1,972	1,972	2,038	2,038	2,038	3,055	2,038	2,038	2,038	2,038	3,058	26,290
•	901	901	901	931	931	931	1,395	931	931	931	931	1.397	12.008
	124	124	124	128	128	128	192	128	128	128	128	192	1,652
,	11,323	11,323	11,323	11,700	11,700	11,700	17,542	11,700	11,700	11,700	11,700	17,558	150,967

PEF-SR-09860

					Incl	ude Burdens	Yes		Benefits eptional Hours	32.5% 15.9%		1/4/2005, 3:2	5 PM
La veri de la companya de la company			E SE										2004
N	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	BUDGET
	66,491	66,491	66,491	68,708	68,708	68,708	103,017	68,708	68,708	68,708	68,708	103,106	886,551
	59,335	59,335	59,335	61,313	61,313	61,313	91,930	61,313	61,313	61,313	61,313	92,009	791,136
TES	35,270	35,270	35,270	36,445	36,445	36,445	54,645	36,445	36,445	36,445	36,445	54,692	470,265
ROL EQP	16,249	16,249	16,249	16,249	16,249	16,249	16,249	16,249	16,249	16,249	16,249	16,249	194,994
	252,406	252,406	252,406	260,820	260,820	260,820	391,062	260,820	260,820	260,820	260,820	391,398	3,365,418
	83,855	133,265	133,265	134,413	134,413	134,413	152,187	134,413	134,413	35,593	35,593	53,412	1,299,238
	-	-	-	-	-	-	-	-	-	-	-		-
BUDGET _	513,607	563,017	563,017	577,949	577,949	577,949	809,090	577,949	577,949	479,128	479,128	710,867	7,007,601
									one was a second of the second				
				And a resident state of the second				### EF-54					2004
N	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	BUDGET
	9,391	9,391	9,391	9,704	9,704	9,704	14,550	9,704	9,704	9,704	9,704	14,562	125,213
	9,857	9,857	9,857	10,185	10,185	10,185	15,272	10,185	10,185	10,185	10,185	15,285	131,424
IES	3,510	3,510	3,510	3,627	3,627	3,627	5,439	3,627	3,627	3,627	3,627	5,443	46,803
	46,854	46,854	46,854	48,416	48,416	48,416	72,593	48,416	48,416	48,416	48,416	72,656	624,726
•	7,743	7,743	7,743	8,001	8,001	8,001	11,996	8,001	8,001	8,001	8,001	12,006	103,234
									_				
BUDGET	77,355	77,355	77,355	79,934	79,934	79,934	119,849	79,934	79,934	79,934	79,934	119,952	1,031,401
													2004
N	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04_	Oct-04	Nov-04	Dec-04	BUDGET
3/PGMS	11,550	11,550	11,550	11,550	11,550	11,550	17,250	11,550	11,550	11,550	11,550	17,250	150,000
RT	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	14,400
TES	23,625	23,625	23,625	24,413	24,413	24,413	36,603	24,413	24,413	24,413	24,413	36,635	315,000
PECS	6,545	6,545	6,545	6,545	6,545	6,545	9,775	6,545	6,545	6,545	6,545	9,775	85,000
ſ/STDS	2,695	2,695	2,695	2,695	2,695	2,695	4,025	2,695	2,695	2,695	2,695	4,025	35,000
ON	250,000	250,000	250,000	250,000	250,000	250,000	230,000	34,000	34,000	34,000	34,000	34,000	1,900,000
	58,996	58,996	58,996	60,963	60,963	60,963	91,405	60,963	60,963	60,963	60,963	91,483	786,615
	101,005	171,593	171,593	171,593	171,593	171,593	171,593	171,593	171,593	30,417	30,417	.30,417	1,565,000
	337,500	337,500	337,500	337,500	337,500	337,500	337,500	337,500	337,500	337,500	337,500	337,500	4,050,000
	_		-	-	_	_		_					

PEF-SR-09861

509,282

509,282

562,285

8,901,015

866,458

866,458

899,351

650,458

650,458

866,458

793,116

863,704

863,704

FROM PEC AND SERVICE COMPANY.

Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	2004 BUDGET
50,688	50,688	50,688	51,480	51,480	51,480	77,023	51,480	51,480	51,480	51,480	77,054	666,502
59,697	60,992	60,964	62,472	62,681	62,584	94,208	62,417	62,745	62,982	62,681	91,709	806,131
143,184	143,208	143,206	145,130	145,150	145,128	217,112	145,133	145,131	145,145	145,147	217,106	1,879,779
288,322	288,823	288,890	296,400	297,016	296,547	444,414	296,522	296,683	297,063	296,974	442,537	3,830,190
149,497	149,497	149,497	153,049	153,049	153,049	229,221	153,049	153,049	153,049	153,049	229,365	1,978,421
84,771	84,771	84,771	85,516	85,516	85,516	127,852	85,516	85,516	85,516	85,516	127,882	1,108,655
24,281	19,432	19,432	19,432	19,432	19,432	24,281	19,432	19,432	19,432	19,432	29,145	252,598
48,959	39,167	39,167	39,167	39,167	39,167	48,959	39,167	39,167	39,167	39,167	58,746	509,171
19,506	21,330	21,147	20,079	21,590	19,923	30,028	20,288	20,158	21,225	21,330	23,830	260,434
23,091	23,091	23,091	23,860	23,860	23,860	35,775	23,860	23,860	23,860	23,860	35,806	307,874
24,782	24,782	24,782	24,782	24,782	24,782	37,012	24,782	24,782	24,782	24,782	37,012	321,846
14,400	14,400	14,400	14,656	14,656	14,656	21,935	14,656	14,656	14,656	14,656	21,945	189,673
44,503	44,503	44,503	45,987	45,987	45,987	68,949	45,987	45,987	45,987	45,987	69,008	593,374
11,550	11,550	11,550	11,935	11,935	11,935	17,895	11,935	11,935	11,935	11,935	17,911	154,005
47,724	51,725	51,906	48,255	52,332	48,429	73,813	48,974	50,339	53,254	52,642	57,372	636,764
309	309	309	309	309	309	463	309	309	309	309	463	4,017
508	508	508	508	508	508	508	508	508	508	508	508	6,100
27,916	27,916	27,916	28,847	28,847	28,847	43,252	28,847	28,847	28,847	28,847	43,289	372,215
234,152	222,724	222,748	232,805	233,019	232,856	332,731	232,847	232,903	224,704	224,673	335,313	2,961,474
37,257	37,257	37,257	38,499	38,499	38,499	57,723	38,499	38,499	38,499	38,499	57,772	496,757
13,112	13,255	13,245	13,584	13,713	13,437	20,435	13,544	13,590	13,722	13,662	19,549	174,850
598	677	598	683	715	748	827	995	1,124	1,338	1,186	680	10,169
40,228	40,228	40,228	41,569	41,569	41,569	62,327	41,569	41,569	41,569	41,569	62,380	536,374
606	682	631	726	734	756	856	1,000	1,114	1,366	1,232	734	10,437
1,774	1,774	1,774	1,780	1,780	1,780	2,657	1,780	1,780	1,780	1,780	2,657	23,096
552	552	552	552	552	552	823	552	552	552	552	823	7,162
1,649	1,649	1,649	1,649	1,649	1,649	2,462	1,649	1,649	1,649	1,649	2,462	21,409
10,782	10,782	10,782	12,142	12,142	12,142	18,205	12,142	12,142	12,142	12,142	18,221	153,766
1,404,397	1,386,270	1,386,191	1,415,853	1,422,670	1,416,128	2,091,746	1,417,441	1,419,505	1,416,519	1,415,245	2,081,275	18,273,241

an-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	2004 BUDGE
1,042	1,044	1,076	1,150	1,100	1,037	1,088	1,086	1,016	1,062	1,100	1,108	12,909
5,008	5,013	5,198	5,485	5,264	4,773	5,373	4,858	4,604	5,071	5,275	5,686	61,608
463	463	463	478	478	478	717	478	478	478	478	717	6,167
3,861	3,982	3,936	3,942	4,459	5,350	5,633	6,318	5,628	5,733	5,782	6,692	61,316
573	573	573	644	573	573	573	644	573	573	644	644	7,158
783	783	783	783	783	783	783	· 783	783	783	783	783	9,398
160	160	160	165	165	165	248	165	165	165	165	248	2,131
218	222	229	245	237	235	337	256	262	298	293	336	3,168
71	71	71	71	71	71	71	71	71	71	71	71	848
6,854	6,566	6,622	6,746	6,735	7,004	8,746	7,139	7,049	6,688	6,596	8,645	85,391
407	407	407	407	407	407	609	407	407	407	407	609	5,293
54	59	64	76	69	67	83	89	96	131	124	80	993
59	64	70	85	75	73	91	95	100	143	138	90	1,084
111	111	111	120	123	140	143	151	143	120	111	111	1,497
70	70	70	74	77	86	88	93	88	74	70	70	932
107	107	107	113	117	131	135	142	135	113	107	107	1,422
19,841	19,695	19,939	20,586	20,733	21,373	24,717	22,775	21,600	21,911	22,145	25,998	261,31

PEF-SR-09862

FROM PEC AND SERVICE COMPANY.

Jar	n-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	2004 BUDGET
	139,854	139,854	139,854	141,194	141,194	141,194	211,117	141,194	141,194	141,194	141,194	211,170	1,830,209
1	218,133	218,298	218,281	219,174	219,311	219,160	327,525	219,193	219,182	219,278	219,288	327,003	2,843,827
	92,243	100,342	99,532	94,821	101,532	94,127	139,524	95,747	95,168	99,912	100,375	111,989	1,225,311
	17,105	17,105	17,105	17,105	17,105	17,105	25,546	17,105	17,105	17,105	17,105	25,546	222,146
	580,375	580,375	580,375	599,720	599,720	599,720	899,194	599,720	599,720	599,720	599,720	899,968	7,738,328
•	133,506	133,506	133,506	133,506	133,506	133,506	199,396	133,506	133,506	133,506	133,506	199,396	1,733,853
	332,040	332,041	332,041	343,110	343,110	343,110	514,443	343,110	343,110	343,110	343,110	514,887	4,427,219
	2,408	2,676	2,669	3,094	2,990	3,015	3,511	3,936	4,299	5,497	5,084	3,194	42,373
	78,021	78,021	78,021	78,021	78,021	78,021	116,531	78,021	78,021	78,021	78,021	116,531	1,013,272
	2,542	2,542	2,542	2,542	2,542	2,542	2,542	2,542	2,542	2,542	2,542	2,542	30,498
	22,205	22,205	22,205	22,205	22,205	22,205	33,165	22,205	22,205	22,205	22,205	33,165	288,377
:	250,879	250,879	250,879	250,879	250,879	250,879	374,690	250,879	250,879	250,879	250,879	374,690	3,258,165
	2,528	2,822	2,719	3,143	3,099	3,159	3,632	4,158	4,589	5,759	5,261	3,216	44,085
	2,623	2,906	2,929	3,411	3,257	3,270	3,847	4,283	4,670	6,046	5,610	3,538	46,391
:	215,788	215,788	215,788	215,788	215,788	215,788	322,278	215,788	215,788	215,788	215,788	322,278	2,802,437
	111,725	111,725	111,725	111,725	111,725	111,725	166,861	111,725	111,725	111,725	111,725	166,861	1,450,967
	10,135	10,135	10,135	10,135	10,135	10,135	15,138	10,135	10,135	10,135	10,135	15,138	131,631
	24,085	24,085	24,085	24,085	24,085	24,085	35,972	24,085	24,085	24,085	24,085	35,972	312,791
	-				-							-	
	-		-		-	-							
	-		-		-	-			-				
Т 2,	236,194	2,245,303	2,244,391	2,273,659	2,280,204	2,272,746	3,394,910	2,277,332	2,277,922	2,286,507	2,285,632	3,367,083	29,441,882

					estino de la companya							
Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	2004 BUDGET
12,869	12,869	13,051	14,031	13,437	13,290	14,760	14,102	13,207	13,156	13,650	14,839	163,261
21,923	21,923	22,387	23,860	23,011	22,219	25,071	23,202	21,904	22,396	23,094	25,338	276,327
8,056	8,056	8,056	8,061	8,061	8,061	8,131	8,061	8,061	8,061	8.061	8,131	96,856
33,789	33,789	33,789	34,418	36,720	39,022	52,716	45,926	43,625	43,625	43,625	57,344	498,388
35,856	36,012	36,012	37,679	36,863	37,163	50,166	38,124	36,965	36,280	36,824	49,745	467,688
26,174	26,174	26,174	26,856	27,988	29,119	39,170	32,513	31,382	31,382	31,382	41,460	369,774
670	762	693	773	825	860	932	1,103	1,231	1,427	1,276	768	11,320
20,536	20,536	20,536	21,909	21,328	21,931	27,309	23,119	22,084	21,176	21,608	26,846	268,919
353	353	353	353	353	353	353	353	353	353	353	353	4,238
852	852	852	881	881	881	1,320	881	881	881	881	1,322	11,366
44,011	44,011	44,011	66,017	66,017	110,029	165,044	110,029	110,029	88,023	88,023	165,047	1,100,292
714	· 815	713	·795	866	912	978	1,185	1,336	1,527	1,347	781	11,967
720	818	749	839	887	922	1,005	1,185	1,320	1,546	1,385	836	12,213
36,008	41,722	41,722	41,449	38,618	37,318	43,308	36,946	33,662	34,659	35,434	39,377	460,221
20,001	20,001	20,001	20,001	20,001	20,001	29,871	20,001	20,001	20,001	20,001	29,871	259,752
764	764	764	853	775	791	794	883	794	772	846	846	9,647
779	779	779	830	857	960	987	1,038	987	830	779	779	10,383
264,074	270,237	270,642	299,606	297,486	343,831	461,916	358,652	347,822	326,094	328,568	463,682	4,032,611

PEF-SR-09863

| Include Burdens | Seminor | Semino

FROM PEC AND SERVICE COMPANY.

