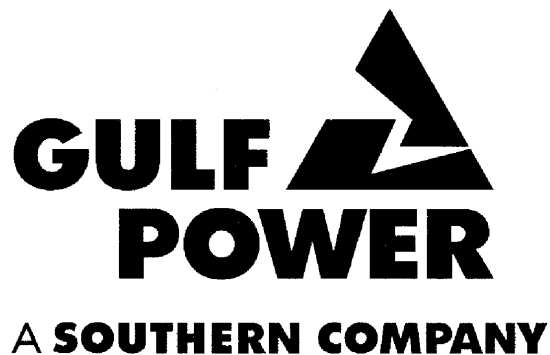


BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060154-E1

TESTIMONY AND EXHIBIT
OF
RICHARD J. MANDES, JR.

In Support of Storm-Recovery Financing



DOCUMENT NUMBER DATE

01516 FEB 22 '88

FPSC-COMMISSION CLERK

1 GULF POWER COMPANY

2 Before the Florida Public Service Commission
3 Prepared Direct Testimony and Exhibit of
4 Richard J. Mandes, Jr.
5 Docket No. 060154-E1
6 In Support of Storm Recovery Financing
7 Date of Filing: February 22, 2006

8 Q. Please state your name, business address and occupation.

9 A. My name is Richard J. Mandes, Jr., and my business address is One
10 Energy Place, Pensacola, Florida 32520. I am the General Manager of
11 Power Delivery for Gulf Power Company. My organization is responsible
12 for all aspects of design, construction, operations and maintenance of
13 both the transmission and distribution systems. In addition, my
14 department is responsible for the preparation and implementation of Gulf
15 Power Company's storm plan.

16 Q. Please summarize your educational and professional background.

17 A. I graduated from the Georgia Institute of Technology with a Bachelor of
18 Science Degree in Electrical Engineering in 1981. I have since held a
19 number of positions with increasing responsibility: Relay Engineer,
20 Distribution Engineer, Planning Engineer, Distribution Engineering
21 Supervisor, Distribution Operating Supervisor, Transmission Maintenance
22 Center Manager, Transmission Project Manager, and Substation
23 Engineering and Construction Manager. All of my experience has been
24 within the Southern Company at Georgia Power Company, Southern
25 Company Services, or Gulf Power Company. My experience with
Southern Company has included areas of distribution operation,

1 maintenance, and construction; transmission operation, maintenance, and
2 construction; relaying and protection of transmission and distribution
3 systems; and planning of transmission and distribution systems.

4 I have served as chairman or member of both transmission and
5 distribution technical and strategic committees within Southern Company.
6 Thus I have dealt with a variety of technical and strategic issues including
7 materials standardization; substation engineering and construction;
8 system operations; transmission expansion; transmission system
9 operations; and geographic information systems.

10
11 Q. Have you prepared an exhibit that contains information to which you will
12 refer in your testimony?

13 A. Yes. I have one exhibit to which I will refer. This exhibit was prepared
14 under my supervision and direction.

15 Counsel: We ask that Mr. Mandes' Exhibit RJM-1,
16 consisting of eleven schedules, be marked
17 for identification as Exhibit No. _____. Please
18 refer to Schedule 1 of Exhibit RJM-1 for an
19 Index of Schedules.

20
21 Q. What is the purpose of your testimony in this proceeding?

22 A. I will address Gulf Power Company's preparation for the impact and
23 restoration occurring as a result of damage caused by any major storm,
24 including hurricanes, affecting Gulf's transmission and distribution
25 systems. Specifically, I will give an overview of how Hurricanes Ivan,

1 Dennis and Katrina impacted Gulf's transmission and distribution facilities
2 and how the execution of the storm plan resulted in the safe and swift
3 restoration of service to Gulf's customers. Further, I will give an
4 explanation of the major components of the storms' recovery costs, both
5 known and estimated, for the transmission and distribution systems.

6
7 Q. Please give an overview of Gulf's service area, including the number of
8 customers, what counties are served, and a summary of Gulf's facilities.

9 A. Please refer to Schedule 2 of my exhibit for a map of Gulf Power's service
10 area. Gulf Power's service area spans the area from the Alabama border
11 on the west to the Apalachicola River on the east; from the Alabama
12 border on the north to the Gulf of Mexico on the south. Gulf Power serves
13 approximately 408,000 retail customers. In all, Gulf Power serves
14 customers in 71 towns and communities in the eight-county service area:
15 Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Bay, Washington and
16 Jackson.

17 Gulf Power owns 2,712 MW of generation capacity. Approximately
18 73 percent of that generation capacity is located at the Plant Crist, Plant
19 Smith and Plant Scholz facilities within Gulf's service area. The
20 remainder of the capacity represents Gulf's interest in Plant Daniel with
21 Mississippi Power Company, Plant Scherer with Georgia Power
22 Company, and three small co-generation units.

23 To deliver electricity to Gulf's customers, Gulf Power maintains 126
24 substations, approximately 1,600 miles of transmission line and 7,200
25 miles of distribution line. Approximately 1,400 miles (20 percent) of the

1 distribution system is underground.

2

3

4 Section I – Storm Preparation and Planning

5

6 Q. Please summarize Gulf's storm planning process that occurs each year
7 before the hurricane season begins on June 1st.

8 A. In February of each year, an email letter is sent to each of the Company's
9 Storm Procedure Manual (Manual) section owners requesting that they
10 review and revise, if necessary, their respective sections. If a major storm
11 occurred the previous year, then these revisions are primarily lessons
12 learned as the result of a storm critique. More detailed departmental
13 plans are also updated during this time. Revisions to the Manual are then
14 reviewed for duplication of responsibility and any discrepancies are
15 reviewed with the section owner. The Manual is updated and the changes
16 reviewed for accuracy. Before any copies are distributed or updated, the
17 entire Manual is reviewed and approved by management. Upon final
18 approval, copies are made and distributed and the Manual is updated on
19 the Company's internal website. It should be noted that Gulf Power
20 proactively works with local county emergency operations centers (EOCs)
21 to ensure the Company's storm procedures complement the county
22 emergency plans. The finalized Storm Procedure Manual is targeted to
23 be published by the beginning of June of each year.

24 As a part of the planning process, all Gulf Power employees are
25 given a specific storm assignment. The Company Emergency

1 Management Center (CEMC) specialist works with Human Resources to
2 ensure that each restoration area is staffed with the appropriate number of
3 employees and that every employee has the proper skill set to perform
4 their storm assignments. In many cases, employees have a storm
5 assignment which may be significantly different from their normal job.
6 Storm training handbooks are updated and distributed as needed.
7 Additionally, training is conducted to ensure that employees are
8 competent to perform the job to which they are assigned. Prior to the
9 storm season, informational meetings are held and internal
10 communications focus on storm preparedness.

11 Members of the CEMC leadership team attend conferences each
12 year in an effort to benefit from lessons learned by others. In the past,
13 these have included: the Southeastern Electric Exchange (SEE) Mutual
14 Assistance meetings, the National Hurricane Conference, and the
15 Governor's Hurricane Conference. Gulf Power also participates in the
16 yearly statewide storm drill under the direction of the State Emergency
17 Operations Center (SEOC).

18 In the logistics and support areas, contracts are negotiated and
19 confirmed with vendors for services such as food, lodging, materials,
20 transportation, fuel, and other support functions. Staging sites are
21 secured, and if needed, agreements are negotiated and signed. Gulf
22 Power's Supply Chain Management department ensures that materials on
23 hand, along with available supplies from the material vendors, are
24 sufficient to meet the anticipated demands of the storm season.

25

1 Q. Please describe the Company Emergency Management Center (CEMC).
2 A. Please refer to Schedule 3 of my exhibit for an organizational chart of the
3 CEMC. The objective of the CEMC is to provide overall direction in the
4 restoration of electric service to Gulf's customers as quickly as possible,
5 while protecting the safety of everyone involved. In order to provide a
6 coordinated response and to maximize the restoration effectiveness, the
7 Company organizes into three major restoration areas headquartered in
8 Pensacola, Fort Walton Beach, and Panama City. The CEMC consists of
9 functional teams which provide support to Power Generation,
10 Transmission and Distribution as they restore their respective systems.
11 The three primary leaders working in the CEMC are the CEMC Manager,
12 the Resource Director, and the Logistics Director, who report directly to
13 the Power Delivery General Manager. On a daily basis, these three
14 leaders work with each other to insure the CEMC is providing the proper
15 administration and support necessary for the restoration efforts in the
16 field. The functional teams that are represented in the CEMC and that
17 report to the CEMC manager are as follows: CEMC Staff; Distribution;
18 Distribution Operations Center; Transmission, System Control, and
19 System Protection; Power Generation; Contractor Coordination; Logistics;
20 Aircraft Operations; Supply Chain Management; Customer Service; EOC
21 Coordination; Corporate Security and Risk Management; Safety and
22 Health; Public Affairs; Human Resources; Fleet Services; Information
23 Technology; Corporate Real Estate and Quality (Facilities); Accounting
24 and Treasury; and Environmental.
25

1 Q. Under what circumstances is the Company Emergency Management
2 Center (CEMC) activated?

3 A. When the National Weather Service announces a tropical storm or
4 hurricane has entered the Gulf of Mexico, the System Operator will notify
5 the CEMC leadership, appropriate management and the Company's
6 executives. Private weather services used by Gulf Power also issue
7 notifications to selected Company officials. The storm is monitored as it
8 develops, and if there is a possibility Gulf Power's service area will be
9 affected, the CEMC at the Company's Pace Boulevard building is set up
10 and readied for activation. The hurricane is closely monitored when it
11 may threaten Gulf Power's service area within 36 hours.

12 After evaluation of wind profiles and consultation with private
13 weather services, a decision is made as to when it will be unsafe for
14 employees to travel. At that time, and after consultation with senior
15 Company management, the Project Services Manager (CEMC Manager),
16 the Power Delivery Services Manager, or the CEMC specialist will
17 determine when the CEMC will be formally activated. Once activated, the
18 CEMC, which is located at the Pace Boulevard Building, is staffed by a
19 core group that will remain for the duration of the storm.

20 CEMC leaders are notified of the activation plan and are
21 responsible for ensuring their respective areas are in a state of readiness
22 and are properly staffed. The CEMC remains operational 24 hours a day,
23 7 days a week, until such time the power is substantially restored to all
24 customers who are able to receive service. Depending on the severity of
25 the storm, repair work on the system may continue after the CEMC is

1 deactivated.

2

3 Q. Please give a brief description of each department that is involved in the
4 storm plan and what their responsibilities are.

5 A. CEMC Staff: Led by the CEMC Manager, this department is responsible
6 for the overall coordination of storm restoration efforts. Before, during and
7 after the storm, the staff is responsible for monitoring the weather
8 associated with the hurricane and communicating this information to other
9 CEMC leaders and Company management and executives. It is
10 responsible for the acquisition of line resources through the SEE, from
11 other Southern Company subsidiaries, and from other utilities, and for
12 coordinating the acquisition of those resources through the Resource
13 Director. The staff assigns work locations to the incoming tree trimming
14 and distribution line resources. The CEMC Manager is responsible for
15 providing customer outage numbers and estimated times of restoration
16 (ETRs) to the SEOC. The CEMC Manager also represents Gulf Power
17 Company on all conference calls associated with the Southern Company
18 Disaster Managers committee and the SEE Mutual Assistance committee.

