APRIL 9, 1999
NERC Y2K DRILL
EVALUATION SUMMARY
Sierra Pacific Power Co.

1. Briefly describe the scenario(s) used in your drill.
Sierra simulated the loss of primary voice and data communications with two SPP sites: Valmy power plant (two units, 522 MW) and Humboldt substation (intertie point with Idaho Power Co.). Sierra also simulated loss of data and voice communications with the Pacific Northwest Security Coordinator (PNSC) and the Idaho Power Company (IPC) control center.

2. What back-up communication systems were used during the drill?
For the various sites, Sierra used varied communications medium:

a. Sierra to PNSC: NV Bell phone circuit and cellular phone (i.e., non-Sierra communication paths)
b. Sierra to Valmy: NV Bell phone circuit and cellular phone (i.e., non-Sierra communication paths)
c. Sierra to Humboldt: Cellular phone and truck radio
d. Sierra to IPC: NV Bell phone circuit and "ring-down" phone

These circuits were used in various combinations to test designated primary and back-up communications channels with each location.

3. What types of essential sites and facilities were included in the drill?
The two essential sites included in the drill were Sierra's largest power plant and the strongest intertie with another control area, IPC. Information from these two sites were used by Sierra and also forwarded onto PNSC or IPC.

4. How many people directly participated in this drill from your system? How many additional people supported the design, development, implementation, and evaluation of this drill?
Sierra had two people from the Electric System Control Center (ESCC), one person at Valmy power plant and one person at Humboldt substation. Five other people assisted in the design and implementation of the drill. One drill participant also completed the drill evaluation.

5. Did this drill meet your objectives?
The drill objectives (manually gather/transmit data vital to transmission grid reliability) were met.

6. What improvements do you anticipate may be made to communications systems and procedures as a result of the drill?
Part of the Sierra Pacific Y2k transmission system contingency plan calls for the ability to gather critical data for ensure transmission grid reliability, even after a double contingency outage. For expediency, the alternate communication medium was cellular phones. Sierra does not think that cellular phone service is a prudent alternate plan. Therefore, Sierra has plans to procure satellite phones for some critical locations as back-up communications.

7. What did your organization learn from this drill?
Cellular phones are not a reliable back-up communications tool. Some sites do not have all the meters in-place to gather essential data. Sierra's contingency plant calls for additional staff at more locations who should be able to provide all critical data.

Sierra Pacific
POWER COMPANY

www.sierrapacific.com

6100 Neil Road, P.O. Box 10100, Reno, Nevada 89520-0024 • 702.689.4011

March 15, 1999

Brian Schumacher
Y2K Coordinator
California Public Utilities Commission
505 Van Ness Ave., Rm. 4000
San Francisco, CA 94102

RE: Resolution M-4792

Sierra Pacific Power Company hereby submits its quarterly update to the survey and checklist that was attached as Exhibit 1 Resolution M-4792. This submission is an update to the survey and checklist filed as of December 15, 1999.

If additional information is required, please do not hesitate to call Gene Williams at (775) 834-3564, or e-mail at gwilliams@sppc.com.

Sincerely,

Gene Williams
Manager, Regulatory Services

Attachment

California Public Utilities Commission
Year 2000 Program Assessment Checklist & Survey for Jurisdictional Companies

Company Name: **Sierra Pacific Power Company**

Address: **6100 Neil Road, Reno, Nevada 89520-0400**

Type of Utility: **electric, gas, and water**

Utility No.

Name of individual with primary responsibility for addressing the Year 2000 problem in your company:

Wally Walsh

Title: **Y2K Project Manager**

Address: **6100 Neil Road, Reno, Nevada 89520-0400**

Telephone No.: **775-834-4151**

Fax No.: **775-834-4590**

Email address: **WWALSH@SPPC.COM**

PLEASE DIRECT YOUR RESPONSES TO THE APPROPRIATE INDUSTRY

DIVISION AT THE CPUC, ATTENTION Y2K COORDINATOR

Preliminary Questions

If the company's ONLY computerized systems are related to billing or other administrative tasks, please check this box, STOP HERE and return this page.