Jan-04	Feb-04	Mar-04	Арт-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	2004 BUDGET
2,334	2,334	2,438	2,531	2,556	2,393	2,528	2,416	2,329	2,414	2,353	2,346	28,972
1,512	1,502	1,502	1,552	1.552	1,552	2,326	1,552	1,552	1,552	1,552	2,328	20,034
4,326	4,326	4,418	4,581	4,600	4,521	5,057	4,609	4,480	4,459	4,388	4,782	54,545
7,263	7,263	7,538	7,541	7,666	7,391	9,659	7,541	7,391	7,391	7,541	9.813	93,998
19,084	19.472	20,310	19,862	19,445	19,478	20,474	19,569	19,468	19,178	19,418	20,822	236,580
628	628	687	707	687	687	628	648	628	628	648	648	7,852
1,347	1,347	1,347	1,484	1,359	1,359	1,538	1,484	1,359	1,359	1,484	1,663	17,127
8,305	6,645	6,645	6,645	6,645	6,645	8,302	6,645	6,645	6,645	6,645	9,967	86,379
19,409	16,807	16,807	16.807	16,807	16.807	19,409	16,807	16,808	16,808	16,808	22,011	212,097
14,000	14,000	14,000	14,000	14,000	14,000	14,000	14.000	14,000	14,000	14,000	14,000	168,000
385	385	385	385	385	385	575	385	385	385	385	575	5,000
43	43	43	45	47	52	54	57	54	45	43	43	569
55,000	-	-	55,000	- "		55,000	-	-	55,000	-	-	220,000
120	120	120	135	120	120	120	135	120	120	135	135	1,500
4,838	4,838	4,838	4,999	4,999	4,999	7,495	4,999	4,999	4,999	4,999	7,501	64,503
68,762	68,762	77,325	77,338	77,338	77,338	68,776	77,477	60,215	77,338	68,776	60,353	859,799
11,309	12,271	15,343	16,414	18,388	20,301	23,727	22,878	23,798	28,225	26,496	18,754	237,904
606	606	606	647	668	748	769	809	769	647	606	606	8,087
6,184	5,752	6,968	5,480	6,840	7,464	6,488	5,768	6,056	49,504	5,816	6.184	118,504
41,352	38,633	38,821	40,026	39,415	39,979	51,569	40,965	40,121	39,273	39,554	53,960	503,670
2,066	2,066	2,066	2,116	2,066	2,066	2,066	2,116	2,066	2,066	2,116	2,124	25,000
10,253	11,103	13,998	14,983	16,637	18,320	21,600	20,785	21,691	26,012	24,439	17,202	217,023
676,700	776,700	1,060,950	1,451,810	1,451,810	1,532,727	1,582,631	1,573,136	1,607,386	1,101,810	1,101,810	1,147,331	15,064,801
12,086	13,086	16,519	17,680	19,633	21,623	25,490	24,508	25,559	30,646	28,804	20,302	255,936
21,604	24,154	24,154	24,740	23,100	23,088	24,414	23,866	21,597	21,190	21,771	22,038	275,717
32,789	32,526	32,526	34,398	34,747	37,581	39,810	40,063	38,289	34,040	32,982	34,507	424,261
860	650	650	650	650	650	650	650	650	650	650	650	8,010
	1	2	3	4	5	6	7	8	9	10	11	12
1,023,165	1,066,020	1,371,006	1,822,559	1,772,164	1,862,279	1,995,162	1,913,875	1,928,424	1,546,393	1,434,229	1,480,657	19,215,880

- Q. Referring to Exhibit MVW-1, pages 4,6, 8 and 10 of 15, what is the total amount of salary and wages included in the Corporate Communications costs that have been submitted for recovery? Provide a breakdown of these expenses by salary expense and overtime expense for Progress Employees and contract employees.
- A. The following shows the breakdown of Corporate Communications salary and wage expenses for Progress employees and contract employees submitted for recovery:

		(	Charley		rances	 Ivan	 Jeanne	 Total
Progress	Straight Overtime	\$	75,200 42,300	\$	72,192 54,144	\$ 3,008 1,692	\$ 22,184 11,092	\$ 172,584 109,228
Contract			9,000		(3,146)	-	-	5,854
Total		\$	126,500	\$	123,190	\$ 4,700	\$ 33,276	\$ 287,666

### Storm Support Cost Estimate

Complete Yellow Boxes Only and email to Joan Borger with a copy to your financial contact by 3:00 each day of the support period. DO NOT CHANGE TEMPLATE DESIGN

 Organization
 Corporate Communications

 Estimate Provided By
 Joan Miller/Karen Stinneford/Carolina Simpson/Suzanne Morais

 Contact Information for Provider
 546-3923 Suzanne Morais
 (Work Number)

 648-1641 (home) Suzanne Morais
 (Cell phone, pager or other - Please denote which is being provided)

 Financial Contact
 Suzanne Morais/Carolina Simpson
 (Controller, Financial Analyst, Budget Coordinator)

Lab	or	Cc	S	ts

Number of PGN Staff (DO NOT INCLUDE VOLUNTEERS)
Average Hours Per Day Worked
Average Labor Cost per Hour (1)
Total PGN Labor Costs

Number of Contractors
Total Contractor Labor Costs

Total Labor Costs (adds PGN Labor + TL contractor Labor costs)
Total Labor FTE's (adds PGN staff +contractors)

Total f	or Charley	Date	Date	Date	Date	Date	Date	Date
11, 10 to 2 2 2 50.5	40	do ser gen Stred	Sala Labagiana			e i gandina kale		
1216.1	62,5	report filter with the	i ligit sur es republicarens s manual establicarens sur	and respectively on the design of the second	all and references		Carlot Carlott	(102-jest Military
\$	47.00	6 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 /		At A STATE OF THE SAME	<b>网络国际政策</b>	ti i se ka ka ka ka ka da		

\$	126,500	\$ -	\$ -	\$	-	\$ -	\$ •	\$ -  \$	
	40	 0	0		0	0	0	 0	0

(1) Labor costs should be fully loaded with benefits and include any OT or Extended Pay.

### Storm Support Cost Estimate

Complete Yellow Boxes Only and email to Sherri Decker with a copy to your financial contact by 3:00 each day of the support period.

DO NOT CHANGE TEMPLATE DESIGN

Organization Corporate Communications

Estimate Provided By Karen Stinneford/Carolina Simpson/Suzanne Morais

Contact Information for Provider 546-3923 Suzanne Morais (Work Number)

848-1641 (home) Suzanne Morais (Cell phone, pager or other - Please denote which is being provided)

Financial Contact Suzanne Morais/Carolina Simpson (Controller, Financial Analyst, Budget Coordinator)

	Thur Sept 2	Fri Sept 3	Sat Sept 4	Sun Sept 5	Mon Sept 6	Tues Sept 7	Wed Sept 8	Thur Sept 9	Fri Sept 10	Sat Sept 11	Sun Sept 12
Labor Costs Number of PGN Staff (DO NOT INCLUDE VOLUNTEERS) Average Hours Per Day Worked	16 14	16		16	20	27 14	27	30.27.52.702	27	0	0
Average Labor Cost per Hour (1) Total PGN Labor Costs	\$ 47.00 \$ 10,528	\$ 47.00 \$ 10,528	\$ 47.00 \$ 10,528	\$ 47.00 \$ 10,528	\$ 47.00 \$ 13,160	\$ 47.00 \$ 17,766	\$ 47,00 \$ 17,766		\$ 47.00 \$ 17,766		\$ 47.00 \$ -
Number of Contractors Total Contractor Labor Costs				in in the second second		\$	CO. STEW STREET, SANSTON, CO.	\$ -	\$ 1.5		10 \$ 4,750
	T	φ 10,320	Ψ 10,020					I # 47700		# /7 00c\	
Total Labor FTE's (adds PGN staff +contractors)	16	16		16	20		27	27	27	0	10

<sup>(1)</sup> Labor costs should be fully loaded with benefits and include any OT or Extended Pay.

### Other Costs ( Add/delete lines as needed. Be sure to check formals on total line.)

Note: Food/Lodging should only be included if these costs are being coordinated independently of an Ops Center or Staging Area.
---

Sept	Sept	Sept	Sept	Sept	Sept		Sept	Sept	Sept	Sept	Sept
		Lagrangian Company	COLUMBIA FOR		\$ 1	us denial		ALCOHOL: 1	40 (28 382)	Service Company	\$ 28,000
	A MANAGEMENT	South the second		LIFE PARTY	\$ .	844,417	\$ 120,000	\$ 120,000	model to the second		\$ 129,58
			11025144	A Village May	\$	4,52.00	Sin .	W. Tr. (18)	RESERVED TO		1 GAS Holy is
		4 January 19	a 极即隔离影响和		\$	7,700	WINE ENDIN	Tallier Malab	STATE OF LA	A CAPACITATION	\$ 4,30
(4.5 cm ) (1.5 cm)	The Confiners.					Selen APCAS	431	As State of the A. A.	DATA FARE		\$ 8,00
							HARRIE SALE		MERCENIEN		\$ 25,00
		<b>建筑的</b> 的						district days	HENCESARIO		\$ 106,00
The state of the s	THE MARKET		S SATISMENT OF THE SATI	and the second	经等 3. 从前数	TO SHE LEVEL		<b>建筑运动的</b>	The Control of the Paris	RIGHTER ST	
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\$47.2.14			324 AME 48 6	A Miles	Sec. 3 107.156	Ayles:		March of Call	AND STREET	Law District	VE ENEWS PRINTED
				g Mary tille		APRES SESSION	LA RESIDENT	Transfer Total	12 mm saint	0.4004.0163	T TANKER TO
		A Parameters	4. 好种国际企业	I WELL	200 A 104 400		E PERMINNI	Maria Charles	TARANCE EN		To Ar (during the
25/05/05/05/4				all of the	自動作的。於為可能	MARIE WAR	THE WAR	<b>新聞記</b> 2014 Lin	04.043-414.5	<b>计可以编数</b>	s destate si
\$ -	\$ -	\$ -	\$ -	\$	- \$	852,117	\$ 120,000	\$ 120,000	\$ -	\$ -	\$ 300,883

Summary for all days	Total Labor	\$ 123,190	Total Other	\$ 1,393,000	Total Costs	\$ 1,516,190 Total FTE:	s 165

### Storm Support Cost Estimate

Complete Yellow Boxes Only and email to Joan Borger with a copy to your financial contact by 3:00 each day of the support period. DO NOT CHANGE TEMPLATE DESIGN

Corporate Communications Organization

Estimate Provided By Joan Miller/Karen Stinneford/Carolina Simpson/Suzanne Morais Contact Information for Provider

546-3923 Suzanne Morais (Work Number) 848-1641 (home) Suzanne Morais

(Cell phone, pager or other - Please denote which is being provided)

Date

Date

**Financial Contact** Suzanne Morais/Carolina Simpson (Controller, Financial Analyst, Budget Coordinator)

47.00

4,700

Date

Total for Ivan

Lai	bor	Cos	sts

Number of PGN Staff (DO NOT INCLUDE VOLUNTEERS) Average Hours Per Day Worked Average Labor Cost per Hour (1) **Total PGN Labor Costs** 

Number of Contractors

**Total Contractor Labor Costs** 

### Summary of Labor:

Total Labor Costs (adds PGN Labor + TL contractor Labor costs) Total Labor FTE's (adds PGN staff +contractors)

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Date

Date

Date

Date

Date

(1) Labor costs should be fully loaded with benefits and include any OY or Extended Pay

### Other Costs (Add/delete lines as needed. Be sure to check formals on total line.)

Note: Food/Lodging should only be included if these costs are being coordinated independently of an Ops Center or Staging Area

Advertising Photography/Video
Print Materials
Contract Studio Labor
Travel
Advertising /PR agency
Philanthropy
Employee comm. Support
Recognition

Total	Other	Costs

Total	Costs	

Summary for all days

otal for Ivan	01/00/00	01/00/00	01/00/00	01/00/00	01/00/00	01/00/00	01/00/00	Description of Costs
180,000		31.5	As an observation	action to be the	Zologo Bjallero)		New Life Halland	The second of the second
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2,000	Language Barrier			ar sair alla	Market Market		建设设施 安拉战	SHOULD BE A AND DESCRIPTION OF THE SECOND
2,500	(Holes, Realized)		TE THE PERMIT				SERVICE WAR	Sergiesemble disevent
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		Market Barrier		建原环体 70			Licket M.	26760 50760 507
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	6.0							
	Park of Flags	1986		THE PARTY				
270.500	<b>S</b> -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

Total Labor	S	4.700 Total Other	\$ 270.500 Total Costs	\$ 275.200 Total FTE's	

ADDITIONAL INFORMATION:

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52 53

### 经基础工程,并且是自己的ActionCollater的设计。上海共和国的企业对于多类的自由的自由中国的GRAY 。 编码:《发展》

### JEANNE - Storm Support Cost Estimate (September 25 - Oct XX, 2004)

Instructions: Complete GREEN BOXES ONLY - Please forward to Tom Morris / Al Giparas with a copy to your financial contact by 3:00 pm each day of the support period. The file can be emailed or faxed. Fax for Tom Morris is 407-942-9417 or Vnet 280-2417.