19 Distribution: This department is responsible for damage
20 assessment and restoration of the distribution system after the storm.
21 The damage assessment provides the information necessary to
22 determine what additional outside labor resources and material will be
23 necessary to complete the restoration. This department works with the
24 CEMC staff and Supply Chain Management in allocating labor and
25 material resources to the affected areas as necessary.

1 Distribution Operations Center (DOC): This department reports to
2 the DOC supervisor and monitors the distribution system's status to help
3 expedite the restoration process. The DOC also ensures the outage
4 management system is current and provides accurate information which
5 the CEMC uses in communications with customers, governmental officials
6 and employees. The DOC issues switching orders to ensure the safety of
7 workers repairing damage to the electrical system.

8 Transmission, System Control, and System Protection: This team
9 is responsible for the overall transmission and substation restoration
10 efforts. Under the direction of the Transmission manager, this department
11 assesses damage to the transmission system by prioritizing the
12 transmission lines to be aerielly evaluated and formulating a restoration
13 plan; performs evaluations of substations; performs switching as needed;
14 and identifies protection and control schemes that need repair after the
15 storm event. This team is also responsible for monitoring the
16 transmission system load and operational status, and for taking corrective
17 action when necessary during the restoration effort.

18 Power Generation: This department provides guidance and
19 accountability to mitigate the risk of storm related damage to Gulf's
20 generation assets, and ensures these assets are properly maintained and
21 operational following a storm event.

22 Contractor Coordination: This department is responsible for the
23 acquisition of contract distribution line and tree trimming resources. It
24 ensures contractors are pre-identified and qualified to work on Gulf
25 Power's system and negotiates the necessary contracts. This department

1 is also responsible for monitoring the costs of these resources and
2 approving the invoices. The CEMC Manager and the Resource Director
3 work together in determining the number of contract distribution line and
4 tree trimming resources to acquire and where they will be assigned to
5 work. The CEMC Manager has the responsibility for releasing the
6 contractors as work is completed.

7 Logistics: The logistics team, under the direction of the Logistics
8 Director, is responsible for coordinating food and lodging requirements for
9 the restoration effort; setting up and managing staging sites; and
10 coordinating mass transportation.

11 Aircraft Operations: Aircraft Operations is responsible for providing
12 and coordinating flights necessary to assess damage to the electrical
13 system, flying with the contractor pilots as airborne evaluators to assess
14 damage to the electrical system, and communicating the damage findings
15 to the appropriate CEMC area to facilitate timely restoration of electrical
16 service.

17 Supply Chain Management: This department produces purchase
18 orders and acquires materials, equipment and supplies needed for the
19 restoration effort. It maintains a centralized material distribution network
20 and disposes of scrap and damaged materials. The Supply Chain
21 Management manager ensures preparations have been made to provide
22 effective procurement and materials management services.

23 Customer Service: This department is responsible for the
24 continuing operation of the Customer Call Center that serves as the
25 primary interface for Gulf Power's customers to report trouble. The

1 Customer Service representatives handle the customers' calls in a timely
2 and professional manner. Through the Customer Service System and the
3 Trouble Call Management System the department enables the CEMC to
4 assign adequate resources to respond to storm trouble.

5 EOC Coordination: The County EOC Team Leader is the
6 coordinator of the County EOC representatives who provide timely and
7 accurate information to those local governmental representatives. The
8 Company also has a representative who works at the SEOC. The
9 Company's EOC representatives provide a direct contact point between
10 Gulf Power and governmental officials at the county and state EOCs,
11 provide the EOCs with accurate and timely information concerning the
12 ongoing restoration effort, and work with the EOCs to address any
13 specialized service needs or concerns.

14 Corporate Security and Risk Management: Under the direction of
15 the manager, this department protects the Company's assets; investigates
16 any claims; and provides security at any staging area or facility.

17 Safety and Health: This team provides orientation to outside
18 resources; provides any additional training necessary; and works to
19 ensure the safety of employees. The manager also works to address and
20 prevent any health issues through acquiring and providing nursing
21 resources.

22 Public Affairs: This department provides timely and accurate
23 information to internal and external audiences; provides media releases;
24 responds to media inquiries; posts news on the Company's web site; and
25 communicates with contacts at county EOCs. The Public Affairs Manager

1 is the designated Company spokesperson in response to any media
2 inquiry.

3 Human Resources: This department assists in accounting for all
4 employees after the storm event; making storm assignments; coordinating
5 the acquisition of additional support personnel from other Southern
6 Company subsidiaries; and coordinating Family Services for employees
7 whose personal property has been damaged or who have had personal
8 emergencies. The Human Resources Director is responsible for handling
9 all personnel issues associated with employees working storm duty.

10 Fleet Services: This department secures fleet equipment for
11 deployment; coordinates all automotive and water craft rentals; provides
12 maintenance support for automotive equipment; and works to acquire and
13 distribute fuel. The Fleet Services Team Leader ensures that all garages
14 are operational and that all company vehicles are maintained.

15 Information Technology (IT): Under the leadership of the Team
16 Leader, the IT Team ensures Company wide communication tools are
17 operational and technical support is provided as needed. This team
18 coordinates the shutdown and protection of all computer equipment; sets
19 up the computer and communication tools in the CEMC; repairs or
20 restores the telecommunications infrastructure, which provides
21 communications for the Company; replaces computers, fax machines and
22 telephones that may have been damaged; establishes temporary
23 communications networks; and provides IT support as needed.

24 Corporate Real Estate and Quality (Facilities): This department
25 ensures all Company facilities are secured and safe before and after any

1 major weather event. It is also responsible for overseeing repairs to
2 facilities damaged during a storm. The manager ensures adequate
3 manpower and materials are available for emergency preparedness and
4 recovery.

5 Accounting and Treasury: This department ensures the Company
6 properly accounts for all expenditures associated with the restoration;
7 ensures funds are available to support the restoration effort; and provides
8 accounting support in the field restoration areas. Accounting and
9 Treasury management ensures that proper accounting practices and
10 procedures are followed.

11 Environmental: The Environmental Department coordinates the
12 overall prevention, assessment, and subsequent remediation of
13 environmental damage associated with company facilities after a natural
14 disaster and serves as the liaison with the local, state, and federal
15 environmental agencies.

16

17

18 Section II – Hurricane Ivan – September 16, 2004

19

20 Q. Prior to Hurricane Ivan making landfall, what preparations did Gulf Power
21 make in anticipation of the hurricane's potential impact on the Company's
22 transmission and distribution system?

23 A. Gulf Power began participating on conference calls with other SEE
24 companies on September 10 to discuss the potential impacts of the storm
25 and the availability of resources within this group. Gulf's weather service

1 provider (Impact Weather) advised the Company that Gulf Power's
2 service area would be impacted by Hurricane Ivan. The Public Affairs
3 department began to prepare external communications for Gulf's
4 customers. The Company began internal communications with all of its
5 employees, informing them of the Company's plans. Gulf Power initiated
6 contact with both state and county EOCs. The Logistics team began to
7 reserve motel accommodations and explore the use of alternative housing
8 arrangements. Contract food vendors were notified and plans for staging
9 sites began. Supply Chain Management checked the availability of
10 materials and equipment and made arrangements for additional materials
11 that were anticipated to be needed. The individual CEMC teams began to
12 implement the pre-storm parts of their plans.

13 Gulf also made calls to transmission and distribution line and tree
14 trimming contractors and other non-SEE utilities to check on the
15 availability of resources to assist with the restoration effort. It should be
16 noted that both transmission and distribution line and tree trimming
17 resources were very hard to find because many of them were already
18 working in South Florida assisting utilities in that region with recovery
19 efforts from Hurricanes Charlie and Frances. Gulf Power secured the
20 resources that were available, understanding that the Company would be
21 dependent on releases from the South Florida utilities to supplement the
22 limited resources that had been secured. The CEMC was activated on
23 September 15 at 6:00 a.m.

24

25 Q. Please summarize Hurricane Ivan's impact on Gulf's transmission and

1 distribution systems.

2 A. Please refer to Schedule 4 of my exhibit for a map of Hurricane Ivan's
3 wind field path across Gulf's service area. At approximately 1:00 a.m. on
4 September 16, Hurricane Ivan made landfall near Gulf Shores, Alabama
5 as a Category 3 hurricane with approximately 110 mph sustained winds.
6 Ivan was a very large and slow moving storm which produced a storm
7 surge of 10-15 feet in Gulf Power's service area. Outages were
8 widespread throughout Gulf's eight county service area. Damage to Gulf
9 Power's facilities was extensive and in many cases catastrophic.
10 Hurricane Ivan resulted in 368,644 Gulf Power customers losing power,
11 which is over 90 percent of Gulf's total customer base. As a result of
12 Ivan's impact, every customer in Escambia and Santa Rosa Counties lost
13 power. After the storm passed through Gulf's service area there were 214
14 of 289 (74 percent) distribution feeder circuits out of service, most of
15 which sustained significant damage. The barrier islands were severely
16 impacted, with major damage to the overhead and underground
17 distribution facilities. The transmission system was also heavily impacted.
18 Out of approximately 1,600 miles of transmission lines, 790 miles (50
19 percent) were out of service, which included damage to 12 transmission
20 structures, and 79 of 126 substations (63 percent) were de-energized.
21 Although a large portion of Gulf's transmission system was out of service,
22 the damage was not as severe as that suffered by the distribution and
23 generation facilities. Plant Crist in Pensacola, the Company's largest
24 generating plant, suffered extensive damage and was knocked completely
25 off line. This was the first time in 25 years the plant had been totally off

1 line and only the second time in the plant's nearly 50-year history.

2

3 Q. How quickly did Gulf restore the transmission system after Hurricane
4 Ivan?

5 A. Restoration of the transmission system began by working to restore a
6 source into Plant Crist for start-up power, so that the plant would be
7 available to provide voltage support as the transmission system was
8 restored. This was accomplished in two days. As more transmission
9 crews arrived, priority was given to restoring the east-west transmission
10 ties across the system and restoring substations that served hospitals,
11 waste treatment plants and water pumping stations. It took seven days to
12 restore service to all transmission facilities.

13

14 Q. Please provide a timeline describing Gulf's response in restoring the
15 Company's distribution system after Hurricane Ivan.

16 A. Please refer to Schedule 5 of my exhibit for a restoration timeline. Gulf
17 Power began damage assessment and restoration efforts late Thursday,
18 September 16. Based on preliminary damage assessments and the
19 limited availability of line and tree resources, Gulf's initial ETR was three
20 weeks.

21 By Sunday, September 19, significant progress had been made
22 and service had been restored to most of the critical customers, such as
23 hospitals, sewer systems and other emergency facilities in Gulf's service
24 area. Additionally, the major distribution and transmission lines of the
25 system had been repaired and service had been restored to more than

1 145,000 customers.

2 Gulf Power reached the half way point in restoring electricity to its
3 customers on Monday, September 20. By Wednesday morning,
4 September 22, power had been restored to 246,000 customers and the
5 restoration was complete in Bay, Jackson, Holmes, Walton, Washington
6 and Okaloosa Counties, with the exception of Holiday Isle. As crews
7 completed restoration in those areas, they were shifted to Escambia and
8 Santa Rosa Counties to assist crews already working in these hardest hit
9 counties. Restoration was much slower in these counties, but by
10 Saturday morning, September 25, Gulf's outage numbers were down to
11 approximately 80,000 customers without service. Gulf Power energized
12 the last distribution feeder breaker at 10:35 a.m. on September 25.

