



Energy Delivery Administration

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March 23, 1999

Via Airborne Express

Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

To whom it may concern:

As directed in the notice issued March 5, 1999, attached are Gainesville Regional Utilities' (GRU's) answers to the Year 2000 Readiness Workshop -- "Questions for All Electric Utilities and Natural Gas Utilities".

As the team leader of GRU's Y2K Task Force, I will be attending the Year 2000 Readiness Workshop on March 29. I will be accompanied by John Tisdale, Manager, Transmission and Distribution, and Y2K Task Force member.

If you need any additional information, please do not hesitate to contact me.

Sincerely,

David E. Beaulieu  
Assistant General Manger (Interim)

DEB:pl

Enclosure

cc: Y2K Task Force

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**Year 2000 Readiness Workshop  
March 29, 1999 – 9:30 a.m.  
Florida Public Service Commission  
Betty Easley Conference Center, Room 171  
4075 Esplanade Way -- Tallahassee, Florida**

**Questions for all Electric Utilities and Natural Gas Utilities – Gainesville Regional Utilities**

- 1) Has your utility bifurcated its Year 2000 remediation efforts between “mission critical” and “important” systems?

**GRU has bifurcated its Year 2000 remediation efforts between “mission critical” and “non-mission critical” systems.**

- 2) If your utility has bifurcated its remediation efforts, what functions (e.g., safety, generation, customer billing, accounting, payroll) make up the “mission critical” category? What functions make up the “important” category? Please describe how you distinguish between “mission critical” and “important” systems.

**GRU has defined as “mission critical” those systems or subsystems that, upon failure, could preclude or diminish the utility’s ability to deliver electric, gas, and telecommunications services or will place the safety of GRU’s customers, employees, or the general public at risk.**

**“Mission critical” systems: Generation, emissions monitoring, electric transmission, electric and gas distribution, energy management (AGC/SCADA), remote terminal units, and telecommunications.**

**“Non-mission critical” systems: Customer information and billing, financial, materials management, work management, and technical or other support applications.**

- 3) Has your utility prioritized its “mission critical” systems? If so, please provide the priority listing.

**All “mission critical” systems are of priority to GRU. Resources have been allocated to complete the remediation efforts necessary to bring all of these systems into compliance by June 30, 1999. A specific priority has been established with regard to generation plant remediation efforts. Sufficient and appropriate resources have been diverted to satisfy that work, which must be done in conjunction with annual plant shutdowns.**

- 4) What method are you using to test your mainframe computers? Please describe this method.

**GRU’s Digital Equipment Corporation (DEC) VAX, running a VMS 7.1 operating system, was tested for Year 2000 readiness during the remediation testing phase of our customer Billing Information System. The operating system dates were advanced to assess the following test points:**

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- (a) **September 9, 1999;**
- (b) **Automatic rollover from December 31, 1999, to January 1, 2000;**
- (c) **Automatic rollover from February 28, 2000, to February 29, 2000, to March 1, 2000 (leap year testing);**
- (d) **Automatic rollover from February 27, 2001, to February 28, 2001, to March 1, 2001 (non-leap year testing).**

5) What systems do you have running on mainframe computers?

**Technically speaking, GRU's systems do not run on mainframe systems. They typically reside on DEC VAX or DEC Alpha servers.**

6) What "mission critical" systems are not run on mainframe computers?

**Specifically, the following GRU systems do not run on a mainframe computer: Energy Management System (AGC/SCADA), generation plant control systems, gas distribution system SCADA, and the telecommunication monitoring system.**

7) What systems have you found that contain date-sensitive embedded chips?

**GRU has determined that the following systems have date-sensitive embedded chips:**

- a) **Kelly Unit 8 Boiler Control System – The Bailey Net90 system has seven (7) controllers, five (5) Model INCOM01 and two (2) Model INCOM02, which have embedded date-sensitive chips that are inaccessible. These controllers will be replaced.**
- b) **Six (6) PCs in Deerhaven Unit 2 controls for auxiliary systems have BIOS and clock chips, which are not Year 2000 compliant. These motherboards will be replaced.**
- c) **Two (2) PCs in the Deerhaven Gas Turbines 1, 2, and 3 have BIOS programs, which are not Year 2000 compliant. These BIOS programs will be replaced.**

8) Are embedded chips being tested both as a stand-alone device and as part of an integrated system? If not, why?

**Yes. Devices with embedded chips are being tested individually and as a part of an integrated system.**

- 9) Are all "mission critical" related mainframe computers, PC computers, and embedded chips being tested notwithstanding any vendor's or manufacturer's claim that the device is year 2000 compliant? If not, why?

**Yes. GRU is testing all "mission critical" mainframe computers, PC computers, and embedded chips capable of being tested by advancing system dates. Confirmation from a vendor of year 2000 compliance is used only as a flagging criteria for scheduling remediation and testing of any system or subsystem. Priority for the commitment of resources is given to those mission-critical systems that have been confirmed as being non-compliant.**

- 10) Are you conducting sampling tests instead of testing all of your systems? If you are conducting sampling tests, please describe the methodology you are using and explain how and why you selected this methodology.