Corporate Communications (Security, Corporate Communication, IT/Telecom, Fleet, Damage Claims, Safety etc.) Organization Estimate Provided By Contact Information for Provi (919) 846-4510 Work (Work Number) Cell phone, pager or other - Please denote which is being provided) **Financial Contact** (Controller, Financial Analyst, Budget Coordinator) Wednesday Friday Saturday Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday Tuesday Thursday Oct Oct Sep Sep Sep Sep Oct Line # Labor Costs 26 27 28 12 13 14 15 Total Number of PEF Staff (1) Number of PEC Staff (1) Number of PGN Staff (1) Average Hours Per Day Worked Average Labor Cost per Hour (1) **Total PGN Labor Costs** Number of Contractors (0) Average hours Per Day Worked Average Contract Cost per Hour Total Contractor Lanor Costs 13 Total Labor Costs 15 17 Other Costs (2) 18 Cell Phones, Pagers, Radios Charge - offs 19 20 Child care 21 Flights 22 Food 23 24 Heilcopters 25 Hotels Materials 27 Miscellaneous 26 Vehicle Rentals / Miteage Relmb 30 Advertising 31 32 33 34 XXXX 35 36 **Total Other Costs** 37 38 **Total Costs** 39 40 41 Summary for all days Total Labor \$ \$3,276 | Total Other \$ 522,424 | Total Costs \$ 555,700 42 43 44 Notes: 1) Labor costs should be fully loaded with benefits and include any OT or Extended Pay 45 (2) Food/Lodging should only be included if these costs are being coordinated independently of an Ops Center or Staging Area 3) Enter in FTE's (do NOT include Volunteers) 47 48

Time Po	eriod:	November	YTD	2004
---------	--------	----------	-----	------

time Period: Nove	mber Y I D 2004	
set of books id	retirements description	<u>description</u>
Financial	(69,536.00) Steam Production	F3110-3150-BA- BARTOW - ANCLOTE PIP Total
	(79,246.00)	F3110-AN- ANCLOTE PLANT Total
	0.00	F3110-BS- BARTOW PLANT Total
	(143,350.00)	F3110-CN- CRY RIV 4 & 5 PLANT Total
	(16,229.00)	F3110-CS- CRY RIV 1 & 2 PLANT Total
	(26,986.00)	F3110-SS- SUWANNEE PLANT Total
	(1,674,106.50)	F3120-AN- ANCLOTE PLANT Total
	(20,909.50)	F3120-BS- BARTOW PLANT Total
	(802,095.00)	F3120-CN- CRY RIV 4 & 5 PLANT Total
	(2,841,876.00)	F3120-CS- CRY RIV 1 & 2 PLANT Total
	(113,612.00)	F3120-SS- SUWANNEE PLANT Total
	0.00	F3129-CN- CRY RIV 4 & 5 PLANT(coal) Total
	0.00	F3129-CS- CRY RIV 1 & 2 PLANT(coal) Total
	(2,270,320.00)	F3140-AN- ANCLOTE PLANT Total
	0.00	F3140-BS- BARTOW PLANT Total
	0.00	F3140-CN- CRY RIV 4 & 5 PLANT Total
	(1,664,127.00)	F3140-CS- CRY RIV 1 & 2 PLANT Total
	(21,838.00)	F3140-SS- SUWANNEE PLANT Total
	(177,219.00)	F3150-AN- ANCLOTE PLANT Total
	0.00	F3150-BS- BARTOW PLANT Total
	(210,716.00)	F3150-CN- CRY RIV 4 & 5 PLANT Total
	(148,240.67)	F3150-CS- CRY RIV 1 & 2 PLANT Total
	0.00	F3150-SS- SUWANNEE PLANT Total
	(53,859.00)	F3161-AN- ANCLOTE PLANT Total
	(76,610.00)	F3161-BS- BARTOW PLANT Total
	(2,171.00)	F3161-CN- CRY RIV 4 & 5 PLANT Total
	(14,679.00)	F3161-CS- CRY RIV 1 & 2 PLANT Total

(2,302,785.50) Nuclear

F3210-C3- CRY RIV UNIT 3 Total

Time Period: Nove	mber YTD 2004		
set of books id	retirements	<u>description</u>	<u>description</u>
	0.00		F3211-CT- CRY RIV UNIT 3-CITY OF TA Total
	(21,819,423.98)		F3220-C3- CRY RIV UNIT 3 Total
	0.00		F3221-CT- CRY RIV UNIT 3-CITY OF TA Total
	(438,848.00)		F3230-C3- CRY RIV UNIT 3 Total
	0.00		F3231-CT- CRY RIV UNIT 3-CITY OF TA Total
	(4,091,203.00)		F3240-C3- CRY RIV UNIT 3 Total
	0.00		F3241-CT- CRY RIV UNIT 3-CITY OF TA Total
	(23,624.00)		F3250-C3- CRY RIV UNIT 3 Total
	0.00		F3251-CT- CRY RIV UNIT 3-CITY OF TA Total
	(2,393,942.48)		F3252-1C- CRY RIV UNIT 3 Total
	0.00		F3253-1X- CRY RIV UNIT 3 Total
	(58,340.00) Oth 0.00 (551,674.13) (1,463,578.67) 0.00 (3,516,659.73) (119,170.00) (4,407,025.47) 0.00 (2,531,147.27) (26,472.00)	ner Production	F3410-3461-AP- AVON PARK PEAKERS Total F3410-3461-BP- BARTOW PEAKERS Total F3410-3461-DK- DEBARY PEAKERS (NEW) Total F3410-3461-DP- DEBARY PEAKERS (OLD) Total F3410-3461-HN - COMPLEX UNIT 2 Total F3410-3461-HN- HINES ENERGY COMPLEX Total F3410-3461-IC- INTERCESS CITY PK 12 Total F3410-3461-IG- INTERCESSION CITY-SI Total F3410-3461-IK- INTER. CITY PEAKERS Total F3410-3461-IP- INTERCESSION CITY PE Total
	(48,470.32)		F3410-3461-RP- RIO PINAR PEAKERS Total
	(77,524.00)		F3410-3461-SP- SUWANNEE RIVER PEAKE Total
	(29,878.00)		F3410-3461-TB- TIGER BAY Total
	(210,366.00)		F3410-3461-TP- TURNER PEAKERS Total
	(142,618.76)		F3410-3461-UF- UNIV OF FLORIDA Total
	(34,853.00)		F3410-3461-YP- BAYBORO PEAKERS Total
	(34,033.00)		1 04 10-040 1-11 - DM 1 DONO 1 EMILLIO 10tal

Time Period: Nove	mber YTD 2004				
set of books id	<u>retirements</u>	description	<u>description</u>		
	(9,984.00)		F3462-3C- TIGER BAY Total		
	(2,132,625.95) <b>Tra</b>	nsmission	F3531-SE- STATION EQUIPMENT Total		
	0.00		F3532-EC- ENERGY CONTROL CENTER Total		
	0.00		F3540-ZZ- TOWERS & FIXTURES Total		
	(1,112,664.01)		F3550-ZZ- POLES & FIXTURES Total		
	(707,855.57)		F3560-ZZ- OVERHEAD CONDUCTORS & DEV Total		
	(112,444.00)		F3913-4C- COMPUTER EQUIPMENT Total		
	(39,292.00)		F3915-4D- DUPLICATING EQUIPMENT Total		
	(25.017.00) <b>Di</b> e	fribution	F3610-ZZ- STRUCTURES & IMPROVEMENTS Total		
	(25,017.00) <b>Dis</b>	HIDULION			
	(4,187,674.73)		F3620-ZZ- STATION EQUIPMENT Total		
	(1,087,866.62)		F3640-ZZ- POLES, TOWERS & FIXTURES Total		
	(10,047,538.57)		F3650-ZZ- OVERHEAD CONDUCT. & DEV. Total		
	(363,115.46)		F3660-ZZ- UNDERGROUND CONDUIT Total		

(1,810,205.31)	F3670-ZZ- UNDERGROUND CONDUCT. & DE Total
(4,228,449.38)	F3680-ZZ- LINE TRANSFORMERS Total
0.00	F3691-OH- OVERHEAD SERVICES Total
(8,760,163.56)	F3692-UG- UNDERGROUND SERVICES Total
(1,386,936.72)	F3700-ME- METERS Total
0.00	F3710-ZZ- INSTALLATIONS CUSTOMER PR Total
(2,619,189.40)	F3730-ZZ- STREET LIGHTING & SIGNAL Total

0.00 Corporate	F3890-5Z- LAND AND LAND RIGHTS Total
(20,088.00)	F3900-5Z- STRUCTURES & IMPROVEMENTS Total
(204,083.00)	F3911-5F- OFFICE FURNITURE Total
0.00	F3912-5Q- OFFICE EQUIPMENT Total

Time Period: Nove	mber YTD 2004		
set of books id	retirements	description	description
	(4,818,942.00)		F3913-5C- COMPUTER EQUIPMENT Total
	(16,954.00)		F3931-5H- MOTORIZED HANDLING EQUIP. Total
	(521,198.00)		F3952-5L- PORTABLE LAB EQUIPMENT Total
	(13,049.00)		F3982-51- VINTAGE MISC. EQUIPMENT Total
	(2,455,806.00)		F3911-6F- OFFICE FURNITURE Total
	(1,178.00)		F3912-6Q- OFFICE EQUIPMENT Total
	(12,523,699.00)		F3913-6C- COMPUTER EQUIPMENT Total
	(306,374.00)		F3915-6D- DUPLICATING EQUIPMENT Total
	(978.55)		F3971-6Z- COMMUNICATION EQUIPMENT-E Total
	(731,377.00)		F3982-6I- VINTAGE MISC. EQUIPMENT Total
	(70,482.00)	Energy Solutions	F3900-7Z- STRUCTURES & IMPROVEMENTS Total
	0.00		F3911-7F- OFFICE FURNITURE Total
	(1,900,399.00)		F3913-7C- COMPUTER EQUIPMENT Total
	0.00		F3915-7D- DUPLICATING EQUIPMENT Total
	0.00		F3960-7Z- POWER OPERATED EQ Total
	0.00		F3970-7A- COMMUNICATION EQUIPMENT-7 Total
	0.00		F3971-7Z- COMMUNICATION EQUIP-EMBED Total
	(22,946.00)		F3982-7I- VINTAGE MISC. EQUIPMENT Total
	(318,626.00)	Intangibles	F3030-1Z- INTANGIBLE PLANT Total
	(599,968.00)		F3030-2Z- INTANGIBLE PLANT Total
	0.00		F3429-3439-NG- GAS CONV SITES Total
	0.00		F3030-4Z- INTANGIBLE PLANT Total
	0.00		F3030-5Z- INTANGIBLE PLANT Total
	(451,124.00)		F3701-DC- ENERGY CONSERVATION Total
	(11,026.00)	Non-Utility	F3913-7C- COMPUTER EQUIPMENT(121) Total
	(118,334,649.81)		Grand Total

Q. Referring to the witness Portuondo's Exhibit JP-2 page 2, lines 6d and 6e, itemize what comprises the "Production Demand Related" expenses of \$526,970 and \$3,860,029.

A. The amounts referred to in the question represent the retail portion of the production related O&M storm expenses after application of the Storm Damage Reserve and jurisdictional separation. The Storm Damage Reserve was applied to each function in direct proportion to the expenses as incurred by function (see note A of Exhibit JP-2 page2). The following is an itemization of production related O&M Storm expenses as incurred (system amounts) prior to application of the storm damage reserve and jurisdictional separation. The itemized amount tie to lines 1c-1f of exhibit JP-2, page 2.

**Production Related Storm Expenses** 

Production Relate	Category	•	Charley	Frances	Jeanne	Total
CR3 Nuclear	Energy	(1)	100,000	2,435,000		2,535,000
CR1&2	Energy	(1)		700,000	36,500	736,500
CR4&5	Energy	(1)		75,000	112,800	187,800
CR Coal Yard	Energy	(1)			60,500	60,500
Anclote	Energy	(1)		1,069,000	68,700	1,137,700
Bartow	Energy	(1)			4,500	4,500
Suwannee Steam	Energy	(1)			2,115	2,115
Hines	Base	(2)	10,000		100,000	110,000
University of FL	Base	(2)		10,000		10,000
Tiger Bay	Base	(2)	200,000		80,000	280,000
Peakers - Avon Park Debary Intercession City Rio Pinar Turner	Peaking Peaking Peaking Peaking Peaking	(2) (2) (2) (2) (2)	212,850 15,720 15,000 1,855 7,500	45,000 510,000 9,500	16,000	212,850 76,720 525,000 1,855 17,000
Regional Support	1	(1)			131,200	131,200
Grand Total			562,925	4,853,500	612,315	6,028,740
Subtotal Base Subtotal Peaking Subtotal Energy			210,000 252,925 100,000	10,000 564,500 4,279,000	180,000 16,000 416,315	400,000 833,425 4,795,315

### Notes:

- (1) Steam Production Maintenance costs are allocated to customer classes based on Energy
- (2) Other Production Maintenance costs are allocated to customer classes based on Demand and are stratified as either base or peaking

### Production Related Storm Expenses - Charley

Plant_		Amount	Plant Subtotals
Crystal River 3	Security Costs - Double Teams Required Implementation & Recovery from the Nuclear Violent	9,000	
	Storm Procedure	81,000	
	Employee transportation and meals	10,000	100,000
Hines	Water damage to Electrical components	10,000	10,000
Tiger Bay	Damage to cooling and plant structures	200,000	200,000
Peakers -			
Avon Park	Avon Park P1 / P2 Roof Replacement	100,000	
	Enclosure painting	100,000	
	Roof on Oil Shed	3,500	
	Roof on Equipment Storage	4,000	
	Roof on Guard Shack	3,000	
	Dike Liner Repairs from Sheet Metal Impact Windows in Quansi Hut Shattered	1,500 850	212,850
DeBary	Forklift/Tractor Shed	. 720	
·	Trees on Fence Line	10,000	
	Repair damaged Fence	5,000	15,720
Intercession City	Trees on Fence Line, repair damaged fence	15,000	15,000
Turner	Trees on Fence Line	5,000	
	Repair damaged Fence	2,500	7,500
Rio Pinar	DC Batteries damaged	1,855	1,855
	Total	562,925	562,925