13 Because damage on the barrier islands was so severe, the
14 restoration work on Pensacola Beach, Navarre Beach and Perdido Key
15 had not yet started. On Sunday, September 26, Gulf Power adjusted its
16 ETR to two weeks based on the tremendous progress made. The
17 restoration effort, except for the beach areas on the barrier islands, was
18 essentially completed by September 29; 13 days after Ivan left 90 percent
19 of Gulf Power's customers without power.

20

21 Q. What were the resources used to accomplish the rapid recovery of both
22 the transmission and distribution systems in terms of labor, materials and
23 logistics?

24 A. In order to complete service restoration, Gulf Power utilized over 5,000
25 outside labor resources to replace over 350 miles of wire, 3,900 poles and

1 3,400 transformers. Please see Schedule 11 of my exhibit for a
2 comparison summary of materials used. Given the extent of the damage
3 to the infrastructure in Escambia and Santa Rosa Counties, a tremendous
4 logistics effort was required to support this many resources. Gulf Power
5 erected three large tent cities capable of housing over 2,600 people, and
6 transported others from as far away as Biloxi, Mississippi.

7

8 **Q.** What was the primary means for acquiring the additional outside labor
9 used during the recovery from Hurricane Ivan?

10 **A.** Acquiring resources is an essential part of effective storm restoration. Gulf
11 Power is an active member of the SEE Mutual Assistance committee.
12 This committee has a formalized set of guidelines and a process for
13 requesting mutual assistance from other participating members. Gulf
14 Power is a part of the Southern Company and has access to resources
15 from its subsidiaries. Gulf also has access to resources from other non-
16 SEE utilities.

17 Resource requests can include transmission and distribution line
18 and tree trimming resources; logistics support; warehouse support;
19 damage assessment teams; and other support teams. Gulf has contracts
20 in place with distribution line and tree trimming contractors used during
21 normal operations and emergency restoration efforts. In the case of Ivan,
22 Gulf Power participated on conference calls within the SEE Mutual
23 Assistance committee and within Southern Company. Gulf also made
24 calls to distribution line and tree trimming contractors who regularly work
25 on Gulf's system to check on the availability of additional resources in the

1 event they were needed. Because of the size of the storm, Gulf also
2 called utilities outside of the SEE seeking resources.

3 Gulf Power's storm plan for major hurricanes shows an estimate of
4 at least 4,000 outside resources would initially be needed. Gulf Power
5 knew finding the number of resources needed without drawing on those
6 already working in Florida would be very difficult. Therefore, Gulf was
7 dependent on releases from the other Florida utilities to meet the resource
8 needs.

9
10 Q. In general terms, describe the logistics efforts required to support the
11 additional outside resources.

12 A. Southern Company and Gulf Power view storm logistics as an integral
13 part of achieving safe, timely and efficient results. The specific restoration
14 plans and associated logistics after Hurricanes Ivan, Dennis and Katrina,
15 all within the past year, varied according to the circumstances associated
16 with each storm. In each case, the logistics function has proven essential
17 to Gulf's successful restoration efforts.

18 For all three storms, employees from throughout Southern
19 Company supported Gulf's logistics team in the planning and execution
20 aspects of logistics. Gulf's logistics team handled strategic issues, such
21 as geographic selection of staging sites and the development of
22 contingency plans to deal with disruption of communication, transportation
23 and other critical infrastructure. In addition, they made decisions
24 regarding tactical items, such as developing detailed site plans for parking
25 and fueling trucks, and feeding and housing crews. The logistics plan

1 began with identification of multiple staging sites in each of the designated
2 restoration areas. Typically, each restoration area contained one or two
3 major staging sites, complemented by several smaller satellite staging
4 locations. The major staging sites must have ample paved or otherwise
5 hard and relatively flat surface area, with easy access to major
6 thoroughfares. Agreements had been secured for most of these sites to
7 ensure availability.

8 Determination of which sites to use in the aftermath of any given
9 storm begins with the initial damage assessments and associated
10 estimates of personnel required within each area. The close linkage
11 between resource acquisition and logistics planning is critical, particularly
12 during the early stages of restoration. Provision of lodging and
13 nourishment for the crews and associated support personnel involved in
14 restoration is another key part of the logistics plan.

15 Under the direction of the Gulf Logistics Director, the logistics team
16 leaders at each of the Southern Company subsidiaries work together to
17 identify the most experienced logistics personnel from across the
18 Southern Company and coordinate these assignments from a system
19 perspective. The additional logistics support provided by Gulf's sister
20 companies enables Gulf to draw upon the vast experience available from
21 within Southern Company.

22 Site management focuses on several vital components. Proper
23 nourishment, with particular emphasis on adequate hydration, is a key
24 goal of Gulf's efforts. Gulf has established relationships with catering
25 services vendors over the past few years who understand the importance

1 of preparing and delivering timely, nutritionally balanced and appetizing
2 meals for storm personnel in a safe and sanitary fashion. Another key
3 aspect of successful staging is to ensure the availability of showers, hand
4 wash stations and toilets at major sites, and to provide for the servicing of
5 those facilities. Finally, with regard to site management, providing
6 adequate space and proper layout for parking facilities, in order to
7 facilitate the safe and efficient parking and fueling of vehicles, is also a
8 key consideration.

9

10 Q. What specific logistics challenges were presented by Hurricane Ivan?

11 A. Prior to Hurricane Ivan, Gulf Power had generally been able to secure a
12 sufficient combination of traditional housing alternatives that were located
13 reasonably close to the areas where the personnel were assigned to
14 work. These traditional housing alternatives consisted primarily of hotel
15 and motel rooms, which were supplemented by large buildings filled with
16 cots or air mattresses. By housing the crews in close proximity to their
17 work location, the need for transporting personnel over long distances at
18 the end of the work day could be minimized, which leads to greater
19 productivity and more rested crews. However, the substantial damage
20 sustained to the infrastructure in Escambia and Santa Rosa Counties
21 greatly diminished Gulf's ability to rely on the traditional housing
22 alternatives. Most of the hotels and motels in the counties sustained
23 major damage and the roads and bridges were heavily damaged. The
24 resulting detours and traffic jams made it very difficult to travel. It became
25 apparent that there were very few housing locations available close to the

1 work sites, and traveling from further away was not practical. Therefore,
2 for the first time, Gulf was presented with the challenge of quickly setting
3 up large tent cities for the purpose of providing sleeping accommodations
4 for workers close to their work locations. One other unique challenge was
5 the speed with which the resources arrived in Gulf's service area. Large
6 numbers of resources were already captive within the state of Florida,
7 providing assistance to the South Florida utilities. Once the resources
8 were released from the other utilities, they arrived en masse very quickly,
9 thus presenting the Logistics team with additional challenges.

10

11 Q. How did you acquire the additional material necessary for the recovery
12 from Hurricane Ivan?

13 A. As with acquiring additional labor resources and logistics support, Supply
14 Chain Management worked closely with the other Southern Company
15 operating companies to identify available material within Southern
16 Company. Storm stock quantities were checked against the quantities
17 used during Hurricanes Erin and Opal. Local distributors were asked to
18 provide their in-stock quantities for emergency use. Georgia Power
19 Company provided a logistics specialist, additional supervision and
20 storekeepers to assist with the rapid disbursement of material to the field.
21 They also provided commodity buyers to purchase transformers, poles,
22 and other needed materials. Georgia Power delivered two semi tractors,
23 with drivers and specialized trailers for loading and unloading poles and
24 material at remote sites. Electrical supply distributors were brought to the
25 general warehouse to work closely with the buyers and materials analysts

1 to locate and purchase needed materials. Mississippi Power Company
2 assisted with materials, fuel, and self contained crews.

3

4 Q. How did you scale down your restoration process?

5 A. As crews completed the work in their assigned restoration areas, the
6 CEMC worked with the operations management in those areas to
7 evaluate manpower needs. Resources working in the Eastern and
8 Central Districts of Gulf Power's service area completed restoration first,
9 and were then reassigned to work in the Western District of Gulf Power's
10 territory. Crew releases became an important part of the Ivan restoration
11 process due to the fact that Hurricane Jeanne had struck South Florida
12 while the Ivan restoration was still underway. The utilities in South Florida
13 now were facing the same situation that Gulf had faced two weeks earlier.
14 Outside crew releases began on September 23 and reached a peak on
15 September 29 and 30. Gulf Power worked to release crews in a timely
16 manner so they could go to South Florida to assist the utilities there with
17 the restoration from Hurricane Jeanne. Whenever possible, Gulf Power
18 released specific crews requested by the other Florida utilities, since
19 many of these crews had previously worked in South Florida, facilitating
20 an easier transition. The CEMC was deactivated on October 4 at
21 5:30 p.m.

22

23 Q. What were the total transmission and distribution costs, known and
24 estimated, to Gulf in responding and recovering from Hurricane Ivan and
25 what were the major components of those costs?

1 A. The total known and estimated cost of repairing the transmission and
2 distribution systems was \$121.7 million. Please refer to Schedule 10 of
3 my exhibit for a summary of costs and cost categories by storm. The
4 major categories of cost included in Schedule 10 are:

5 External Costs including Contractors and Equipment: This
6 includes Southern Company affiliate utilities' personnel, SEE member and
7 non-member utilities' personnel, line clearing and other contractors, and
8 security guards used to support Gulf's restoration efforts.

9 Food, Lodging, Transportation, & Other: The logistics cost of
10 providing meals, lodging, linens for tents and other staging areas such as
11 gymnasiums used for lodging, transportation of crews to staging sites,
12 vehicle mileage and rentals, waste management, rental equipment,
13 communications, health services, and other miscellaneous cost.

14 Materials: This includes the cost of major and minor items of
15 property used to repair and restore Gulf's facilities to pre-storm condition
16 such as poles, transformers, meters, light fixtures, wire, and other
17 electrical equipment.

18 Gulf Power Labor & Benefits: Includes the straight time and
19 overtime payroll cost & benefits of Gulf Power employees that supported
20 the storm restoration efforts.

21 Fuel: Includes the cost of fuel tankers brought in for Gulf and
22 contractor vehicles used in the restoration efforts.
23
24
25

1 Section III – Hurricane Dennis – July 10, 2005

2

3 Q. How did Gulf Power's preparation for Hurricane Dennis differ in
4 preparations made for Hurricane Ivan?

5 A. The preparations for Hurricane Dennis were very similar to those for
6 Hurricane Ivan. Gulf Power began participating on conference calls with
7 other SEE companies on July 7 to discuss the potential impacts of this
8 storm and availability of resources within this group. The same pre-storm
9 activities occurred as with Ivan, involving Public Affairs, the EOC
10 interfaces, logistics preparations, and others. Gulf also made calls to line
11 and tree contractors and other utilities to check on the availability of
12 resources that could help with the restoration effort. The CEMC was
13 activated on July 9 at 7:00 p.m.

