

# Independent Engineering Review of GRU's IRP Proposal

Gainesville Regional Utilities

November 15,2004

## **Purpose**

- R. W. Beck, Inc. ("R. W. Beck") was retained to prepare a high-level independent review of GRU's:
  - 2003 Integrated Resource Plan ("IRP") &
  - 2004 Sensitivity Case Matrix

### **Qualifications**

- Founded in 1942 62 Years
- 19 Offices in U.S. 450 People
- Orlando Office 35 Years
- Have Provided Services To All FL Municipals
- Strong national client base of municipal utilities
- Provided independent engineering reviews to banks and generation developers for projects valued in excess of \$30 billion combined



# **Personal Experience**

- Principal with R. W. Beck
- Professional Engineer in three states
- Over 30 Years Experience with Infrastructure Planning
- Corporate Planning Engineer for Large Midwest IOU
- Have worked for numerous municipals on Power Supply and IRP projects



# **Scope of Review**

- Independent Assessment of Assumptions and Methodologies
- Review for Reasonableness
- Suggest Revised Assumptions
- Recommend Additional Work or Further Indepth Review, if Warranted



# **Major Areas of Review**

- Basis for the Load Forecast
- Effects of Conservation
- Generating Reserve Requirements
- Fuel Price Forecast and Certain Environmental Matters
- Technology Screening
- Electric Generation Economic Analysis



### **How We Conducted Review**

- Reviewed History Leading up to IRP Proposal
- Reviewed Documents and Analyses Supplied by GRU
- Conducted Interviews with Members of the GRU Staff
- Requested that GRU Run Certain Cases

#### **Conclusions**

Based on our review of the 2003 IRP Proposal, the 2004 Sensitivity Case Matrix, other supporting documents supplied by GRU and discussions with GRU, R. W. Beck has the following conclusions:

### **Conclusions**

Conclusions are provided relating to the following topics:

- Load Forecast Methodology
- 2. DSM Analyses
- 3. Capacity Reserve Criteria
- 4. CFB Fuel Mix
- 5. Base Fuel Price Forecast
- 6. High and Low Band Fuel Price Forecast

## Conclusions (continued)

- Assumptions Regarding Capital Costs, O&M Costs and Operating Parameters for Major Alternatives
- 8. Modeling Methodology
- 9. Technology Screening
- 10. Financial Assumptions
- 11. Robustness of the 2004 IRP Proposal
- 12. Emission Impacts
- 13. Recommended Additional Cases