PEF-SR-09882

Print Description  Roof Damage Condensate Resins Employee Labor Security Guards Meals, Expenses, etc.  Roof Damage CEMS out of Service Bailey Cards Chlorination Building Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Crystal River 182  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leaks, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  Peakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #4 level transmitter tank #4	Amount 650,000 410,000 1,200,000 150,000 25,000 703,000 5,000 5,000 3,000 3,000 3,000 700,000	2,435,000 1,069,000
Condensate Resins Employee Labor Security Guards Meals, Expenses, etc.  Delaying, Insulation & Ductwork damage Roof Damage CEMS out of Service Bailey Cards Chlorination Building Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Crystal River 1&2  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Crystal River 4&5  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  Peakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	410,000 1,200,000 150,000 25,000 16,000 325,000 703,000 5,000 8,000 1,000 3,000 3,000 700,000	1,069,000 700,000
Employee Labor Security Guards Meals, Expenses, etc.  Inciote  Boiler House Roof lagging Lagging, Insulation & Ductwork damage Roof Damage CEMS out of Service Bailey Cards Chlorination Building Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Tystal River 1&2  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Erystal River 4&5  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  Peakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oill up door Pump rental Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	1,200,000 150,000 25,000 16,000 325,000 5,000 5,000 8,000 1,000 3,000 3,000	1,069,000 700,000
Security Guards Meals, Expenses, etc.  Inclote  Boiler House Roof lagging Lagging, Insulation & Ductwork damage Roof Damage CEMS out of Service Bailey Cards Chlorination Building Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Crystal River 4&5  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrtte Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  Peakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	150,000 25,000 16,000 325,000 703,000 5,000 8,000 1,000 3,000 3,000	1,069,000 700,000
Meals, Expenses, etc.  notote  Boiler House Roof lagging Lagging, Insulation & Ductwork damage Roof Damage CEMS out of Service Bailey Cards Chlorination Building Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Crystal River 4&5  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  Peakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	25,000 16,000 325,000 703,000 5,000 8,000 1,000 3,000 3,000	1,069,000 700,000
Lagging, Insulation & Ductwork damage Roof Damage CEMS out of Service Bailey Cards Chlorination Building Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Crystal River 182 Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Crystal River 4&5 Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  Peakers - DeBary Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	16,000 325,000 703,000 5,000 5,000 8,000 1,000 3,000 3,000	1,069,000 700,000
Lagging, Insulation & Ductwork damage Roof Damage CEMS out of Service Bailey Cards Chlorination Building Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Crystal River 4&5  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  Peakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	325,000 703,000 5,000 5,000 8,000 1,000 3,000 3,000	700,000
Roof Damage CEMS out of Service Bailey Cards Chlorination Building Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  eakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	703,000 5,000 5,000 8,000 1,000 3,000 3,000	700,000
CEMS out of Service Bailey Cards Chlorination Building Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Inystal River 182  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Erystal River 485  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  Peakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	5,000 5,000 8,000 1,000 3,000 3,000	700,000
Bailey Cards Chlorination Building Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  rystal River 4&5  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  reakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	5,000 8,000 1,000 3,000 3,000	700,000
Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Inystal River 18.2  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Inystal River 48.5  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  Interes on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oil up door Pump rental Pump purchase Generator purchase Repair oil water seperator motors well flow meter Battery charger P4 level transmitter tank #3	8,000 1,000 3,000 3,000	700,000
Lab Wall Water Intrusion Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  rystal River 4&5  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  eakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oil yed door Pump rental Pump purchase Generator purchase Repair oil yed oor Well flow meter Battery charger P4 level transmitter tank #3	1,000 3,000 3,000	700,000
Admin Building Window Covers 2B FD Fan discharge damper 2C Traveling Screen Repair  Tystal River 1&2  Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows cracked or broken, HCT cable tray covers, Pump Motors, wind screens, Waste neutralization bldg roof torn off, Plant siding blown off on 3 sides, Tripper room door glass blown out, 2B ID fan lagging blown off, Feeder deck windows damaged, 2B ID fan lagging blown off, 2A duct to chimney lagging loose, GSU - East compensator tank line oil leak  Tystal River 4&5  Precip Roof Leaks AH Lagging Damaged, Elevator Roof Leaks, 403 Pulverizer Pyrite Leak, Boiler house lighting damage, NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV Roof Leak, Rear Burner Front Water Damage: drains/sandbags  Deakers - DeBary  Generator rental Trees on Fence Line, repair fence Brush clearing Well pump power feed Damage to well pump shed Repair roll up door Pump rental Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	1,000 3,000 3,000	700,000
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Pump purchase Generator purchase Repair oily water seperator motors well flow meter Battery charger P4 level transmitter tank #3	2,000	
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Battery charger P4 level transmitter tank #3	1,500	
level transmitter tank #3	2,000	
V- V	1,500	
INVELTIZAÇIMINEL IZAK #4		45,000
icycl transmitter tank #7	1,500	40,000
On Francisco F AMAGE Abides done		
Intercession City Erosion to East/West divider dam	ደሰሱ ሰለሰ	
Generator rental	500,000	E40 000
Turner Trees on Fence Line, repair fence	500,000 10,000	510,000
AC pumps rewind		
University of FL Generator rental, restoration labor costs	10,000	510,000 9,500
Total	10,000 5,000	

Q. For each Surveillance report since July 2004, please describe the amounts, if any, of storm recovery expenses that are included in each report. Identify where in the report the storm reserve dollars can be found and the amount of those dollars.

Α

FERC Account	1861900 Job Orders Work in Progress End of Period Balance System	2281300 Unfunded Storm Damage End of Period Balance System	9240000 A&G Property Insurance Monthly Activity System
July		(44,415,219)	500,000
August		(44,915,219)	500,000
Sept	312,602,817	(45,415,219)	500,000
Oct	303,117,565	(45,915,219)	500,000
Surveillance Report	Rate Base - Working Capital	Rate Base - Working Capital	O&M Expenses
Notes	Represents balance of accrued storm expenses	Represents balance of Storm Damage Reserve	Represents monthly accrual to Storm Damage Reserve

Q. Referring to the witness Portuondo's Exhibit JP-2 page 2, lines 6d and 6e, itemize what comprises the "Production Demand Related" expenses of \$526,970 and \$3,860,029.

A. The amounts referred to in the question represent the retail portion of the production related O&M storm expenses after application of the Storm Damage Reserve and jurisdictional separation. The Storm Damage Reserve was applied to each function in direct proportion to the expenses as incurred by function (see note A of Exhibit JP-2 page2). The following is an itemization of production related O&M Storm expenses as incurred (system amounts) prior to application of the storm damage reserve and jurisdictional separation. The itemized amount tie to lines 1c-1f of exhibit JP-2, page 2.

**Production Related Storm Expenses** 

Plant	Category	-	Charley	Frances	Jeanne	Total
CR3 Nuclear	Energy	(1)	100,000	2,435,000		2,535,000
CR1&2	Energy	(1)		700,000	36,500	736,500
CR4&5	Energy	(1)		75,000	112,800	187,800
CR Coal Yard	Energy	(1)			60,500	60,500
Anclote	Energy	(1)		1,069,000	68,700	1,137,700
Bartow	Energy	(1)			4,500	4,500
Suwannee Steam	Energy	(1)			2,115	2,115
Hines	Base	(2)	10,000		100,000	110,000
University of FL	Base	(2)		10,000		10,000
Tiger Bay	Base	(2)	200,000		80,000	280,000
Peakers - Avon Park Debary Intercession City Rio Pinar Turner	Peaking Peaking Peaking Peaking Peaking	(2) (2) (2) (2) (2)	212,850 15,720 15,000 1,855 7,500	45,000 510,000 9,500	16,000	212,850 76,720 525,000 1,855 17,000
Regional Support		(1)			131,200	131,200
Grand Total			562,925	4,853,500	612,315	6,028,740
Subtotal Base Subtotal Peaking Subtotal Energy			210,000 252,925 100,000	10,000 564,500 4,279,000	180,000 16,000 416,315	400,000 833,425 4,795,315

### Notes:

<sup>(1)</sup> Steam Production Maintenance costs are allocated to customer classes based on Energy

<sup>(2)</sup> Other Production Maintenance costs are allocated to customer classes based on Demand and are stratified as either base or peaking

### **Production Related Storm Expenses - Charley**

Plant	Description	Amount	Plant Subtotals
Crystal River 3	Security Costs - Double Teams Required Implementation & Recovery from the Nuclear Violent	9,000	
	Storm Procedure	81,000	
	Employee transportation and meals	10,000	100,000
Hines	Water damage to Electrical components	10,000	10,000
Tiger Bay	Damage to cooling and plant structures	200,000	200,000
Peakers -			
Avon Park	Avon Park P1 / P2 Roof Replacement	100,000	
	Enclosure painting	100,000	
	Roof on Oil Shed	3,500	
	Roof on Equipment Storage	4,000	
	Roof on Guard Shack	3,000	
	Dike Liner Repairs from Sheet Metal Impact	1,500	0.40.050
	Windows in Quansi Hut Shattered	850	212,850
DeBary	Forklift/Tractor Shed	720	
•	Trees on Fence Line	10,000	
	Repair damaged Fence	5,000	15,720
Intercession City	Trees on Fence Line, repair damaged fence	15,000	15,000
Turner	Trees on Fence Line	5,000	
Tuttici	Repair damaged Fence	2,500	7,500
Rio Pinar	DC Batteries damaged	1,855	1,855
	Total	562,925	562,925

Plant	Storm Expenses - Frances Description	Amount	Plant Subtotals	
Crystal River 3	Roof Damage	650,000		
nystat raver e	Condensate Resins	410,000		
	Employee Labor	1,200,000		
	Security Guards	150,000		
	Meals, Expenses, etc.	25,000	2,435,000	
	Boiler House Roof lagging	16,000		
inclote	Lagging, Insulation & Ductwork damage	325,000		
	Roof Damage	703,000		
	CEMS out of Service	5,000		
	Bailey Cards Chlorination Building	5,000		
	Lab Wall Water Intrusion	8,000		
	Admin Building Window Covers	1,000		
	2B FD Fan discharge damper	3,000		
	2C Traveling Screen Repair	3,000	1,069,000	
Crystal River 1&2	Louvers blown off precip enclosures, 6900 Volt room exhaust fan cover blown off of roof, 42 windows			
	cracked or broken, HCT cable tray covers, Pump			
	Motors, wind screens, Waste neutralization bldg roof			
	torn off, Plant siding blown off on 3 sides, Tripper room			
	door glass blown out, 2B ID fan lagging blown off,			
	Feeder deck windows damaged, 2B ID fan lagging			
	blown off, 2A duct to chimney fagging loose, GSU -			
	East compensator tank line oil leak	700,000	700,000	
Crystal River 4&5	Precip Roof Leaks	60,000		
Orystal Mivel 100	AH Lagging Damaged, Elevator Roof Leaks, 403			
	Pulverizer Pyrite Leak, Boiler house lighting damage,			
	NE Drain Hanger Broken, ARP Roof Leak, 6.9 KV			
	Roof Leak, Rear Burner Front Water Damage:			
	drains/sandbags	15,000	75,000	
D				
Peakers - DeBary	Generator rental	3,000		
Bobu, y	Trees on Fence Line, repair fence	20,000		
	Brush clearing	2,000		
	Well pump power feed	5,000		
	Damage to well pump shed	1,000		
	Repair roll up door	1,500		
	Pump rental	2,000		
	Pump purchase	1,500		
	Generator purchase	1,500		
	Repair oily water seperator motors	1,000		
	well flow meter	1,500		
	Battery charger P4	2,000		
	level transmitter tank #3	1,500		
	level transmitter tank #4	1,500	45,000	
	iotor danomicor com //	,		
Intercession City	Erosion to East/West divider dam	500,000		
mercession only	Generator rental	10,000	510,000	
Turner	Trees on Fence Line, repair fence	5,000		
I UITIGI	AC pumps rewind	4,500	9,500	
University of FL	Generator rental, restoration labor costs	10,000	10,000	

Production Related S Plant	Storm Expenses - Jeanne Description	Amount	Plant Subtotals
Crystal River 1&2	Payroll, meals & expenses for clean-up efforts	36,500	36,500
Crystal River 4&5	Boiler House Lighting Wind/Water damaged	6,600	
<b>,</b>	Flame scanner heads water damaged	3,100	
	Lagging repairs on boilers and ductwork	40,000	
	Boiler House Lighting Wind/Water damaged	6,600	
	Flame scanner heads & amplifiers water damaged	5,500	
	One turbine roof ventilator repairs	1,000	
	Lagging repairs on boilers and ductwork	50,000	112,800
CR Coal Yard	36A belt and roller repairs	30,710	
	Wind damage conveyors covers 2, 5,35B,36A,36B	2,500	
	CR2 tripper room windows	1,000	
	NCY and SCY control room windows leaking	2,000	
	Rail unloader siding and roof panels loose	14,500	
	tripper & cascade room doors, TP28 fire protection	4,200	
	Screen enclosures for SCY, site smoking rooms	1,220	
	Well house 3 roof wind damage	750	
	· · · · · · · · · · · · · · · · · · ·	1,120	
	CR1 Tripper room siding and window CY Admin Bldg. water damage	2,500	60,500
	•		00,000
Anclote	Company vehicles damages by flying debris	7,000	
	Awning on 6th floor blr siding blown off	700	
	New roof damage on CT chlorine bldg roof	1,000	
	Street lights broken, or not working	8,000	
	Trees down blocking security patrol route	2,000	
	outage trailers siding, skirting, flashing damage	750	
	Boiler roof flashing. Approx 100 feet missing.	3,326	
	Cooling tower cable trays damage	14,700	
	Sand blast building missing shingles	816	
	Water front speaker pole bent	1,200	
	# 2 duct to stack, lagging and insulation blown off	26,000	
	# 2 window, Crane lights, #2 Elevator, 5th		
	Floor roof vent & Other Misc	3,208	68,700
Bartow	Payroll, meals & expenses for clean-up efforts	4,500	4,500
Suwannee Steam	Payroll, meals & expenses for clean-up efforts	2,115	2,115
Regional Support	Payroll, meals & expenses associated with		
•	Parts & Materials runners, Damage		
	Assessment, and Logistics Support	131,200	131,200
Hines	Damage to Divider Dam	100,000	100,000
Tiger Bay	Damage to Overhead Door and Warehouse	80,000	80,000
DeBary Peakers	Tree Removal and Fence Repair	16,000	16,000
	Total	612,315	612,315

### Answer - a)

a)Replace Transformer Fuses with Circuit Switchers: This program was not completed due to the cost evaluation and associated customer benefit. While still needed, it was determined that there were more immediate reliability needs.