14

15 Q. What, in general terms, was Hurricane Dennis' impact on Gulf's
16 transmission and distribution systems?

17 A. Please refer to Schedule 6 of my exhibit for a map of Hurricane Dennis'
18 wind path over Gulf's service area. At approximately 2:00 p.m. on July 10,
19 2005 Hurricane Dennis made landfall just east of Pensacola as a
20 Category 3 hurricane with approximately 125 mph sustained winds.
21 Dennis was a compact and fast moving storm which produced a 6-8 foot
22 storm surge in Gulf Power's service area. Outages were widespread
23 throughout Gulf's eight county service area. Although damage to the
24 distribution system was extensive, the overall infrastructure damage was
25 not as great as the damage caused by Ivan due to the compact nature of

1 this storm. However, one of the barrier islands, Santa Rosa Island, again
2 suffered extensive damage to both the overhead and underground
3 distribution systems. Outage numbers peaked at 265,918 total
4 customers, which was over 60 percent of Gulf's customers. After the
5 storm passed through Gulf's service area there were 47 of 126
6 substations de-energized (37 percent), and 500 of 1,600 miles of
7 transmission lines out of service (31 percent), which included damage to 7
8 transmission structures. There were also 138 of 291 (47 percent) of the
9 distribution feeder circuits out of service immediately following the storm.
10

11 Q. Please provide a timeline of Gulf's transmission system restoration after
12 Hurricane Dennis.

13 A. With all generation available and the majority of the 230kV system in
14 service, the restoration effort was concentrated on restoring the 115kV
15 and 46kV systems immediately after the storm. It took four days to
16 restore service to all transmission facilities. The last substation was
17 energized on July 14.
18

19 Q. How quickly was Gulf able to restore the Company's distribution system
20 after Hurricane Dennis?

21 A. Please refer to Schedule 7 of my exhibit for a restoration timeline. Gulf
22 Power began damage assessment and restoration efforts late on Sunday
23 afternoon, July 10, almost immediately after the storm had passed.
24 Based on the early assessments, the initial ETR was two weeks. By the
25 morning of July 11 significant progress had been made and service had

1 been restored to almost all of Gulf's critical customers, such as hospitals,
2 sewer systems and other emergency facilities. After a more thorough
3 assessment, Gulf revised the ETR to be 95 percent complete within one
4 week, excluding the Santa Rosa barrier island. The majority of outside
5 distribution line and tree resources began arriving on Gulf's system on
6 July 11. By 7:00 a.m. on Wednesday, July 13, two days after the full
7 restoration effort began, electricity had been restored to over half of Gulf's
8 customers who had lost power, and the restoration effort was complete in
9 Bay, Jackson, Holmes, and Washington Counties. Gulf Power energized
10 the last distribution feeder breaker at 9:06 p.m. July 13. All of Gulf's
11 customers who could take service were restored by Saturday, July 16,
12 excluding Santa Rosa Island. With the major restoration complete, Gulf
13 Power contract crews moved to Santa Rosa Island to begin full scale
14 restoration and rebuild the distribution systems on both Navarre and
15 Pensacola Beaches.

16

17 Q. What were the resources used to accomplish the rapid recovery of both
18 the transmission and distribution systems in terms of labor, material?

19 A. In order to complete service restoration, Gulf Power utilized over 3,800
20 outside labor resources to replace over 130 miles of wire, 600 poles and
21 approximately 900 transformers. Please see Schedule 11 of my exhibit
22 for a comparison summary of materials used.

23

24 Q. What sources did Gulf rely on for additional outside labor used during the
25 recovery from Hurricane Dennis?

1 A. In the case of Dennis, Gulf Power participated on mutual assistance
2 conference calls within the SEE group and within Southern Company.
3 Gulf began making contacts with contractors and utilities that had assisted
4 during the Ivan restoration. Gulf also made calls to line and tree trimming
5 contractors who work on Gulf's system on a routine basis to check on the
6 availability of additional resources in the event they were needed.
7 Commitments were made to other resources so that a timely restoration
8 could be accomplished. In contrast to Ivan, Gulf Power was able to
9 acquire more resources from a fewer number of companies, simplifying
10 the logistical support of those resources.

11

12 Q. Describe the logistical efforts required to support the additional outside
13 resources during the Hurricane Dennis restoration.

14 A. Ivan's impact was still evident and available lodging remained in short
15 supply. Therefore, Dennis presented additional opportunities for non-
16 traditional sleeping accommodations. Where available, staging sites with
17 buildings suitable for sleeping and feeding, such as the fairgrounds, were
18 preferred. It was necessary to erect a large tent city at Bronson Field to
19 accommodate the needs of the many outside workers that assisted with
20 the restoration.

21

22 Q. How did the company acquire the additional material necessary for the
23 recovery from Hurricane Dennis?

24 A. Additional materials were obtained from distributors and suppliers and
25 storm stock quantities were checked against the quantities used during

1 Hurricane Ivan. As they were with Ivan, local distributors were asked to
2 provide their in-stock quantities for emergency use. Gulf again worked
3 closely with the other Southern Company operating companies to identify
4 available material within Southern Company and to provide similar
5 assistance provided during Ivan.

6

7 Q. How did you scale down your restoration process?

8 A. As crews finished up in individual restoration areas, the CEMC worked
9 with the operations management in those areas to evaluate manpower
10 needs. If the resources were not needed in another restoration area they
11 were released to travel back home to their normal work location. If crews
12 were needed in another area, they were reassigned. Criteria such as
13 productivity; cost; return travel time; and specific equipment requirements
14 were considerations when deciding which crews to release first.

15 Releases were staged as restoration areas completed work.
16 Resources working in the Eastern and Central Districts of Gulf's service
17 area completed restoration first and were the first to be released, with the
18 exception of the teams moved to Navarre and Pensacola Beaches. The
19 majority of the releases occurred from July 15 to July 17. The CEMC was
20 deactivated on July 17 at 6:00 p.m. Crews assigned to work on the beach
21 areas were released on July 28 and 29.

22

23 Q. What were the total transmission and distribution costs, known and
24 estimated, to Gulf in responding and recovering from Hurricane Dennis
25 and what were the major components of those costs?

1 A. The total known and estimated cost of repairing the transmission and
2 distribution systems following Hurricane Dennis was \$57.1 million. Please
3 see Schedule 10 of Exhibit RJM-1 for a summary of restoration costs by
4 storm and by cost category. Please refer to the cost categories as
5 described earlier in my testimony.

6

7

8 Section IV – Hurricane Katrina – August 29, 2005

9

10 Q. Prior to Hurricane Katrina making landfall, what steps did Gulf Power take
11 to prepare for the hurricane's anticipated impact on the Company's
12 transmission and distribution systems?

13 A. Gulf Power began participating on conference calls with other SEE
14 companies on August 24 to discuss the potential impacts of this storm.
15 Again, the same pre-storm activities occurred as with Ivan and Dennis,
16 involving Public Affairs, the EOC interfaces, logistics preparations, and
17 others. Gulf also made calls to distribution line and tree trimming
18 contractors and other utilities to check on the availability of resources that
19 could help with the restoration effort. The CEMC was activated on
20 Saturday, August 27, at 7:00 p.m.

21

22 Q. Please describe Hurricane Katrina's impact on Gulf's transmission and
23 distribution systems.

24 A. Please see Schedule 8 of my exhibit for a map of Hurricane Katrina's
25 wind field over Gulf's service area. On August 29, Hurricane Katrina

1 made landfall as a Category 4 hurricane just east of New Orleans,
2 Louisiana, with sustained winds of 145 mph. Gulf Power experienced
3 tropical storm conditions for most of the day, with tides 4-6 feet above
4 normal. Service outages were predominately in the three western
5 counties of Gulf Power's service area: Escambia, Santa Rosa, and
6 Okaloosa. Peak outages were 129,832, over 30 percent of Gulf's
7 customers, and full restoration efforts began late in the afternoon of
8 August 29 as weather conditions allowed crews to work safely. Gulf
9 Power had 33 miles of transmission lines, 2 substations, 4 transmission
10 lines and 74 distribution feeder circuits out of service. Damage to the
11 overhead system was minimal with the majority of outages due to trees,
12 many of which had been damaged and weakened by Hurricanes Ivan and
13 Dennis, and other debris contacting the distribution lines.

14
15 Q. When was Gulf's transmission system restored and operational after
16 Hurricane Katrina?

17 A. Hurricane Katrina caused minimal damage to Gulf's transmission system.
18 Two substations were out of service and both were restored in less than
19 24 hours.

20
21 Q. How soon was Gulf able to restore the distribution system after Hurricane
22 Katrina?

23 A. Please see Schedule 9 of my exhibit for a restoration timeline. After the
24 initial assessment following the passage of the storm on the afternoon of
25 August 29, Gulf Power knew the restoration effort was going to be rapid.

1 Despite the number of customers without service, the damage to the
2 infrastructure was minor and Gulf Power brought in minimal outside
3 resources to assist with the restoration. Within 24 hours, power had been
4 restored to approximately 70 percent (90,000) of the customers who had
5 lost service. At the end of two days, Gulf Power's restoration was
6 essentially complete. Following discussions between Gulf's CEMC and
7 local operations management, all outside resources, as well as Gulf
8 Power storm teams, were released to travel and assist Mississippi Power
9 on Thursday, September 1.

10

11 Q. What were the resources used to accomplish the rapid recovery of both
12 the transmission and distribution systems in terms of labor, material and
13 logistics?

14 A. In order to complete service restoration, Gulf Power utilized over 400
15 outside labor resources to replace approximately 20 miles of wire, 50
16 poles and 170 transformers. Please see Schedule 11 of my exhibit for a
17 comparison summary of materials used. The logistics effort required was
18 minimal for Gulf's restoration following Hurricane Katrina.

19

20 Q. What sources did the Company rely on for acquiring the additional outside
21 labor used during the recovery from Hurricane Katrina?

22 A. In the case of Katrina, Gulf participated on mutual assistance conference
23 calls within the SEE group and within Southern Company. Gulf also
24 made calls to native distribution line and tree trimming contractors to
25 check on the availability of additional resources in the event they were

1 needed. When it became apparent that Gulf would not be severely
2 impacted by Katrina, the decision was made to handle the restoration with
3 Gulf Power crews, on site contractors, and Southern Company storm
4 teams. This enabled other outside resources to support areas that were
5 in the direct path of Hurricane Katrina.
6

7 Q. How did you scale down your restoration process?

8 A. Damage to Gulf's infrastructure was minimal and the restoration process
9 proceeded at a quick pace. Unlike most storms, Gulf only brought in a
10 small contingent of additional resources to assist with the restoration
11 effort. This was comprised of two storm teams from within Southern
12 Company. Gulf Power crews and contractors from other districts were
13 relocated to the hardest hit areas in Santa Rosa and Escambia Counties.
14 Due to the limited number of outside resources, and the brevity of the
15 restoration effort, there was not a formal release plan and schedule as is
16 typical with storm restoration. The restoration process was completed in
17 two days and all resources, as well as Gulf Power storm teams, were
18 released to assist Mississippi Power with their restoration on Thursday,
19 September 1. The CEMC remained active in order to support Gulf
20 Power's employees involved in the Katrina restoration efforts in
21 Mississippi. All costs associated with assisting Mississippi Power
22 Company will be paid by that utility. The CEMC was deactivated on
23 Friday, September 9, at 5:00 p.m.

24
25 Q. What were the total transmission and distribution costs, known and

1 estimated, to Gulf in responding and recovering from Hurricane Katrina
2 and what were the major components of those costs?