**No. GRU is testing all "mission critical" systems.**

- 11) What precautions are you taking to ensure that "mission critical" communications links are not interrupted? Will these precautions be detailed in your contingency plan?

**GRU is investigating all "mission critical" voice and data communications links to ensure that they are Y2K ready. In that GRU is self-reliant with regard to its internal telecommunication and telemetry services, it has greater control and assurance that such systems have been thoroughly tested and are Y2K compliant. GRU is seeking assurances from its external communication providers that they will be Y2K ready. In addition, there are telecommunications contingency drills scheduled to verify the workability of GRU's backup communications plan should its primary links fail. These precautions and alternative action plans will be detailed in the utility's contingency plan.**

- 12) What dates, in addition to the millennium rollover, are being tested? Why?

**GRU is aware of the following dates which negatively affect the delivery of utility services:**

<b>Date</b>	<b>Description</b>	<b>Priority</b>
<b>April 8 &amp; 9, 1999</b>	<b>99<sup>th</sup> day of the year</b>	<b>3</b>
<b>August 21 &amp; 22, 1999</b>	<b>GPS clock rollover date</b>	<b>3</b>
<b>December 31, 1998, to January 1, 1999</b>	<b>Rollover to 1999</b>	<b>3</b>
<b>September 8 &amp; 9, 1999</b>	<b>090999 special value date</b>	<b>2</b>
<b>February 28 &amp; 29 to March 1, 2000</b>	<b>Leap Year</b>	<b>2</b>
<b>February 27 &amp; 28 to March 1, 2001</b>	<b>Non-Leap Year</b>	<b>2</b>
<b>December 31, 1999, to January 1, 2000</b>	<b>The Main Event</b>	<b>1</b>

In preparation for the January 1, 2000, rollover, GRU is participating in two Y2K readiness drills during the forthcoming year. These drills will be conducted internally and in conjunction with other utilities within the FRCC region. The dates for the exercises are April 9, 1999, and September 9, 1999.

- 13) Has your utility conducted or scheduled any contingency drills? If so, please indicate the purpose of each drill.

The purpose of the two scheduled FRCC/NERC coordinated drills mentioned in question 12 are as follows:

**April 9, 1999:** This drill will focus on personnel and communications. The drill will assume partial loss of voice and data communications and partial loss of EMS/SCADA functionality. Operating entities and security coordinators will be required to identify key operating facilities and information requirements. Properly trained personnel will be sent to key locations and will be required to identify and communicate critical operating information over backup communications systems. The goal is to demonstrate the ability to operate electric systems with limited voice and data communications and EMS/SCADA functionality.

**September 8-9, 1999:** This drill is expected to be a dress rehearsal for the rollover from December 31, 1999, to January 1, 2000. This drill may include reducing planned equipment and facilities outages, modified commitment of resources, re-dispatch of generation and transmission loading, cooperation with electric market participants, and staffing of all critical facilities. The goal would be to simulate system conditions and operating plans for the Y2K transition as closely as possible without increasing risks to personnel and equipment safety or system operating security.

In addition to these scheduled drills, routine blackstart tests have been conducted and will be repeated in the fall of 1999.

- 14) What "mission critical" systems and locations will be manned during the millennium rollover? Will these assignments be detailed in your contingency plan?

GRU will man the following "mission critical" facilities: The Electric System Control Center, transmission system tie stations, and generation facilities. In addition, all personnel routinely assigned disaster recovery duties will be placed on standby. All assignments will be detailed in GRU's contingency plan.

- 15) What is your company's internal deadline for testing and remediating the following:
- (a) Mainframe computers? **June 30, 1999**
  - (b) PC computers? **June 30, 1999 ("mission critical" systems)**
  - (c) Embedded chips on a system integration basis? **June 30, 1999 ("mission critical systems)**

- 16) What tests are you conducting to ensure that "non-mission critical" operations, which may not be Year 2000 complaint, will not inadvertently affect mission critical' operations?

**GRU's selected remedy for date/time data processing is the four (4) digit year method. Any system interfaced with GRU's "mission critical" systems must be able to process date/time data consistent with the IEEE definition of Y2K compliant. In addition, any system initially classified as "non-mission critical" that was found to have a potential adverse affect on a "mission critical" system (via integrated systems testing) was reclassified as "mission critical".**

- 17) Not applicable to GRU.

- 18) Is your natural gas distribution system SCADA-controlled? If so, can any embedded chip not Year 2000 compliant send an erroneous signal that can lead to an interruption in natural gas delivery?

**GRU's Gas Distribution System (SCADA) is predominantly a monitoring tool. There is but one control device, a valve on a low-pressure distribution loop. That control system has been tested and verified as being Y2K compliant. The parallel source for this loop is not SCADA controlled. Therefore, the potential for an erroneous signal to trigger a service interruption is nil.**