Replace Outdated Circuit Breakers with new technology Breakers: This program was completed based on evaluation of specific breakers. All 23 ATB 230 kV Breakers were removed from the grid. These breakers had a history of having poor performance and required significant maintenance. Many other breakers were replaced on the grid as specific reliability problems were identified.

Renovate and Modernize Substations: Significant effort was made to refurbish and modernize our substations including transformer refurbishments, replacing battery banks, replacing old technology arresters, installing oil filtration on transformers, upgrading fences and improve the appearance of our substations. This was completed prior Hurricane Charley. While this program was successful in eliminating many problems, ongoing base plan efforts must be continued to fully renovate and modernize our substations.

GE Type "U" Bushings: This program was prioritized based on field tests and grid reliability exposure. As a result, the high risk locations (such as major transformers, poor test results, critical grid locations) were completed prior to Hurricane Charley. However, there are many Type "U" Bushings that remain which must be closely monitored and possibly replaced in the future as testing warrants.

Increase Transmission Vegetation Management and Encroachment Management: This program was to move our right of way maintenance cycle to a 3-4 year cycle and to resolve the hundreds of encroachments in our rights of way. Prior to Hurricane Charley, we had completed 2700 miles of maintenance and resolved over 1,000 encroachments between 2002 and August 2004. In addition, we have added 4 additional full time foresters and added 4 contract resources to monitor and correct any encroachment issues/requests. Additional maintenance was completed after Hurricane Charley as planned since this is a year round effort.

Accelerate inspection and repair of wood poles: This major initiative was 98 % complete in 2004 prior to Hurricane Charley. We had inspected and repaired 4,896 poles between January and August 12<sup>th</sup> 2004 in addition to the poles that were replaced from maintenance capital funding. In addition, significant efforts were completed in 2002 and 2003 on over 5,000 additional poles.

Replace Corroded Overhead Ground Wires: This initiative was complete in 2003. Over 43 miles of Overhead Ground Wire was replaced in 2003.

<u>Proactive Repair of Transmission Structures</u>: This initiative was complete prior to Hurricane Charley as part several initiatives including bonding and grounding of wood poles and replacing rusted insulators. However, installing a fire protective coating was not completed due to higher reliability efforts.

<u>Install Digital Fault Recorders</u>: This initiative was not complete prior to Hurricane Charley. This technology is useful in locating and analyzing faults. However, new technology has been recently developed and piloted to provide a more cost effective method of locating faults.

<u>Install Diagnostic Monitors on Critical Transformers</u>: This initiative was not complete prior to Hurricane Charley. This technology is useful in predicting emerging transformer problems.

Purchase Mobile Transformer: This initiative was completed in 2003.

Addition of Line Sectionalization Devices: This initiative was completed in 2003.

<u>Loop Radial Substations:</u> This initiative was placed on hold and not completed. While still needed, it was determined that there were more immediate reliability needs.

### 44. b)

	O&M	2004	2003	2002
Α	Substation Maintenance	\$ 6,937,681	\$ 7,379,198	\$ 11,115,482
В	Line Maintenance	4,410,181	4,189,663	2,128,348
	Maint Eng/Constr Support	1,627,748	1,977,874	1,807,018
С	Vegetation Management	4,599,556	4,912,699	5,007,961
	Office Support	2,576,390	2,800,406	2,917,899
	Supervision	1,454,613	1,793,793	1,591,499
	Training and Safety	2,267,738	2,211,448	1,625,777
	IT&T Support	1,723,715	1,514,012	1,992,879
	Benefits and Payroll Tax	6,039,514	5,510,359	4,376,333
	Misc Other	380,390	452,051	808,094
		\$ 32,017,525	\$32,741,502	\$33,371,290

- A Includes expenses to Renovate and Modernize Substations, including Upgrade GE Type-U Bushings.
- B Includes Inspection & Repair of Wood Poles and Proactive Repair of Transmission Structures.
- C Includes Transmission Vegetation and Encroachment Management.

## 44. c)

Capital Category	Asset Type	2004	2003	2002
A Maintenance Capital	Substation Line Fleet/Other	14,254,787 9,663,375 388,333 24,306,495	12,328,687 9,120,964 536,150 21,985,801	19,004,195 16,304,280 5,300,405 40,608,880
B Revenue Growth Capital	Substation Line Fleet/Other	10,164,115 12,052,435 20,700 22,237,251	6,072,729 12,938,563 320,679 19,331,971	5,259,383 12,197,452 163,649 17,620,484
C Regulatory Capital		16,412,498	6,400,964	7,089,891
Grand Total		62,956,244	47,718,736	65,319,255

- A Replacement of existing assets and/or projects that achieve reliability goals.
- B Projects related to capacity increases of the transmission system.
- C Projects required to comply with regulations or customer requests, i.e. highway conflicts.

## Progress Energy

Progress Energy Florida
Distribution Reliability Projects 2002-2004\* Actual Spending (Dollars in Millions)

	(Dollars in Millions)		Сар	ital				O & M		Total Spending					
					Total		0000	0004	Total O&M	2002	2003	2004	Total		
Line#		2002	2003	2004	Capital \$72,521	\$ 17,801	2003	2004		\$ 48,482					
	Total Reliability Spending	- 3 ± 3U;08 I ±	3 Z0,215	3 <u>10,620</u>	3 +12,021	3. 117.001	<u>, <b>0</b> : 10,∠∪∠</u> : 1	A. IOHOG	49,000	915-101102	- Фермини	W.S. EVILOUS	Ψ <sub>12</sub> ) εςσεσ		
1	Safety & Environmental	9,914	7,401	3,793	21,108				2	9,914	7,401	3,793	~21,108		
2	Underground Cable Replacement	2,889	1,710	802	5,401	68	732	397	1,197	2,957	2,442	1,199	6,598		
3	Transformer Replacement & Inspection Program Replace Deteriorating Poles	2,725	1,938	394	5.057	697	429	350	1,476	3,422	2,367	744	6,533		
4 5	Replace Deteriorating Poles	15,528	11,049	4,989	31,566	765	1,161	747	2,673	16,293	12,210	5,735	34,238		
J		15,520	11,010	4,000	01,000	1	.,				·	·	Ť		
6	Optimized for Reliability Improvement				E A				i i						
7	Fusing Coordination	-	3,308	3,582	6,890	j -	35	12	47		3,343	3,594	6,937		
8	Overhead Fault Indicators	2	101	19	122	-	619	2	621		720	21	743		
9	Midpoint Recloser	6,630	3,695	(145)	10,180	600	(86)	-	514	7,230	3,609	(145)	10,694		
10	Infrared Inspection			-	-	255	40	10	305	255	40	10	305		
11	Small Diameter OH Wire			-	- 1			-	- 5	-	-	-	-		
12	Feeder Lightning Arrestors	•	239	274	513			-	-	-	239	274	513		
13	Branch Line Lightining Arrestors		203	-	203			-	- [	-	203	· -	203		
14	Add Sectionalizers	184	2,095	1,331	3,610			-	- \$	184	2,095	1,331	3,610		
15	Loop Sectionalizers	143	307	793	1,243	ä		-	- [	143	307	793	1,243		
16	Spacer Cable	1,195	922	675	2,792			-	- 1	1,195	922	675	2,792		
17	Underground Switching Equipment	46		-	46	505		-	505	551	-	•	551		
18	Line Capacitors/ Cap Maint	1,367	610	428	2,405	272	756	484	1,512	1,639	1,366	912	3,917		
19	Voltage Regulators	185	120	45	350				- [	185	120	45	350		
20	QH Mechanical Switches	-				125	79		204	125	79	-	204		
21	Additonal Automation		203	1,213	1,416			-		<u></u>	203	1,213	1,416		
22		9,752	11,803	8,215	29,770	1,757	1,443	509	3,709	11,509	13,246	8,724	33,479		
23					l l					i i					
24	System Integrity				170										
25	Targeted Feeder Analysis				- 1				-				-		
26	Feeder Performance Improvement Program	3,964	2,518	499	6,981	819	174	•	993	4,783	2,692	499	7,974		
27	Vegetation Management	-			- 6	13,567	14,521	12,243	40,331		14,521	12,243	40,331		
28	System Contingency Improvements	1,203	815	1,922	3,940	56		25	81	1,259	815	1,947	4,021		
29	Automated Meter Reading	80		-	80			-	-	80	•	- 40	80		
30	Data Mapping Enhancements	12	10	-	22	292	85	43	420	304	95	43	442		
31	Mobile Data Computers	142	20	<u>-</u>	162	545	868	189	1,602	687	888	189	1,764		
32		5,401	3,363	2,421	11,185	15,279	15,648	12,500	43,427	20,680	19,011	14,921	54,612		
										C					
33	Total:	30,681	26,215	15,625	72,521	17,801	18,252	13,755	49,808	48,482	44,467	29,380	122,329		

<sup>\*</sup>Note: 2004 Actuals reported through November 2004.

ing in the		giritri essia, reesayadi jiles		Jan	Feb	Mar	Apr	May	srye ke June	(4) 44 <b>Jul</b>	Aug	. Sep	Oct	Nov	л Дес	YTD	ria inglia i	, A
D7108	60211D	PERF ROW MAINT - DISTRIBUTION	Budget:	425,507	440,106	474,169	415,881	449,948	425,615	425,615	465,666	474,277	406,148	425,615	417,012	5,245,561	Budget:	5,24
			Actual;	â	1,212,316	654,629	979,778	518,404	513,910	269,805	413,490	395,667	830,174	171,010	290,158	6,449,239	Projection:	5,24
			Variance: Fav/(Unlav)	425,507	(772,209)	(380,360)	(563,897)	(88,456)	(86,295)	155,810	52,176	78,610	(424,025)	254,605	126,856	(1,203,679)	Variance: Fav/(Unfav)	
D7108	60218D	PERF ROW MAINT - DISTRIBUTION	Budget:	467,683	465,939	520,311	445,977	481,502	461,430	471,828	517,490	625,408	474,811	475,358	473,696	5,781,434	Budget:	5,78
1			Actual:	6,272	821,728	81,017	1,840,046	887,063	215,686	365,554	508,687	246,421	637,208	131,171	189,959	6,528,792	Projection:	5,71
			Variance: Fav/(Unfav)	451,411	(155,787)	439,294	(1,394,071)	(205,581)	245,743	106,274	10,824	278,987	(162,397)	344,187	283,737	252,642	Variance: Fav/(Unfav)	**********
			Budget:	893,190	906,045	994,481	861,858	931,450	887,045	897,443	983,156	999,686	880,960	900,973	890,708	11,026,995	Budget:	11,07
j			Actual:	6,272	1,834,042	935,546	2,819,826	1,205,467	729,598	635,359	920,158	642,089	1,467,382	302,181	480,115	11,978,031	Projection:	11,0
			Variance: Fav/(Unfav)	886,918	(927,996)	58,934	(1,957,968)	(274,017)	157,449	262,084	63,000	357,597	(586,422)	598,792	410,593	(951,037)	Variance: Favi(Unfav)	

		!	Total	Grand					20025941 60898 AUTO METER READ	
	Fav/(Unfav)	Variance	Actual	Budget:	Fav/(Unfav)	Variance:	Actuat		Budget:	
	(10,000)	/46 cool	15 808	0		(15,698)	15,698	•	0	
	(8,740)	0.790	9 700	-		(9.798)	9,798		,	The state of the s
	(48,501)	48,501				(46.501)	48,501	c		the state of the s
	(5,828)	6,828				(6.828)	5.828	•		
	(633)	633			(000)	1858/	A	В	A CONTRACTOR OF THE PROPERTY O	
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	(80.458)	80,458	_		(60,458)			إ	TID	
Favi(Unfav)	Variance	80,458 Projection:	Budget:	Fav/(Unfav)	Variance:	Projection:	Dauget.	Budost	A CONTRACTOR	
			0		0	•			Annua	

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Cash How for Project for DIST OP'S & SUPPURT (60896S) Charge By Impact on Financial View O&M Through December 2002

## Gash Flow for DIST OPS & SUPPORT (608965) Charge By Impact on Financial View O&M Through December 2003

	(ValnU)\va7	302,234	060,282,1	(548,024)	(144,477,t)	(811,122)	348,268	(128,873)	969,784	768,527	21,104	178,72	725,034	696'689	:eonshaV (vsJnU)\vs∃			
14,228,857	Projection:	EB8,159,E1	804,18	1.655,202	2,662,119	968,488,f	1,310,232	160,787,1	284,958	148,528	PTO,880.1	E59'966	192,563	364,655	:leuioA			
T18,855.41	Budget:	14.226.817	1,658,500	871,701,1	871,701,1	841,401,1	009'999'1	871,701,1	871,701,1	871,701,1	877,701,1	1,054,524	1,054,524	1,054,524	:Jegbud			
0	Variance: Favi(Unfav)	290,265	115,961,1	(996,950,1)	(928'64)	(887,014)	479,758	(068,684)	150,780	\$19'E8	(810,821)	(+09,18)	168,265	329'623	Variance: Fav(Unlav)			
2,820,206	Projection:	158,858,8	(866,184)	816,568,1	ST8,884	863,745	107,84	LL7,808	101,20£	566,933	296'019	513,012	275,143	357,17	:leutoA			
5,820,206	:legbud	6,820,206	249.1TB	746,534	462,947	748.S2A	278,778	746,524	162,947	152,947	748,234	804,164	431'408	804,164	:legbud	PERF ROW MAINT - DISTRIBUTION	8017Q	GB1508
oʻ	Variance: Fav(Unlav)	666,11	878,8 <u>5</u> 2	pre.163	(810,157,1)	(146,920)	(101,185)	(226,324)	810,816	170,922	179,122	974,9£1	303,892	916,066	:eonaheV (ValnU)\vs-I			
118,804,8	Projection:	\$19,496,8	916'799	122,666	745,286.2	021,108	1.280,531	555,088	B1E, YEE	90€,68₽	475,108	140,684	319,124	292,800	:lentaA			
119,804,8		119'901'8	P78,878	654,231	165,631	165,428	428,876	824,231	162,688	165,428	924,231	811,628	811,ES3	623,116	:je6png	PERF ROW MAINT - DISTRIBUTION	80170	G11209
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## Cash Flow by Base Program Type for DIST OPS & SUPPORT (80896S) Charge By Impact on Financial View Capital Through December 2004