3 A. The total known and estimated cost of restoring the transmission and
4 distribution systems following Hurricane Katrina was \$4.0 million. Please
5 refer to Schedule 10 of my exhibit for a summary of restoration costs by
6 storm and by cost category. Please refer to the cost categories as
7 described earlier in my testimony.

8

9

10 Section V – Summary and Conclusion

11

12 Q. What were the primary differences between Hurricanes Ivan, Dennis and
13 Katrina in terms of the weather associated with each, the operational
14 impacts and resulting restoration?

15 A. While hurricanes Ivan and Katrina were similar in size over the Gulf, Ivan
16 was weakening at landfall when it moved ashore west of Pensacola.
17 Dennis was a very small hurricane compared to either Ivan or Katrina.
18 Hurricane Ivan moved ashore just west of the Alabama/Florida border.
19 Dennis moved ashore just to the east of Pensacola. Katrina moved inland
20 well to the west near the Mississippi/Louisiana border. Both Dennis and
21 Katrina were moving relatively quickly at landfall at 14-17 mph, whereas
22 Ivan was moving more slowly at 12-14 mph at landfall.

23 Both Ivan and Dennis were weakening at landfall, a fact that
24 contributed to a more rapid reduction in winds as the centers of these two
25 hurricanes moved inland. Katrina, on the other hand, had begun a

1 strengthening phase at landfall. That, combined with Katrina's relatively
2 fast movement, allowed Katrina to carry its stronger winds much farther
3 inland into Mississippi.

4 Ivan produced considerably more rain across the Florida
5 Panhandle than did either Dennis or Katrina. Over 15 inches of rain fell in
6 Pensacola. Dennis was a much smaller hurricane, and rainfall was
7 typically 5-7 inches across the Florida Panhandle. Katrina moved ashore
8 well to the west of Florida. Rainfall amounts with Katrina were generally
9 in the 2-4 inch range across the Florida Panhandle.

10 Of the 3 hurricanes, Katrina had, by far, the greatest storm surge,
11 though it did strike well west of Florida. East of Mobile Bay, Katrina
12 produced tides approximately 4-6 feet above normal across the western
13 Florida Panhandle, and approximately 3-5 feet above normal from
14 Panama City eastward to Apalachicola. The storm surge associated with
15 Hurricane Ivan was 10-15 feet along the coasts from Destin, Florida
16 westward to Mobile Bay/Baldwin County, Alabama. Dennis produced a
17 storm surge somewhat less than Ivan's at approximately 6-8 feet. This
18 storm surge covered a much smaller area than did Ivan's, due to Dennis'
19 much smaller wind field.

20 Hurricanes Ivan and Dennis were very similar in impact location,
21 although Dennis was a much smaller storm than Ivan and moved slightly
22 faster. The speed with which the Dennis passed also allowed Gulf to
23 begin the assessments and restoration efforts much more quickly. Unlike
24 Ivan, the fact that Dennis made landfall slightly east of Pensacola, and
25 that Dennis was considerably smaller than Ivan, lessened the severity of

1 damage to Escambia and Santa Rosa Counties.

2 Katrina made landfall well to the west of Gulf's service area and put
3 the system on the fringes of the impacted area. This minimized the
4 severity of the damage and allowed the restoration to proceed much
5 faster.

6 Even though these three storms each had unique characteristics,
7 the response to each was consistent. By implementing the storm plan,
8 which has proven to be strong, solid and well tested, Gulf Power
9 Company was able to manage the unique challenges that each storm
10 presented. Performing a thorough post-storm critique and modifying the
11 storm plan accordingly is an essential step in the restoration process.
12 This continuous learning process and adaptation is the reason that Gulf's
13 storm plan is so effective.

14

15 Q. How well did Gulf Power Company communicate with the public, outside
16 media, and state and local governmental officials?

17 A. Clearly communicating with customers as well as public officials became
18 vital after the severity of early storms in South Florida in 2004. Most
19 Northwest Florida residents had not experienced a large storm in ten
20 years, if at all. Also, lack of normal methods of communications following
21 Hurricane Ivan reinforced the importance of getting the word out to the
22 public regularly on a local, state, and national level. This was even more
23 important for Hurricane Dennis, when thousands evacuated out of the
24 area.

25 At least twice daily, outage and restoration numbers were provided

1 to the SEOC (6:00 a.m. and 4:00 p.m.). Those numbers were included in
2 news releases in which restoration progress was reported and restoration
3 estimates given. The news releases were published each morning in time
4 for county EOC briefings and also each evening in time for newscasts and
5 county EOC briefings. This communication was also sent to Company
6 management, storm team leaders and public officials.

7 All area media, public officials, and county EOC personnel are key
8 contacts for getting the word out about damage and restoration efforts. At
9 the beginning of each storm season, Company contact information, public
10 service announcements, brochures on storm survival and safety tips were
11 distributed throughout Gulf Power's service area. Gulf participated in
12 town hall gatherings and commercial storm readiness events for
13 Northwest Florida residents to answer questions, explain how devastating
14 a storm can be, and set expectations regarding extended power outages.

15 Beginning when a storm enters the Gulf of Mexico,
16 communications begin with customers; county emergency personnel;
17 elected officials; and employees. These communications are delivered
18 through Gulf Power websites; emails; faxes; personally delivered
19 handouts; press releases; and live and taped interviews.

20 After Ivan, Gulf Power's customers and public officials were
21 overwhelmingly supportive and thankful, as shown through recognition
22 received at numerous public events, as well as hand-written notes on
23 electric bills. After Dennis, the thanks and appreciation was very much
24 evident, although not as public as with Ivan, since the damage was not as
25 widespread. With Katrina, most of the attention turned toward actual

1 landfall areas outside of Gulf's service area almost immediately, so there
2 was little response to local restoration efforts.

3 Overall, customers have given continued support and appreciation
4 to Gulf Power as the area was hit with record rainstorms in the spring of
5 2005; Tropical Storm Arlene in early June; Tropical Storm Cindy; and then
6 Hurricanes Dennis and Katrina. In monthly surveys by phone of 100
7 random customers, Gulf Power has received some of its highest ever
8 Public Confidence Level scores. From a score of 84 in September 2004,
9 Gulf's Public Confidence Level climbed to a record score of 91 in
10 February 2005 and has remained in the mid to high 80s since.

11

12 Q. What, if any, major changes have been made to Gulf's storm plan as a
13 result of the impact of the Hurricanes Ivan, Dennis and Katrina?

14 A. Hurricane Ivan presented many opportunities for Gulf Power and the
15 storm plan proved to be very effective as evidenced by what was
16 accomplished during the restoration effort after Ivan. After Hurricane Ivan,
17 Gulf Power went through an exhaustive critique process which included a
18 CEMC management team critique, departmental critiques and an overall
19 Gulf Power critique. Southern Company conducted a critique and all
20 utilities in the SEE impacted by the storms in 2004 shared their lessons
21 learned with other member utilities.

22 Decision making, adaptability, and flexibility continue to be
23 strengths in how Gulf Power responds to a major storm. Along with these
24 strengths, the teamwork among the CEMC leadership, senior
25 management and executives was essential to the success shown in the

1 restoration from all three hurricanes. This was clearly illustrated through
2 the daily core team meetings that occurred each morning during the days
3 following each storm. The core team consisted of the Power Delivery
4 General Manager; CEMC manager; the Logistics Director; the Resource
5 Director; all of the functional team leaders; and all of the Company's
6 executives. These meetings allowed each area to share the
7 accomplishments of the previous day's restoration effort along with the
8 plans and goals for the coming days. At the same time, any functional
9 issues were discussed and addressed. These meetings were key to
10 providing the mutual support among all of the Company's storm functions
11 that facilitated the safe and swift restoration of service.

12 A few of the lessons learned include: improving internal
13 communications to the field on how the restoration process is proceeding;
14 acquiring additional evaluators, support, and staging site management
15 teams earlier in the restoration effort; refining alternative housing options
16 by assuming that all motels are damaged and not available; combining
17 the distribution line and tree trimming contractor coordination to ensure
18 administrative consistency; and decentralizing the Logistics function into
19 major field areas during storms.

20 Gulf Power was in the process of conducting the Hurricane Dennis
21 critique when Katrina hit; therefore, the critiques of the two storms are
22 being combined. Any recommendations for changes as a result of these
23 critiques will be included in the 2006 Storm Procedure Manual.

24
25

1 Q. In light of the three major hurricanes that Gulf has responded to since last
2 September, what is your assessment of how well the storm plan worked
3 and how did you come to your conclusions?

4 A. Overall, Gulf's storm plan worked extremely well and is a very solid plan.
5 Although Gulf will always take the opportunity to incorporate lessons
6 learned, the swift and safe success of all three restoration efforts is a
7 testimony to the validity of Gulf Power Company's storm plan. Even
8 though all three restoration efforts were different, the plan allowed the
9 flexibility to respond appropriately to the situation at hand.

10 Communications is one of the keys to a successful restoration, and
11 communications interruptions can be one the largest hurdles to overcome.
12 In most cases Southern Company's internal communications network,
13 SouthernLINC Wireless, has remained operational and provided the
14 communications needed to facilitate the restoration process. However,
15 the plan recognizes that there is no system that is immune from the
16 impacts of a hurricane, which is why Gulf's plan also calls for the use of
17 satellite telephones when other communications systems are inoperable.

18 A history of continuous learning from previous experience, along
19 with a focus on the importance of communications, has led to the
20 evolution of a storm plan that is capable of meeting Gulf's needs, even
21 when faced with the most devastating of storms.

22

23 Q. Does this conclude your direct testimony?

24 A. Yes.

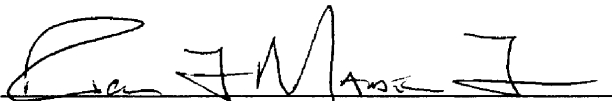
25

AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF ESCAMBIA)

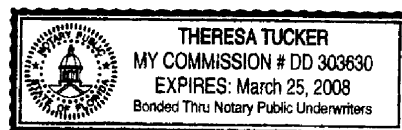
Docket No. _____

Before me the undersigned authority, personally appeared Richard J. Mandes, Jr., who being first duly sworn, deposes, and says that he is the General Manager in the Power Delivery Department of Gulf Power Company, a Florida corporation, that the foregoing is true and correct to the best of his knowledge, information, and belief. He is personally known to me.


Richard J. Mandes, Jr.
General Manager of Power Delivery

Sworn to and subscribed before me this 17 day of February, 2006.

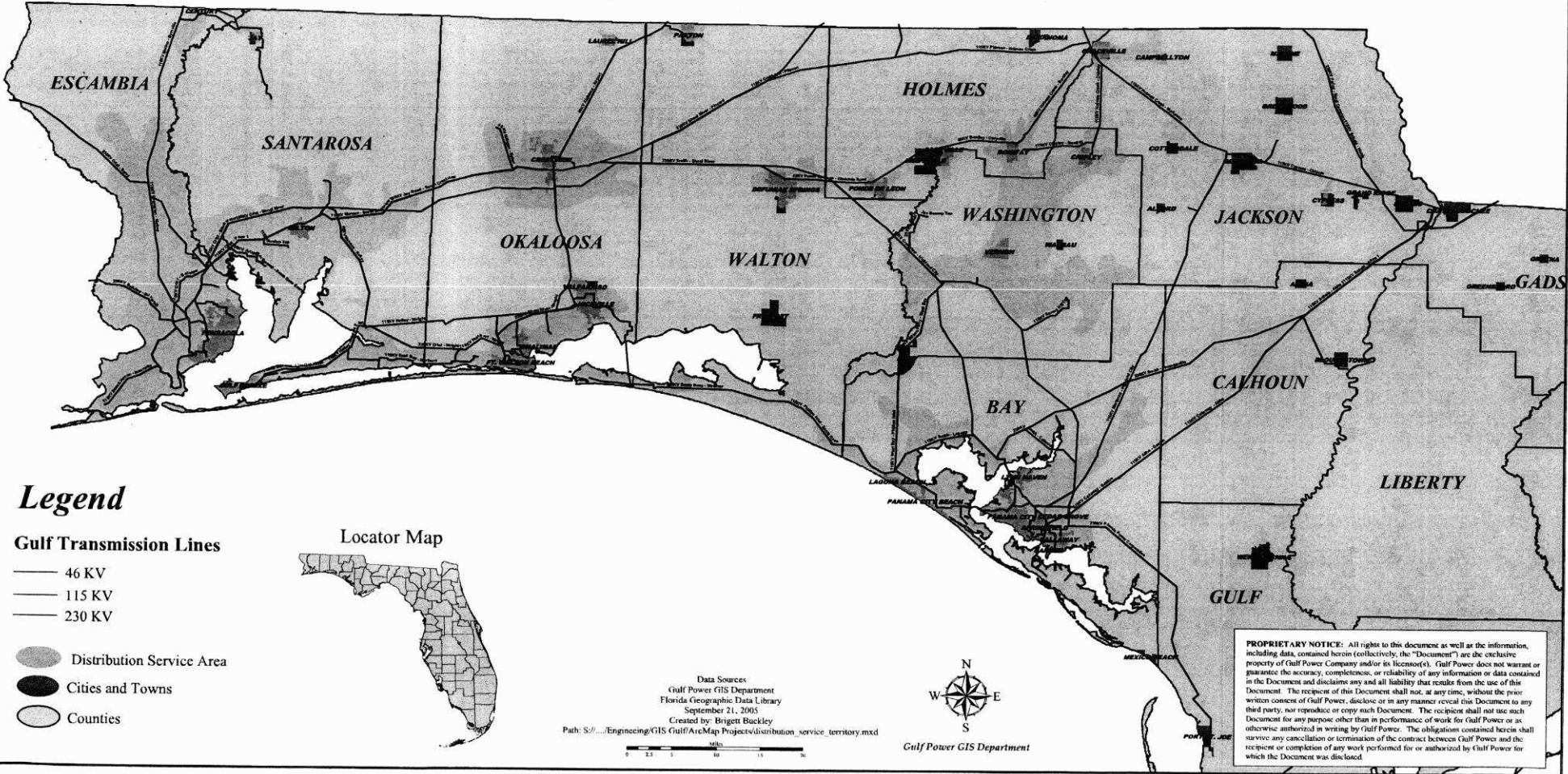

Notary Public, State of Florida at Large



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GULF POWER SERVICE TERRITORY



Legend

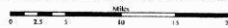
Gulf Transmission Lines

- 46 KV
- 115 KV
- 230 KV

- Distribution Service Area
- Cities and Towns
- Counties

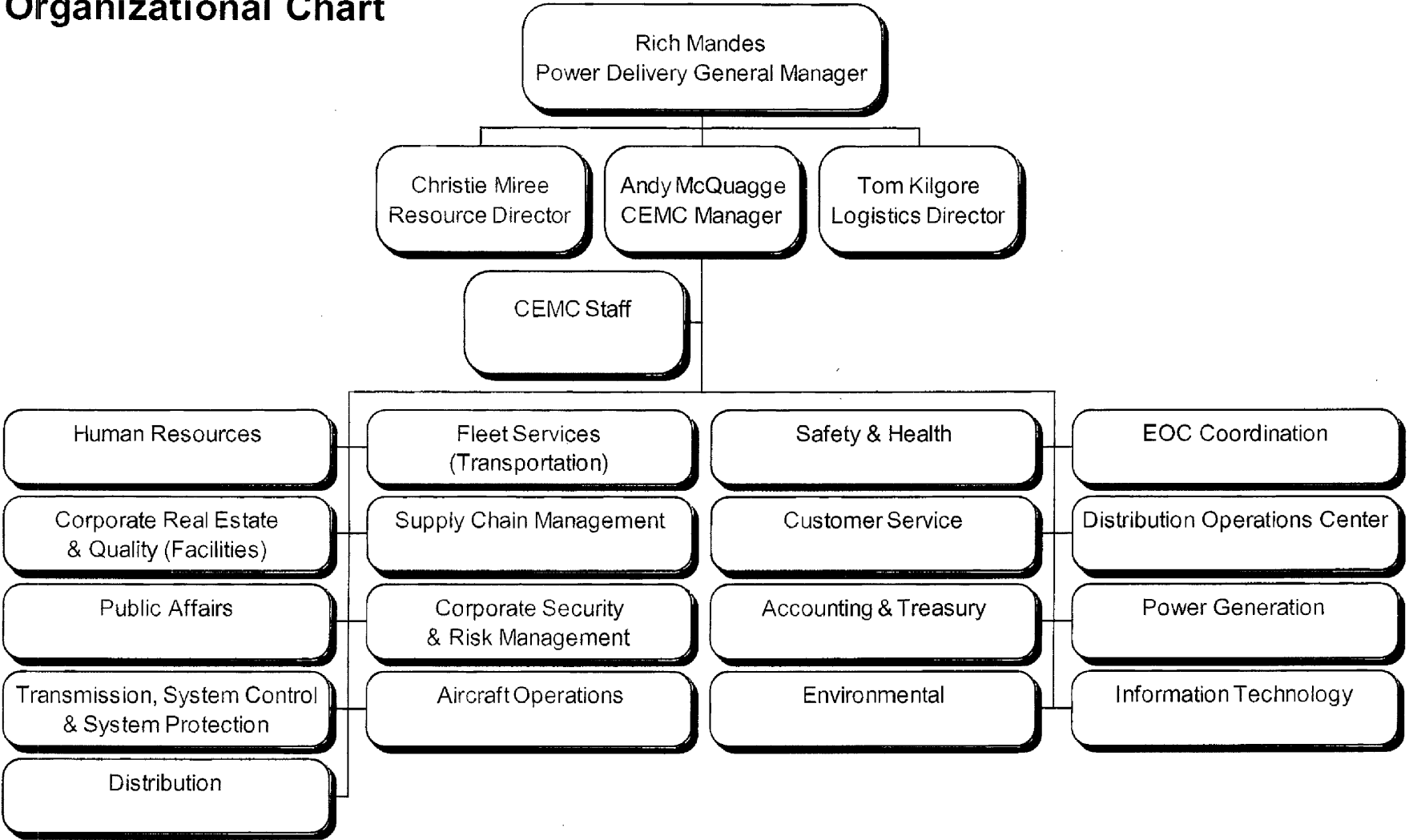


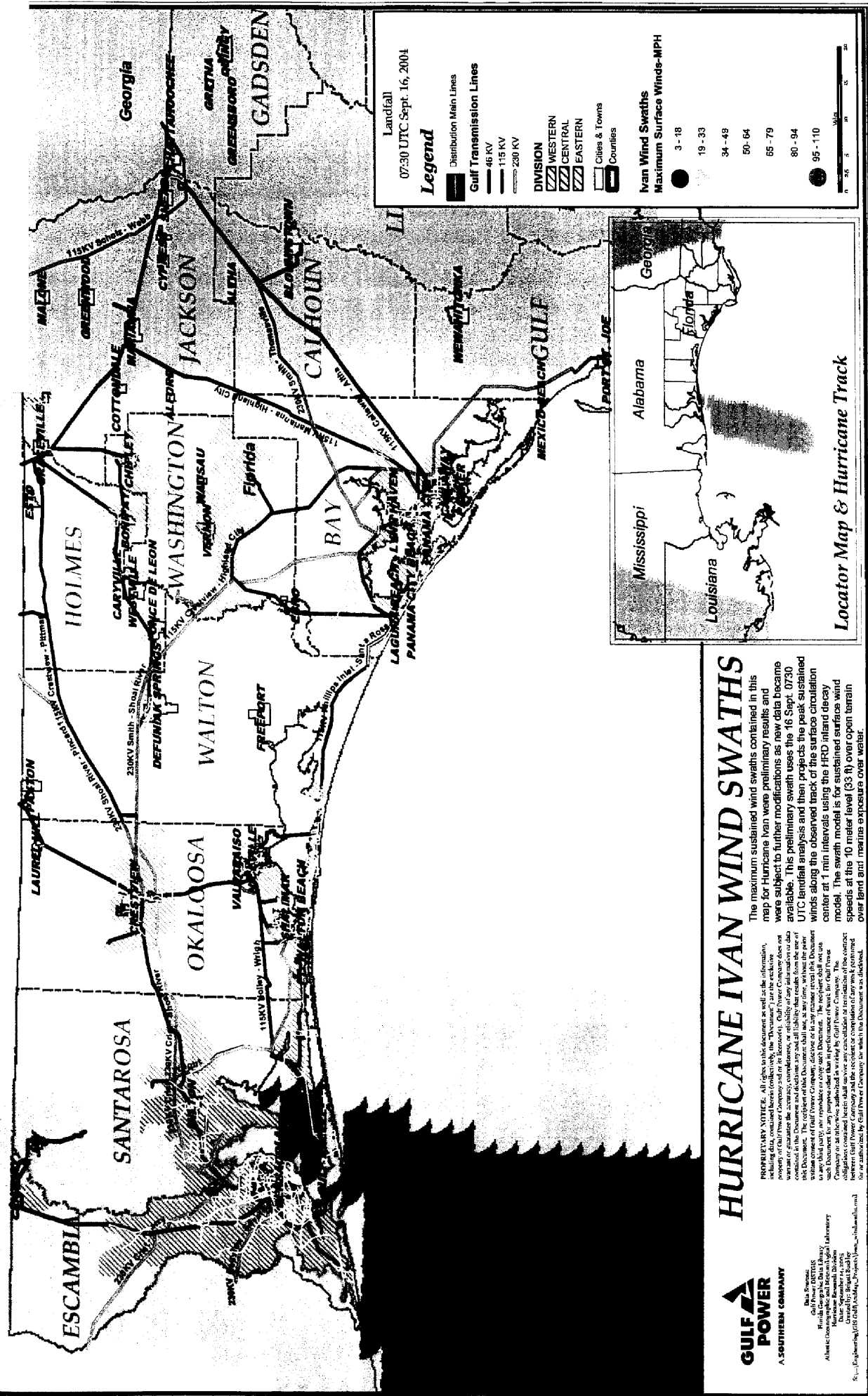
Data Sources
 Gulf Power GIS Department
 Florida Geographic Data Library
 September 21, 2005
 Created by: Brigett Buckley
 Path: S:\...Engineering\GIS Gulf ArcMap Projects\distribution_service_territory.mxd



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**Gulf Power Company
 Company Emergency Management Center (CEMC)
 Organizational Chart**