December 2004

Program Type	1000000			AMATERIA (SANTA)	and the second second second					e regel Marie		SON WEST PROPERTY	over the state of	21,20,21,418-2	is the second	
		Jan	Feb	Mar .	Apr	May	Jun .	Jul	Aug	Sep	Qet 1	Nov	Dec			
0034288	Budget:	77,083	77,083	77,083	79,574	79,574	79,574	118,145	79,574	79,574	79,574	79,574	118,248	1,024,657	Budget:	1,024,657
	Actual:	44,573	46,312	50,164	31,430	50,530	47,917	87,757 50,388	29,573 50,001	12,763	20,862	41,792 37,781	52,815	498,487	Projection:	930,690
	Variance: Fav/(Unfav)	32,511	30,771	26,920	48,143	29,044	31,656	50,388	50,003	66,810	56,712	37,781	65,433	528,170	Variance: Fav/(Unfav)	93,967
able Repl	Budget:	214,945	239,198	274,176	295,926	319,330	338,500	376,824	379,739	393,807	480,611	438,776	317,225	4,045,057	Budget:	4,045,057
	Actual:	69,069	144,467	221,622	189,510	305,026	332,845	359,502	148,678	331,569	358,757	284,079	765,211	3,508,334	Projection:	2,849,907
	Variance: Fav/(Unfav)	145,876	94,731	52,554	106,416	14,305	3,655	17,322	231,060	62,239	103,854	152,697	(447,986)	536,724	Variance: Fav/(Unfav)	1,195,150
Cap Maintenance	Budget:	0	0	0	0	ò	0	. 0	0	0	0	0	0	0	Budget:	(
	Actual:	0	0	0	0	0	0	0	0	0	0	0	0	0	Projection:	
-	Variance: Fav/(Unfav)	0	0	0	0	0	0	0	0	0	0	0	0	0	Variance; Fav/(Unfav)	Ċ
Dist Automation	Budget	0	0	0	0	0	0	0	0	0	0	0	0	0	Budget:	C
	Actual:	19,695	5,764	(250)	0	139	0	0	0	0	0	0	0	25,347	Projection:	
	Variance: Fav/(Unfav)	(19,695)	(5,764)	250	0	(130)	0	0	0	0	0	0	0	(25,347)	Variance: Fav/(Unfav)	C
Line Capacitors	Budget:	31,986	35,704	38,986	42,259	48,444	49,584	55,094	57,188	60,268	69,545	64,681	44,921	598,638	Budget:	596,636
	Actual:	106,175	30,111	66,603	90,758	88,931	21,848	6,198	5,816	8,104	(8,370)	8,851	3,687	430,707	Projection:	590,965
•	Variance: Fav/(Unfav)	(74,189)	5,593	(27,637)	(48,497)	(42,486)	27,736	48,896	51,371	52,164	75,915	55,830	41,235	165,931	Variance: Fav/(Unfav)	5,673
Other	Budget:	ò	0	0	0	0	0	0	0	0	0	0	0	0	Budget:	(
	Actual:	0	220	1,776	0	0	0	0	o	0	0	0	o	1,997	Projection:	
	Variance: Fav/(Unfav)	0	(220)	(1,776)	Ô	0	0	0	0	0	0	0	0	(1,997)	Variance: Fav/(Unfav)	(
Padmounted Xfmr Rep	Budget:	22,906	25,586	30,693	32,477	35,348	36,966	40,935	39,971	40,608	46,590	45,079	34,902	432,060	Budget:	432,060
	Actual:	23,048	70,880	86,800	56,865	70,742	29,700	44,903	18,988	12,919	147,694	223,019	52,478	841,138	Projection:	428,882
•	Vadance: Fav/(Unfav)	(143)	(45,294)	(59,208)	(24,388)	(35,394)	7,268	(3,988)	20,983	27,688	(101,104)	(177,941)	(17,578)	(409,078)	Variance: Fav/(Unfav)	5,376
Poles Treatement/Rep	Budget:	69,095	76,096	85,252	94,553	97,195	101,806	119,504	123,533	132,073	164,319	153,844	102,757	1,319,827	Budget:	1,319,82
	Actual:	27,948	27,974	(25,858)	27,672	33,810	104,934	97,244	(38,294)	16,814	20,384	98,740	203,526	596,896	Projection:	1,300,28
•	Variance: Fav/(Unfav)	41,146	48,123	111,110	66,882	63,385	(3,128)	22,260	159,827	115,258	143,935	54,903	(100,769)	722,931	Variance: Fav/(Unfav)	19,54
PQ Fund	Budget:	0	0	0	0	0	0	0	0	0	0	0	0	0	Budget:	
	Actual:	1,382	(0)	45	0	547	c	0	0	0	0	0	0	1,973	Projection:	
•	Variance: Fav/(Unfav)	(1,382)	0	(45)		(547)	o	0	0	0	0	0	0	(1,973)	Variance: Fav/(Unfav)	,
Recloser Maint	Budget:	0	0	0	0	0	0	0	0	0	0	0	0	0	Budget:	
	Actual:	0	0	0	0	0	0	0	0	0	0	0	0	O	Projection:	
	Variance: Fav/(Unfav)	0	O	0	0	0	Ó	υ	0	0	O	0	o	o	Variance: Fav/(Unfav)	
System Improvement	Budget:	152,203	189,998	184,939	200,776	218,598	232,165	259,072	270,069	285,891	332,652	309,382	213,304	2,829,045	Budget:	2,829,04
	Actual:	107,268	83,723	150,470	200,418	255,703	238,844	320,452	199,349	68,618	139,443	161,233	492,584	2,416,103		2,104,62
	Variance: Fav/(Unfav)	44,934	86,272	34,469	361	(37,107)	(4,679)	(61,380)	70,720	217,273	193,210	148,149	(279,279)	412,942	Variance Fav/(Unfav)	724,42
Voltage Regulators	Budget:	6,352	9,392	8,839	9,823	10,827	11,725	13,103	14,991	16,752	19,537	17,329	10,203	150,872	Budget	150,87
ounde tradeliticis	Actual:	2,610	10,767	12,484	3,493	6,280	331	2,156	8,496	84	36	0	1,601	48,339		
	Variance: Fav/(Unfav)	5,742	(1,375)	(3,645)	6,330	4,547	11,394	10,947	6,495	16,668	19,501	17,329	8,602	102,533	Variance Fav/(Unfav	
	Budget:	578,569	633,055	699,947	755,388	807,314	848,319	982,675	965,064	1,008,972	1,172,828	1,100,464	841,560	10,398,156	Budget	: 10,398,15
	Actual:	401,769	420,218	586,955	600,142	811,708	774,419	898,211	374,607	450,872	678,806	817,715	1,571,901	8,367,320		
	Variance: Fav/(Unfav)	174,800	212,838	132,992	155,246	(4,392)	73,901	84,464	590,457	558,100	494,022	288,749	(730,340)	2,030,836	Variance Fav/(Unfav	

PEF-SR-10490

65,221

228,789

(163,568)

Budget:

Actual:

Variance:

Fav/(Unfav)

72,126

108,521

(36,395)

79,228

93,617

(14,389)

85.860

168,617

(82,757)

96,622

223,518

(126,896)

## Cash Flow for Project for DIST OPS & SUPPORT (60896S) Charge By Impact on Financial View O&M Through December 2004

Cap Maintenance	Budget:	21,551	23,828	26,281	28,453	32,133	35,325	40,012	41,278	43,960	50,870	46,620	31,113	421,446	Budget:	421,446
	Actual;	8,254	3,952	39,048	2,079	83,322	110,081	91,869	52,410	14,014	20,178	59,919	(447)	484,679	Projection:	402,285
	Variance: Fav/(Unfav)	13,298	19,876	(12,767)	26,374	(51,189)	(74,756)	(51,858)	(11,132)	29,966	30,692	(13,290)	31,560	(63,233)	Variance: Fav/(Unfav)	19,161
ECRC	Budget:	C	0	0	0	0	0	C	0	0	0	0	0	0	Budget:	0
	Actual;	2,368	7,212	11,207	8,268	12,172	16,498	14,035	5,853	198	1,800	12,977	19,092	111,676	Projection:	0
	Variance: Fav/(Unfav)	(2,368)	(7,212)	(11,207)	(8,266)	(12,172)	(16,498)	(14,035)	(5,853)	(196)	(1,800)	(12,977)	(19,092)	(111,676)	Variance: Fav/(Untav)	0
IR Scan	Budget:	0	0	0	0	0	0	0	0	0	0	0	0	0	Budget:	0
	Actual:	10,042	0	0	0	8	0	0	0	0	0	0	o	10,042	Projection:	0
	Variance: Fav/(Unfav)	(10,042)	0	0	0	0	0	Ó	Ó	0	0	Ö	Ö	(10,042)	Variance: Fav/(Uniav)	Ö.
Padmounted Xfmr Rept/ Paint	Budget:	22,984	25,367	28,205	30,581	34,230	37,533	42,846	44,066	47,021	54,938	50,439	33,585	451,795	Budget:	451,795
	Actual:	89,908	51,864	40,582	69,095	51,443	10,108	(6,641)	0	31	(31)	0	(3,253)	303,106	Projection:	296,669
	Variance: Fav/(Unfav)	(66,924)	(26,497)	(12,377)	(38,514)	(17,213)	27,424	49,487	44,066	46,990	54,969	50,439	36,838	148,689	Variance: Fav/(Unfav)	152,926
Poles Treatement/Repl/Reinforce	Budget:	20,685	22,931	24,742	26,826	30,258	33,243	37,674	39,424	42,411	49,138	44,750	29,207	401,288	Budget:	401,288
	Actual:	93,393	45,493	2,781	89,177	73,193	9,651	(23,129)	(3,600)	15,086	48,201	0	786	351,132	Projection:	303,426
	Variance: Favi(Unfav)	(72,708)	(22,562)	21,961	(62,350)	(42,935)	23,591	60,802	42,925	27,325	937	44,750	28,420	50,156	Variance: Fav/(Unfav)	97,862
Recloser Maint	Budget:	0	0	0	0	0	0	0	0	0	0	0	0	0	Budget:	O
	Actual:	Ó	0	0	0	3,387	(3,387)	0	(5,133)	0	0	0	3,338	(1,795)	Projection:	0
	Variance: Fav/(Unfav)	0	á	o	ō	(3,387)	3,367	ů	5,133	0	Ö	0	(3,338)	1,795		G.
System Improvement	Budget:	0	0	0	0	0	0	0	0	0	0	0	0	0	Budget:	a
	Actual:	24,825	0	0	0	0	0	. 0	0	0	0	C	0	24,825	Projection:	0
	Variance: Fav/(Unfav)	(24,825)	0	0	0	Ó	Ö	0	0	0	0	0	Ö	(24,825)	Variance: Fav/(Unfav)	Û

106,100

142,952

(36,852)

120,532

76,134

44,398

124,769

49,630

75,139

133,412

29,327

104,085

141,809

72,895

68,913

154,946

70,148

84,798

1,274,529

1,283,665

(9,136)

93,905

19,517

74,388

Budget:

Projection:

Variance: Favi(Unfav)

1,274,529

1,004,580

269,949

Program Type Aug Sap Det Nov Apr Apr Apr Juni Sap Det Sap

## Cash Flow for Project for DIST OPS & SUPPORT (908965) Charge By Impact on Financial View O&M Through December 2004

			Jan't	Fabj	Mar (S	Apr	May	Junt	1475 e <b>Júl</b> 3	Aud	Sep (	Oct	Nev n	Dec	YTO	ndîger	Annual
D7108	PERF ROW MAINT - DISTRIBUTION	Budget:	705,851	805,851	1,090,191	1,481,840	1,481,840	1,502,757	1,627,639	1,603,166	1,637,416	1,131,840	1,131,840	1,192,375	15,452,516	Budget:	15,452,516
		Actual:	732,851	1,370,154	1,668,169	526,268	1,403,053	1,256,067	1,227,322	389,859	401,176	(158,641)	1,773,778	2,917,281	13,507,337	Projection:	13,136,510
		Variance: Fav/(Unfav)	(27,900)	(584,303)	(578,066)	955,572	78,767	306,690	400,317	1,213,307	1,236,240	1,290,461	(641,938)	(1,724,906)	1,945,179	Variance: Fav/(Unfav)	
		Budget:	705,851	805,851	1,090,101	1,481,840	1,481,840	1,562,757	1,627,639	1,603,166	1,637,416	1,131,840	1,131,840	1,192,375	15,452,518	Budget:	15,452,516
		Actual:	732,851	1,370,154	1,668,169	526,268	1,403,053	1,256,067	1,227,322	389,859	401,176	(158,641)	1,773,778	2,917,281	13,507,337	Projection:	13.138,510
		Variance: Fav/(Unfav)	(27,000)	(564,303)	(578,068)	955,572	78,787	306,690	400,317	1,213,307	1,236,240	1,290,481	(641,938)	(1,724,906)	1,945,179	Variance: Favi(Unfav)	2,314,006

Last refresh: 01/07/05 2:19 Pf

## 1<sup>st</sup> Set

## OPC POD

Question 4-Delivery

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### OPC POD

Question
4-Cust.Svc.

# 1<sup>st</sup> Set

OPC POD

Question

4&5-Supply

# 1<sup>st</sup> Set

#### OPC POD

Question

# Progress Energy Florida, no.

## Monthly Financial Review Meeting

### Japan 2004

Presented on March 5, 2004



### Progress Energy

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PEF Monthly Financial Review			January 2004
Meeting Agenda			
Opening Remarks and Overview	Louise Lopez	5 minutes	Pg. 1
January Results	Louise Lopez	5 minutes	Pg. 2
Financial Statement Review Income Statement Balance Sheet Statement of Cash Flows	Louise Lopez	20-30 minutes	Pg. 3-4 Pg. 5-7 Pg. 8-9
CMR O&M Budget Target Summary	Louise Lopez	5 minutes	Pg. 10
Business Issues Update Delivery Nuclear Generation Non-Nuclear Generation RCO Regulatory Property & Plant Accounting Service Company Allocations Treasury	Mark Wimberly Mike Calvello Steve Faucette Donna Massengill Javier Portuondo Andy Krebs Lisa Westberg Greg Beuris	25-35 minutes	Pg. 11-13 Pg. 14 Pg. 15 Pg. 16 Pg. 17 Pg. 18-20 Pg. 21-22 Pg. 23
Projections	Tommy Moses	5 minutes	Pg. 24
Sarbanes Oxley Update	Louise Lopez	5 minutes	Pg. 25
Miscellaneous Items A/R reserve analysis FIN 46 Purchase obligations project Significant and unusual transactions CT transfer accounting treatment	Louise Lopez	15-20 minutes	Pg. 26-28

### Q&A

Attendees: Bob Bazemore, Sandy Wyckoff, Tom Davenport, Tom Sullivan, Mark Myers, Louise Lopez, Tommy Moses, Mark Wimberly, Mike Calvello, Steve Faucette, Donna Massengill, Javier Portuondo, Andy Krebs, Lisa Westberg, Greg Beuris, Steve Meadows, Jackie Clements, David Klementz, Jeff Stone, Penney Develle.

#### Energy Delivery Project Assignments

Due Date	Lead	Completed
05/01/04	Giparas / Hardwick	
01/29/04	Morris	01/29/04
05/31/04	Alcala	
09/01/04	Haislip	
05/01/04	Alcala	
03/31/04	Borger	
05/01/04	Morris	
03/15/04	Morris	
03/15/04	Borger	
03/31/04	Morris	
01/31/04	Haislip	02/05/04
02/01/04	O'Cain	02/01/04
01/31/04	O'Cain	01/31/04
03/31/04	Petrousky	
02/15/04	Borger	02/20/04
04/15/04	Morris	
03/31/04	Hardwick	
04/01/04	McAllister / DeFazio	
05/01/04	Wimberly	
04/01/04	Hodge	
07/01/04	Haislip	
09/01/04	Giparas	
	05/01/04 01/29/04 05/31/04 09/01/04 05/01/04 03/31/04 03/15/04 03/15/04 03/15/04 01/31/04 01/31/04 01/31/04 01/31/04 02/01/04 04/15/04 04/15/04 04/01/04 04/01/04 07/01/04	05/01/04         Giparas / Hardwick           01/29/04         Morris           05/31/04         Alcala           09/01/04         Haislip           05/01/04         Alcala           03/31/04         Borger           05/01/04         Morris           03/15/04         Morris           03/15/04         Borger           03/31/04         Morris           01/31/04         O'Cain           01/31/04         O'Cain           01/31/04         Petrousky           02/15/04         Borger           04/15/04         Morris           03/31/04         Hardwick           04/01/04         McAllister / DeFazio           05/01/04         Wimberly           04/01/04         Hodge           07/01/04         Haislip

Progress Energy Florida, Inc. 13

# RCO Update Donna Massengill

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Dec. 2003 Plant in Service Reclassification entry January 2004	

#### Progress Energy Florida, Inc.

#### Monthly Financial Review Meeting

February 2004

Presented on April 2, 2004



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Meeting Agenda			
Opening Remarks and Overview	Louise Lopez	5 minutes	Pg. 1
February Results	Louise Lopez	5 minutes	Pg. 2-5
Financial Statement Review Income Statement Balance Sheet Statement of Cash Flows	Louise Lo pez	20-30 minutes	Pg. 6-8 Pg. 9-11 Pg. 12-14
CMR O&M and Capital Summaries	Louise Lopez	5 minutes	Pg. 15-17
Business Update Delivery Nuclear Generation Non-Nuclear Generation RCO Regulatory Property & Plant Accounting Service Company Allocations Treasury	Mark Wimberly Louise Lo pez for Mike Calvello Steve McDowell Donna Massengill Javier Portuondo Andy Krebs Lisa Westberg Tom Sullivan	25-35 minutes	Pg. 18-20 Pg. 21 Pg. 22 Pg. 23 Pg. 24 Pg. 25 Pg. 26 Pg. 27
Projections	Tommy Moses	5 minutes	Pg. 28
Sarbanes Oxley Update	Louise Lopez	5 minutes	Pg. 29
Emerging Issues and Areas of Focus Significant and unusual transactions Account reconciliation project FIN 46	Louise Lo pez	15-20 minutes	Pg. 30-31

Q&A

Attendees: Bob Bazemore, Sandy Wyckoff, Tom Davenport, Tom Sullivan, Mark Myers, Louise Lopez, Tommy Moses, Mark Wimberly, Mike Calvello, Steve McDowell, Donna Massengill, Javier Portuondo, Andy Krebs, Lisa Westberg, Greg Beuris, Steve Meadows, Jackie Clements, David Klementz, Jeff Stone, Penney Develle, Bob Drennan

#### Regulatory Update

Javier Portuondo



#### **Progress Energy**

#### **Treasury Update**

Tom Sullivan



#### Progress Energy Florida, Inc.

#### Monthly Financial Review Meeting

March 2004

Presented on May 7, 2004



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1 El Monthly Phrancial Review			
Meeting Agenda			
Opening Remarks and Overview	Louise Lopez	5 minutes	Pg. 1
March Results	Louise Lopez	5 minutes	Pg. 2-7
Financial Statement Review Income Statement Balance Sheet Statement of Cash Flows	Louise Lo pez	20-30 minutes	Pg. 8-10 Pg. 11-13 Pg. 14-16
CMR O&M and Capital Summaries	Louise Lopez	5 minutes	Pg. 17-21
Business Update Delivery Nuclear Generation Non-Nuclear Generation RCO Regulatory Property & Plant Accounting Service Company Allocations Treasury	Mark Wimberly Mike Calvello Steve McDowell Donna Massengill Javier Portuondo Andy Krebs Lisa Westberg Tom Sullivan	30-40 minutes	Pg. 22-24 Pg. 25 Pg. 26 Pg. 27 Pg. 28 Pg. 29-36 Pg. 37 Pg. 38
Projections	Tommy Moses	5 minutes	Pg. 39
Sarbanes Oxley Update	Louise Lo pez	5 minutes	Pg. 40
Emerging Issues and Areas of Focus Significant and unusual transactions A/R reconciliation review	Louise Lo pe 2	5-10 minutes	Pg. 41 Pg. 42

#### Q&A

Attendees: Bob Bazemore, Sandy Wyckoff, Tom Davenport, Tom Sullivan, Mark Myers, Louise Lopez, Tommy Moses, Mark Wimberly, Mike Calvello, Steve McDowell, Donna Massengill, Javier Portuondo, Andy Krebs, Lisa Westberg, Greg Beuris, Steve Meadows, Jackie Clements, David Klementz, Jeff Stone, Penney Develle, Bob Drennan.

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### **RCO** Update

Donna Massengill



### **Treasury Update**

Tom Sullivan



# A/R Reconciliation Review

Louise Lopez



# Progress Energy

Progress Energy Florida, Inc. 42

### Progress Energy Florida, Inc.

### **Monthly Financial Review Meeting**

July 2004

Presented on August 27, 2004



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Meeting Agenda			
Opening Remarks and Overview	Louise Lopez	5 minutes	Pg. 1
July Results	Louise Lopez	5 minutes	Pg. 2-5
CMR O&M and Capital Summaries	Louise Lopez	5 minutes	Pg. 6-9
Business U plate Delivery Nuclear Generation Non-Nuclear Generation RCO Regulatory Property & Plant Accounting Service Company Allocations Treasury Projections	Donna Hardwick Mike Calvello Steve McDowell Donna Massengill Javier Portuondo Andy Krebs Lisa Westberg Tom Sullivan Tommy Moses	30-45 minutes	Pg. 10 Pg. 11 Pg. 12 Pg. 13 Pg. 14 Pg. 15 Pg. 16 Pg. 17 Pg. 18
Emerging Issues and Areas of Focus Sarbanes-Oxley update Significant and unusual transactions  Appendix Financial Statement Review	Louise Lopez Louise Lopez	15-20 minutes	Pg. 19 Pg. 20-21
Income Statement Balance Sheet Statement of Cash Flows Sales and Revenues Wholesale Analysis O&M Variance Analysis			Pg. 22-25 Pg. 26-28 Pg. 29-34 Pg. 35 Pg. 36 Pg. 37

Attendees: Bob Bazemore, Sandy Wyckoff, Tom Davenport, Tom Sullivan, Mark Myers, Louise Lopez, Tommy Moses, Mark Wimberly, Mike Calvello, Steve McDowell, Donna Massengill, Javier Portuondo, Andy Krebs, Lisa Westberg, Greg Beuris, Steve Meadows, Jackie Clements, David Klementz, Jeff Stone, Penney Develle, Bob Drennan, Skip Welker, Todd Yaeger, Donna Hardwick

PEF Monthly Financial Review

Progress Energy Florida, Inc.

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### Treasury Update



### Progress Energy

Progress Energy Florida, Inc 17

### Emerging Issues and Areas of Focus

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PEF Monthly Financial Review

### **APPENDIX**

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### Progress Energy Florida, Inc.

### Monthly Financial Review Meeting

August 2004

Presented on September 24, 2004



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Meeting Agenda			
Opening Remarks and Overview	Louise Lopez	5 minutes	Pg. 1
August Results	Louise Lopez	5 minutes	Pg. 2-5
CMR O&M and Capital Summaries	Louise Lopez	5 minutes	Pg. 6-9
Business U plate  Delivery Nuclear Generation Power Operations RCO Regulatory Property & Plant Accounting Service Company Allocations Treasury Projections  Emerging Issues and Areas of Focus Sarbanes-Oxley update Significant and unusual transactions Account reconciliation project update	Mark Wimberly  Steve McDowell  Donna Massengill  Javier Portuondo  Andy Krebs  Lisa Westberg  Tom Sullivan  Tommy Moses  Louise Lo pez  Louise Lo pez  Louise Lo pez	30-45 minutes 15-20 minutes	Pg. 10 Pg. 11 Pg. 12 Pg. 13 Pg. 14 Pg. 15 Pg. 16 Pg. 17 Pg. 18 Pg. 19 Pg. 20-23 Pg. 24
Appendix Financial Statement Review Income Statement Balance Sheet Statement of Cash Flows Sales and Revenues Wholesale Analysis O&M Variance Analysis	zowie zo jez		Pg. 25-28 Pg. 29-31 Pg. 32-37 Pg. 38 Pg. 39 Pg. 40

Attendees: Bob Bazemore, Sandy Wyckoff, Tom Davenport, Tom Sullivan, Mark Myers, Louise Lopez, Tommy Moses, Mark Wimberly, Mike Calvello, Steve McDowell, Donna Massengill, Javier Portuondo, Andy Krebs, Lisa Westberg, Greg Beuris, Steve Meadows, Jackie Clements, David Klementz, Jeff Stone, Penney Develle, Bob Drennan, Skip Welker, Todd Yaeger

### RCO Update Donna Massengill



### Progress Energy

Progress Energy Florida, Inc. 13

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### Treasury Update



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PEF Monthly Financial Review

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### Progress Energy Florida, Inc.

### Monthly Financial Review Meeting

September 2004

Presented on October 28, 2004



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Meeting Agenda			
Opening Remarks and Overview	Trish Brewer	5 minutes	Pg. 1
September Results	Trish Brewer	5 minutes	Pg. 2-7
CMR O&M and Capital Summaries	Trish Brewer	5 minutes	Pg. 8-11
Business U plate  Delivery Nuclear Generation Power Operations RCO Regulatory Property & Plant Accounting Service Company Allocations Treasury Projections	Mark Wimberly Steve McDowell Steve McDowell Donna Massengill Javier Portuondo Andy Krebs Lisa Westberg Tom Sullivan Tommy Moses	30-45 minutes	Pg. 12 Pg. 13 Pg. 14 Pg. 15 Pg. 16 Pg. 17 Pg. 18 Pg. 19 Pg. 20
Emerging Issues and Areas of Focus Sarbanes-Oxley update Significant and unusual transactions Account reconciliation project update	Trish Brewer Trish Brewer Trish Brewer	15-20 minutes	Pg. 21 Pg. 22-25 Pg. 26
Appendix Financial Statement Review Income Statement Balance Sheet Statement of Cash Flows Sales and Revenues Wholesale Analysis O&M Variance Analysis			Pg. 27-32 Pg. 33-36 Pg. 37-43 Pg. 44 Pg. 45-46 Pg. 47

Attendees: Bob Bazemore, Sandy Wyckoff, Tom Davenport, Tom Sullivan, Mark Myers, Louise Lopez, Trish Brewer, Tommy Moses, Mark Wimberly, Mike Calve Ilo, Steve McDowell, Donna Massengill, Javier Portuondo, Andy Krebs, Lisa Westberg, Greg Beuris, Steve Meadows, Jackie Clements, David Klementz, Jeff Stone, Penney Develle, Bob Drennan, Skip Welker, Todd Yaeger

# Business Update

#### **Power Operations Update**

Steve McDowell



# RCO Update Donna Massengill



Progress Energy

Progress Energy Florida, Inc.

#### Regulatory Update

Javier Portuondo



### **Progress Energy**

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#### **Treasury Update**

Tom Sullivan



#### Emerging Issues and Areas of Focus

#### **APPENDIX**

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### Progress Energy Florida, Inc.