HURRICANE IVAN WIND SWATHS

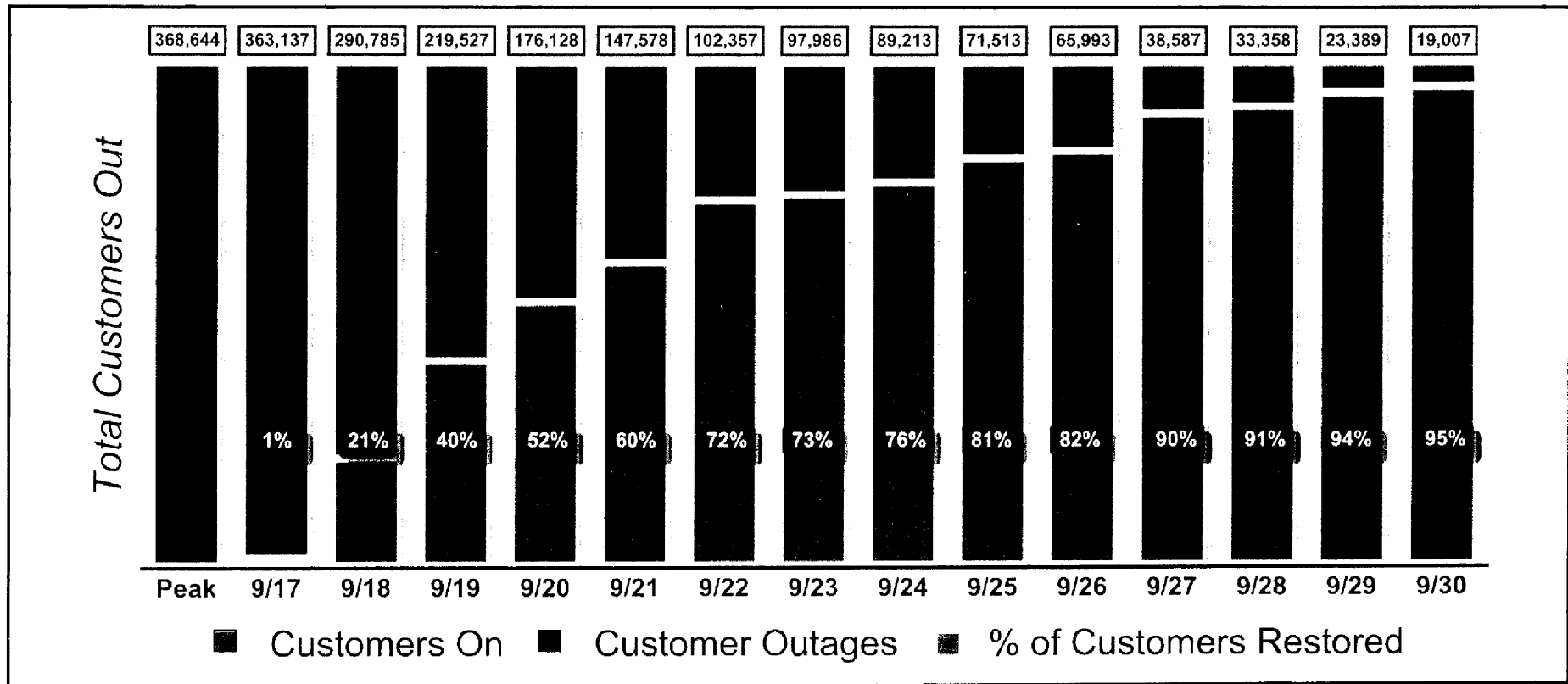
The maximum sustained wind swaths contained in this map for Hurricane Ivan were preliminary results and were subject to further modifications as new data became available. This preliminary swath uses the 16 Sept. 0730 UTC landfall analysis and then projects the peak sustained winds along the observed track of the surface circulation center at 1 min intervals using the HRD initial decay model. The swath model is for sustained surface wind speeds at this 10 meter level (33 ft) over open terrain over land and marine exposure over water.

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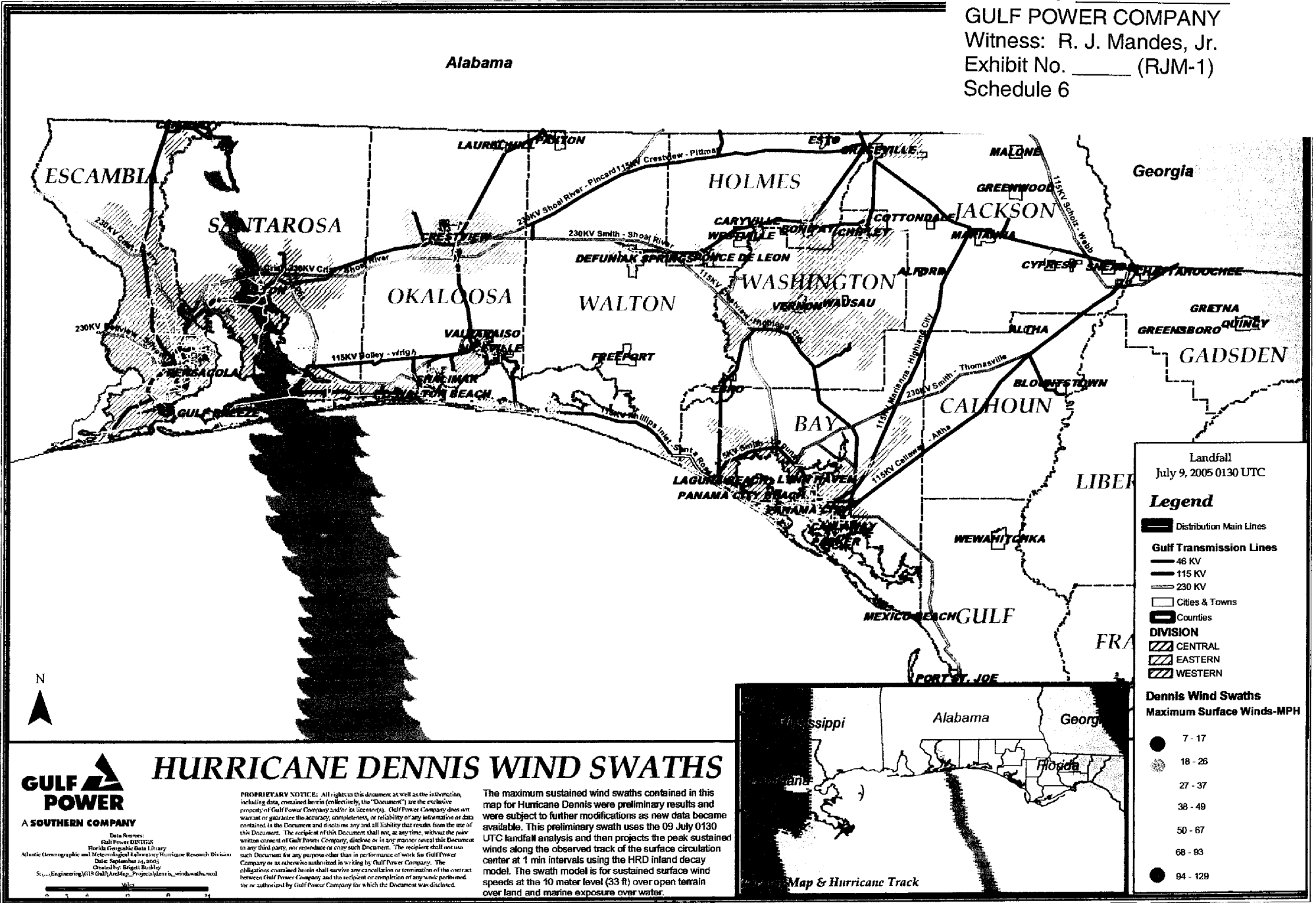
GULF POWER
 A SOUTHERN COMPANY

Data Source:
 Florida Geographic Data Library
 Atlantic Oceanographic and Meteorological Laboratory
 Date: September 14, 2005
 Prepared by: R. J. Mandes, Jr.
 Gulf Power Company, 11000 Highway 90, Panama City, FL 32379

Hurricane Ivan Restoration Timeline



Note: Peak Outage Represents Approximately 92% of Total Gulf Power Customers



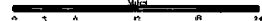
A SOUTHERN COMPANY

HURRICANE DENNIS WIND SWATHS

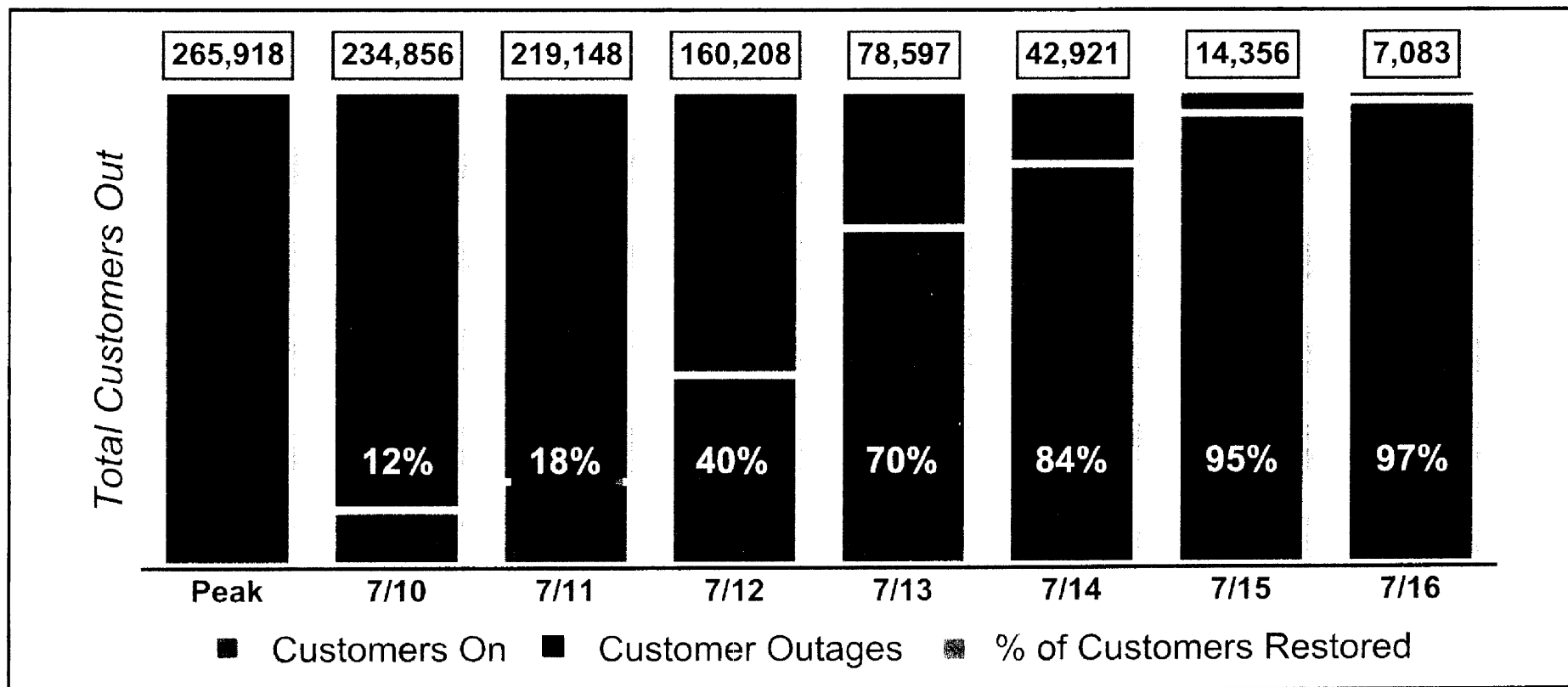
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The maximum sustained wind swaths contained in this map for Hurricane Dennis were preliminary results and were subject to further modifications as new data became available. This preliminary swath uses the 09 July 0130 UTC landfall analysis and then projects the peak sustained winds along the observed track of the surface circulation center at 1 min intervals using the HRD inland decay model. The swath model is for sustained surface wind speeds at the 10 meter level (33 ft) over open terrain over land and marine exposure over water.