### **Monthly Financial Review Meeting**

**April** 2004

Presented on June 1, 2004



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PEF Monthly Financial Review			•
Meeting Agenda			
Opening Remarks and Overview	Louise Lopez	5 minutes	Pg. 1
April Results	Louise Lopez	5 minutes	Pg. 2-7
Financial Statement Review Income Statement Balance Sheet Statement of Cash Flows	Louise Lopez	20-30 minutes	Pg. 8-10 Pg. 11-13 Pg. 14-16
CMR O&M and Capital Summaries	Louise Lopez	5 minutes	Pg. 17-21
Business Update Delivery Nuclear Generation Non-Nuclear Generation RCO Regulatory Property & Plant Accounting Service Company Allocations Treasury	Mark Wimberly Mike Calvello Steve McDowell Donna Massengill Javier Portuondo Andy Krebs Lisa Westberg Tom Sullivan	30-40 minutes	Pg. 22-23 Pg. 24 Pg. 25 Pg. 26 Pg. 27 Pg. 28-35 Pg. 36 Pg. 37
Projections	Tommy Moses	5 minutes	Pg. 38
Sarbanes Oxley Update	Louise Lopez	5 minutes	Pg. 39
Emerging Issues and Areas of Focus Significant and unusual transactions	Louise Lopez	5-10 minutes	Pg. 40

### Q&A

Attendees: Bob Bazemore, Sandy Wyckoff, Tom Davenport, Tom Sullivan, Mark Myers, Louise Lopez, Tommy Moses, Mark Wimberly, Mike Calvello, Steve McDowell, Donna Massengill, Javier Portuondo, Andy Krebs, Lisa Westberg, Greg Beuris, Steve Meadows, Jackie Clements, David Klementz, Jeff Stone, Penney Develle, Bob Drennan.

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#### Progress Energy Florida Non-Nuclear Generation Update Steve McDowell

April 2004



Progress Energy Florida Property Accounting Key Performance Indicators

April 2004



Progress Energy Florida, Inc. 28

### Treasury Update



### Progress Energy

Progress Energy Florida, Inc. 37

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#### Progress Energy Florida, Inc.

#### Monthly Financial Review Meeting

May 2004

Presented on June 25, 2004



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Meeting Agenda			
Opening Remarks and Overview	Trish Brewer	5 minutes	Pg. 1
Revenue Update	Ski pWelker	5-10 minutes	
May Results	Trish Brewer	5 minutes	Pg. 2-7
Financial Statement Review Income Statement Balance Sheet Statement of Cash Flows	Trish Brewer	20-30 minutes	Pg. 8-10 Pg. 11-13 Pg. 14-16
CMR O&M and Capital Summaries	Trish Brewer	5 minutes	Pg. 17-21
Business Update  Delivery Nuclear Generation Non-Nuclear Generation RCO Regulatory Property & Plant Accounting Service Company Allocations Treasury	Mark Wimberly Todd Yaeger Steve Faucette Donna Massengill Javier Portuondo Andy Krebs Jackie Clements Tom Sullivan	30-40 minutes	Pg. 22-23 Pg. 24 Pg. 25 Pg. 26 Pg. 27 Pg. 28-35 Pg. 36 Pg. 37
Projections	Tommy Moses	5 minutes	Pg. 38
Emerging Issues and Areas of Focus Sarbanes-Oxley update Account reconciliation update Quarterly attestations Significant and unusual transactions	Trish Brewer	5-10 minutes	Pg. 39 Pg. 40 Pg. 41 Pg. 42

Q&A

Attendees: Bob Bazemore, Sandy Wyckoff, Tom Davenport, Tom Sullivan, Mark Myers, Tommy Moses, Mark Wimberly, Steve Faucette, Donna Massengill, Javier Portuondo, Andy Krebs, Greg Beuris, Steve Meadows, Jackie Clements, David Klementz, Jeff Stone, Penney Develle, Bob Drennan, Skip Welker, Todd Yaeger

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RCO Update

Wholesale Term Update

Receivable Update

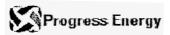
Progress Energy

Progress Energy Florida, Inc. 26

PEF-SR-01046

## Progress Energy Florida Property Accounting Key Performance Indicators

May 2004



### **Treasury Update**

Tom Sullivan



### Progress Energy Florida, Inc.

### Monthly Financial Review Meeting

June 2004

Presented on July 23, 2004



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Meeting Agenda			
Opening Remarks and Overview	Louise Lopez	5 minutes	Pg. 1
Revenue Update	Ski pWelker	5 minutes	Pg. 2
June Results	Louise Lopez	5 minutes	Pg. 3-10
Financial Statement Review Income Statement Balance Sheet Statement of Cash Flows	Louise Lo pez	20-30 minutes	Pg. 11-14 Pg. 15-17 Pg. 18-20
CMR O&M and Capital Summaries	Louise Lopez	5 minutes	Pg. 21-25
Business Update Delivery Nuclear Generation Non-Nuclear Generation RCO Regulatory Property & Plant Accounting Service Company Allocations Treasury	Mark Wimberly Mike Calvello Steve McDowell Donna Massengill Javier Portuondo Lisa Westberg Tom Sullivan	30-40 minutes	Pg. 26 Pg. 27 Pg. 28 Pg. 29 Pg. 30 Pg. 31-38 Pg. 39 Pg. 40
Projections	Tommy Moses	5 minutes	Pg. 41
Emerging Issues and Areas of Focus Sarbanes-Oxley update Account reconciliation update Significant and unusual transactions Accounts receivable	Louise Lo pez Louise Lo pez Louise Lo pez Elaine Rogers	15-20 minutes	Pg. 42 Pg. 43 Pg. 44 Pg. 45-48

Q&A

Attendees: Bob Bazemore, Sandy Wyckoff, Tom Davenport, Tom Sullivan, Mark Myers, Louise Lopez, Tommy Moses, Mark Wimberly, Mike Calvello, Steve McDowell, Donna Massengill, Javier Portuondo, Andy Krebs, Lisa Westberg, Greg Beuris, Steve Meadows, Jackie Clements, David Klementz, Jeff Stone, Penney Develle, Bob Drennan, Skip Welker, Todd Yaeger, Elaine Rogers

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## Revenue Update Skip Welker



# Progress Energy

Progress Energy Florida, Inc.

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Progress Energy Florida Property Accounting Key Performance Indicators

June 2004



Progress Energy Florida, Inc. 31

### Treasury Update



### Progress Energy

Progress Energy Florida, Inc. 40

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# Review

# Account Reconciliation Update

Louise Lopez



# Progress Energy

Progress Energy Florida, Inc. 43

### **Collection Process**

Customer calls Progress Energy to request service.

### Residential Accounts:

- Premise deposit (equal to 2/12) paid prior to reconnect.
- Deposit waived Passed Equifax credit screening.

### Non-Residential Accounts:

- Deposit based on average two month's kilowatt consumption.
- Deposit required prior to reconnect.
- Cash, Letter of Credit, Surety Bond

Electric service is reconnected.

Note: Wholesale and Governmental accounts are treated in the same manner as non-residential accounts.



Scheduled monthly meter reading. Every month, the electric meter is read to determine usage.

Day 1

Current monthly bill mails.

- Event driven billing bill mailed next business day after meter read.
- 21 calendar days to pay.



Day 22

Notice mails.



- Tariff VIII Chapter 25-6.5(g) requires a written notice, separate and apart from any bill for service, at least 5 working days prior to discontinuance of service for non-payment.
- Notice gives 5 working calendar days to pay.

Day 28

Unpaid account is eligible for cut. Account may appear on cutlist for 5 calendar days, and purge on the 6<sup>th</sup> day if collection action is not taken.



- Auto Cut
- Courtesy Call (limited)
- Manually Issue Cut Out

Liability, length of service, and credit history aid in determining whether a residential cut out ticket will be automatically generated. Delinquent accounts not automatically eligible for a cut out appear on the Cutlist for review. Manual reviews are done between Days 1 and 5 of the account appearing eligible for cut. Limited courtesy calls may be placed to non-residential customers. If the customer is called, they are informed that payment must be made by 5:00 PM to avoid cut out. Ultimately, a cut out is issued if payment is not received.

Tariff VIII Chapter 25-6.10 defines the hours for disconnecting service for non-payment. Residential accounts can not be terminated between the hours of 12:00 noon on a Friday and 8:00 AM the following Monday or between 12:00 noon on the day preceding a holiday and 8:00 AM the next working day. Commercial customers are not governed by this rule.

Day 28 - 33

Electric service is disconnected for non-pay.

- R&D / Serviceman disconnects meter for non-payment.
- Field order is completed in FODS.

Once the cut out is completed in CSS, a Collection Inspection order is generated and worked in 10 calendar days. {Note: The Collection Inspection order can be worked sooner, but Revenue Protection prefers to pull the orders in 10 calendar days.}



Day 38 - 43

Revenue Protection reviews the Collection Inspection Order.



The Investigator checks for payments, pending service orders, compares the last meter reading with the cut reading, and evaluates the risk (knowledge of geographical area) to determine whether a field check is warranted. If the KWH consumption appears that the house is vacant, the account is immediately finaled by completing the Collection Inspection Order. If the KWH warrants a field check, the Investigator visits the premise to see if the house is occupied. If the house is vacant, the account is finaled by completing the Collection Inspection Order.

Note: If the premise is occupied and meter is still cut out, the account is held from being finaled until immediately prior to the next billing. If the premise is occupied and meter is on, the Investigator removes the meter and assesses charges.

Day 39 - 44



Final bill mails.21 calendar days to pay.

Day 61 - 66

Final collection letter mails.



7 calendar days to pay.

The final collection letter informs the customer that payment still has not been received for the final bill. The letter states that failure to pay may result in the debt being turned over to a collection agency with national affiliation. If the customer does not pay within 7 calendar days, the charge off process commences.

Day 69 - 74

Charge Off Process.

- Pre-collect letter mailed to residential accounts.
- Attempts made to contact for collection.
- Manual charge off.

Prior to charging off process, all final accounts are matched against active accounts by name and social security or customer number in our CSS system. If the customer has an existing active account, the final debt is automatically transferred to the active account. If the customer does not have an active account, the final account goes through the charge off process. A Pre-Collect Letter is mailed to most customers allowing an additional 30 days for payment. Should the customer fail to make payment after 30 days, the final account is automatically scheduled to be charged off and referred to the outside collection agency with 19 business days. Exceptions include accounts covered by deposit alternatives (surety bonds, letters of credit, etc.). Those accounts are held from charging off until payment on deposit alternative is received in full.

Day 129 - 134

Account charges off.



Accounts charge off daily

Day 130 - 164



Account gets turned over to Collection Agency.

Each day, accounts charged off get referred electronically to our outside collection agencies.

Our Collection Agencies report unpaid accounts to the 3 Credit Bureaus (TRW, TransUnion, and Equifax) within approximately 1 month.

### Progress Energy Florida, Inc.

### Monthly Financial Review Meeting





Confidential

PEF Monthly Financial Review			October 2004
Meeting Agenda			
Opening Remarks and Overview	Trish Brewer	5 minutes	Pg. 1
October Results	Trish Brewer	5 minutes	Pg. 2-5
CMR O&M and Capital Summaries	Trish Brewer	5 minutes	Pg. 6-9
Business U plate  Delivery  Nuclear Generation Power Operations RCO Regulatory Property & Plant Accounting Service Company Allocations Treasury Projections  Emerging Issues and Areas of Focus Sarbanes-Oxley update Significant and unusual transactions	Mark Wimberly Mike Calvello Steve McDowell Donna Massengill Javier Portuondo Andy Krebs Lisa Westberg Tom Sullivan Tommy Moses  Trish Brewer Trish Brewer	30-45 minutes 15-20 minutes	Pg. 10 Pg. 11 Pg. 12 Pg. 13 Pg. 14 Pg. 15 Pg. 16 Pg. 17 Pg. 18  Pg. 19 Pg. 20-22
Appendix Financial Statement Review Income Statement Balance Sheet Statement of Cash Flows Sales and Revenues Wholesale Analysis O&M Variance Analysis			Pg. 23-26 Pg. 27-30 Pg. 31-37 Pg. 38 Pg. 39-40 Pg. 41-42

Attendees: Bob Bazemore, Sandy Wyckoff, Tom Davenport, Tom Sullivan, Mark Myers, Louise Lopez, Trish Brewer, Tommy Moses, Mark Wimberly, Mike Calvello, Steve McDowell, Donna Massengill, Javier Portuondo, Andy Krebs, Lisa Westberg, Greg Beuris, Steve Meadows, Jackie Clements, David Klementz, Jeff Stone, Penney Develle, Bob Drennan, Skip Welker, Todd Yaeger

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PEF Monthly Financial Review

Progress Energy Florida, Inc.

# KEDACTED

# RCO Update Donna Massengill



# Progress Energy

Progress Energy Florida, Inc. 13

### Regulatory Update

Javier Portuondo



### **Treasury Update**

Tom Sullivan



### Emerging Issues and Areas of Focus

PEF Monthly Financial R -.

# **APPENDIX**

Progress Energy Florida, Inc.

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### OPC POD

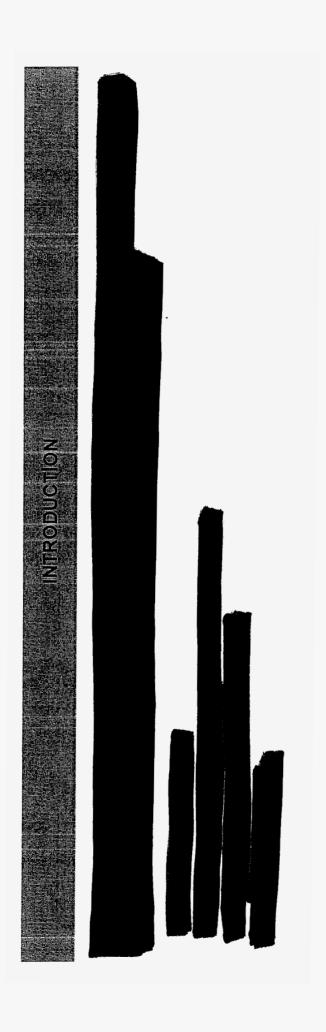
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August 4, 2004

Jeff Lyash