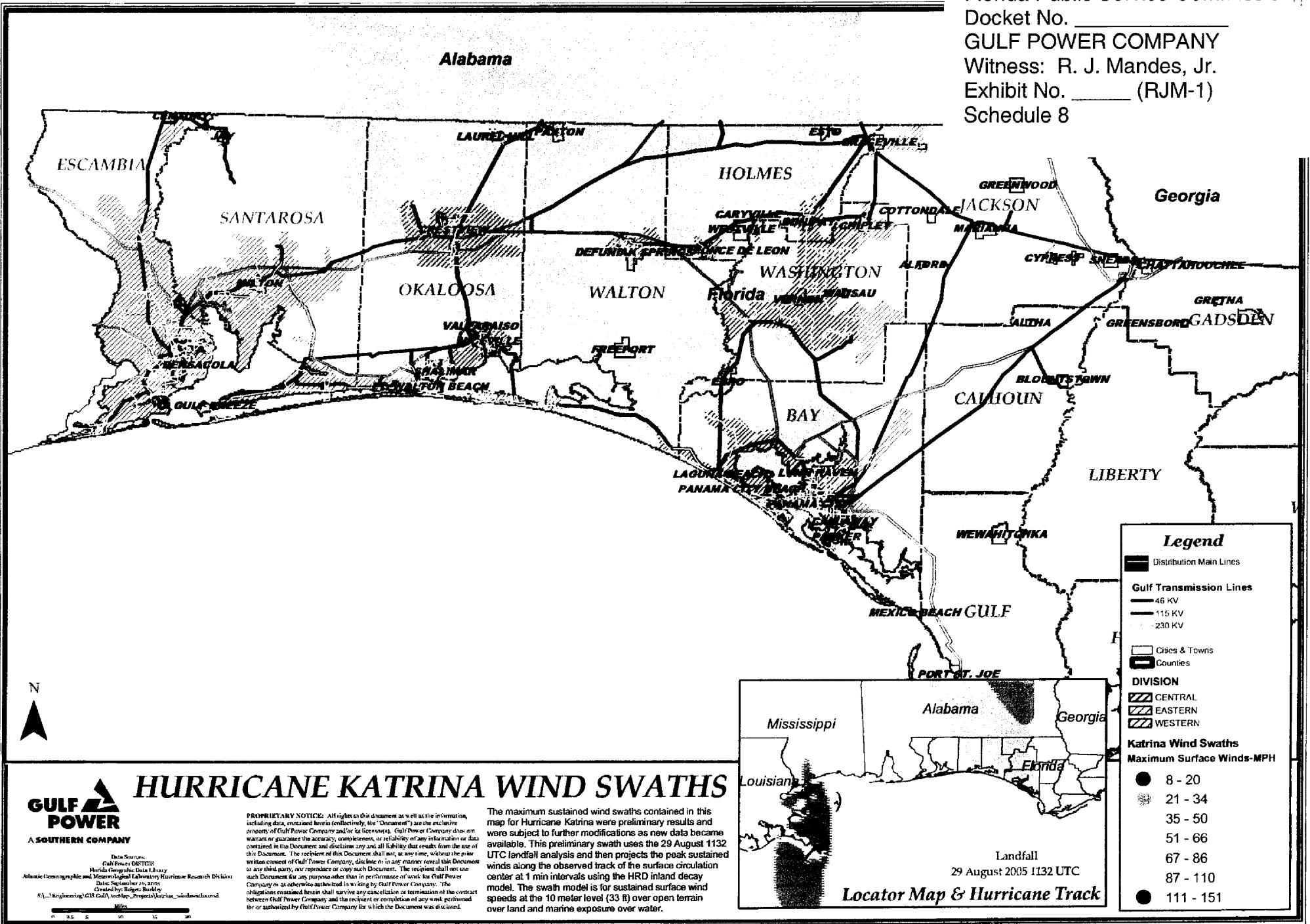
Data Sources:
 Gulf Power DISTGIS
 Florida Geographic Data Library
 Atlantic Demographic and Meteorological Laboratory/Marine Research Division
 Date: September 14, 2005
 Created by: Briquet Buckley
 Scale: Engineering (GIS Gulf Andlog, Project/Client: windswhathmod)



Hurricane Dennis Restoration Timeline

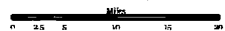


Note: Peak Outage Represents Approximately 66% of Total Gulf Power Customers

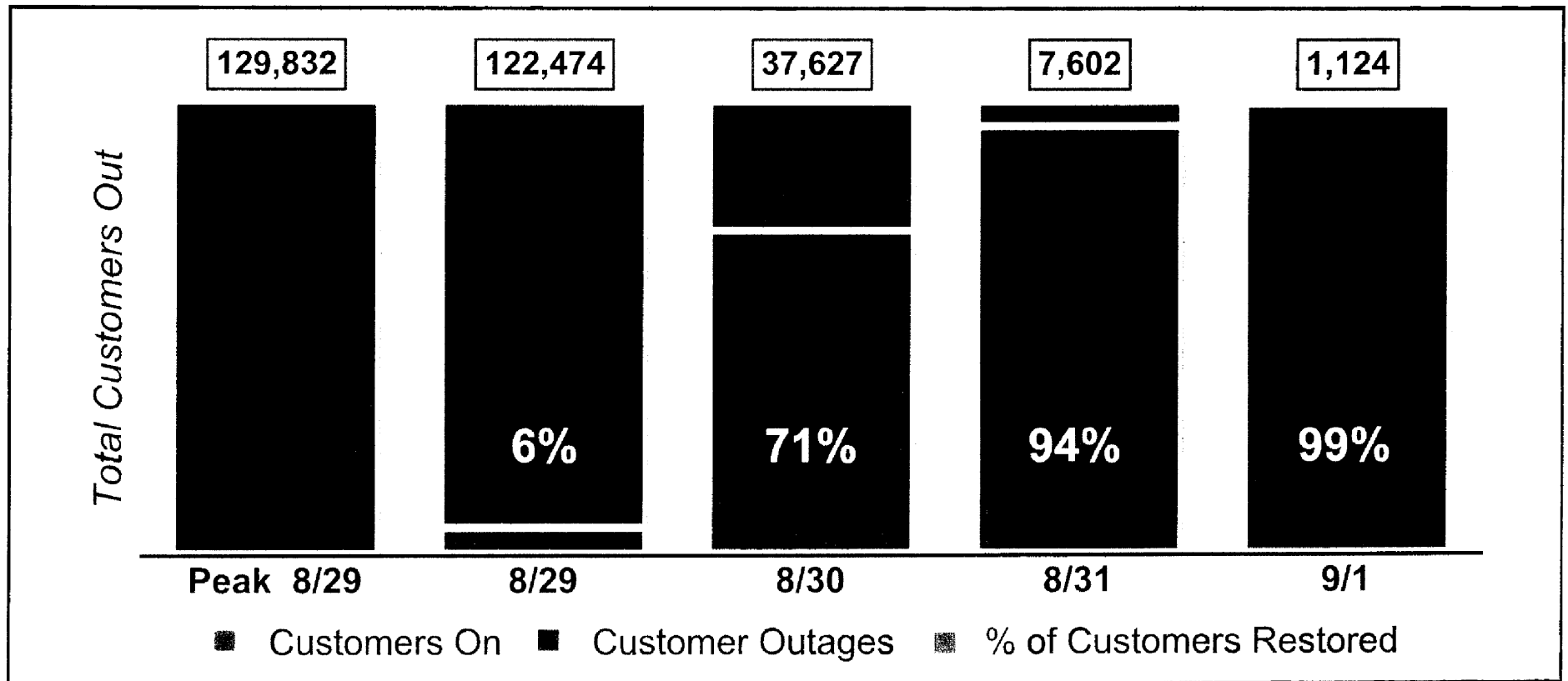


HURRICANE KATRINA WIND SWATHS

Data Sources:
 Gulf Power DISTRICTS
 Florida Geographic Data Library
 Atlantic Oceanographic and Meteorological Laboratory Hurricane Research Division
 Date September 16, 2005
 Created by Robert Burdick
 S:\...Engineering\GIS\GulfA\trch\Map_Projects\Katrina_windswaths.mxd



Hurricane Katrina Restoration Timeline



Note: Peak Outage Represents Approximately 33% of Total Gulf Power Customers

Hurricane Restoration Transmission and Distribution Costs by Storm and Cost Category

<u>Cost by Category</u>	<u>Ivan</u> ^(A)	<u>Dennis</u> ^(B)	<u>Katrina</u> ^(C)	<u>TOTAL</u>
1 External Costs including Contractors & Equipment	\$ 88,801,000	\$ 41,253,000	\$ 2,056,000	\$ 132,110,000
2 Food, Lodging, Transportation, & Other	\$ 14,044,000	\$ 9,470,000	\$ 375,000	\$ 23,889,000
3 Materials	\$ 9,335,000	\$ 2,777,000	\$ 530,000	\$ 12,642,000
4 Gulf Power Labor & Payroll Taxes & Benefits	\$ 7,796,000	\$ 2,647,000	\$ 973,000	\$ 11,416,000
5 Fuel	\$ 1,713,000	\$ 912,000	\$ 91,000	\$ 2,716,000
Total Transmission and Distribution	\$ 121,689,000	\$ 57,059,000	\$ 4,025,000	\$ 182,773,000

^(A) Based upon Known (\$120,578,000) and Estimated (\$1,111,000) cost in True-Up filed January 31, 2006

^(B) Based upon Known (\$56,211,000) and Estimated (\$848,000) cost

^(C) Based upon Known (\$3,586,000) and Estimated (\$439,000) cost

Florida Public Service Commission
Docket No. _____ -E1
GULF POWER COMPANY
Witness: R. J. Mandes
Exhibit No. _____ (RJM-1)
Schedule 10

STORM MATERIAL STATISTICS REPORT

	HURRICANE IVAN	HURRICANE DENNIS	HURRICANE KATRINA
PRIMARY WIRE ISSUED	230 MILES	99 MILES	11 MILES
SECONDARY WIRE ISSUED	128 MILES	35 MILES	9 MILES
NUMBER OF FUSES ISSUED	18513	20890	4236
NUMBER OF CONNECTORS ISSUED	221887	86548	3719
NUMBER OF ARRESTERS ISSUED	5303	2523	118
NUMBER OF CUTOUTS ISSUED	4585	1518	128
NUMBER OF POLES ISSUED	3976	642	49
NUMBER OF TRANSFORMERS ISSUED	3419	897	173