[X] **If the company has computerized service delivery systems under its control, please complete the remainder of this survey.** For the purposes of this question, include embedded systems necessary to delivery of the utility services you provide. If *you do not* know whether you have embedded systems necessary to delivery of the utility services you provide, please complete the remainder of this survey.

I certify that the responses provided to this survey are true and correct, and that I have the authority to represent the company on these issues.

By: **Wally Walsh**
Title: **Y2K Project manager**
Company: **Sierra Pacific Power Company**

Modeled primarily on the U.S. GAO's Year 2000 Program Assessment Checklist

For each question below which requires a "yes" or "no" answer, please check the corresponding box if your answer is "yes". For questions which require an additional response, please provide your responses on separate sheets of paper.

Awareness

Has the company **defined and documented** the potential impact of the Year 2000 problem? Please provide a summary of these efforts to the CPUC.

Sierra has detailed the potential impacts in its Security and Exchange Commission (SEC) quarterly report available on Sierra's web site *www.sierrapacific.com.* An updated 1998 10K has been filed with the SEC.

Has the company conducted a Year 2000 awareness campaign with respect to:

Employees? **Yes, through its weekly publication to employees and through employee meetings.**

Customers? **Yes, through mailings and face to face contact. A Y2K bill insert was sent to all customers During the month of February 1999.**

Vendors? **Yes, through mailings and planned face to face meetings. Have conducted face to face and Teleconference calls to major suppliers to assess their Y2K readiness.**

Please summarize your efforts and provide the CPUC with copies of sample documentation relating to any such awareness campaign which could be helpful to an evaluation of your effort.

Has the company assessed the adequacy of its program management policies, capabilities, and practices, including configuration management, program and project management, and quality assurance?

Yes, the company hired Y2K engineering consultants for its embedded systems project and used a combination of Sierra Pacific Power Company staff and programming consultants for its business systems.

Has the company developed and documented a Year 2000 strategy? Please summarize your strategy.

The company developed and strictly adheres to rigid methodology that includes a thorough inventory and assessment, consistent code control standards, three phase testing, and implementation.

Is the Year 2000 strategy supported by executive management?

Yes, we have had strong management support throughout the project.

Has the company established an executive management council or committee to guide the Year 2000 program?

Yes, we report to them monthly on the status of the Y2K project. Y2K status is reviewed Quarterly with Sierra Pacific Power Company's Board of Directors.

E) Has a program manager been appointed and a Year 2000 program office been established and staffed?

Yes, Wally Walsh is the program manager 775-834-4151

Who is the manager and what is his/her title and level in the company?

Wally Walsh Year 2000 Project Manager.

How many employees and contractors are dedicated to this effort?

Six for the business systems and between 10 and 20 for the embedded systems.

When did you begin your effort to become Year 2000 compliant and what is your estimated completion date for your compliance plan?

The project began in March of 1996 and we expect business systems to be complete by March 1999 and embedded systems by October 1999.

Summarize the resources you anticipate will be necessary for your company to remedy your Year 2000 issues.

Between 10 and 20 people made up of Sierra Pacific Power Company staff and contractors.

Has the company identified technical and management points of contacts in core business areas?

Yes, we named "Champions" for each of our critical areas of electric generation, gas, water, transmission and distribution, facilities, IT infrastructure, telecommunications, and systems control.

Does your particular industry have an organization that is providing Y2K guidance and information? If so, please identify the organization.

Yes, NERC, the North American Electric Reliability Council. We will be participating in the NERC/WSCC sponsored Y2K drills in April and September 1999.

Has the company defined Year 2000 compliance?

Yes.

Please provide your definition.

Y2K Compliant is defined as:

- The hardware/software will process ***Date/Time Data*** without error or interruption. This includes any errors or interruptions from functions which may involve the processing of ***Date/Time Data***, from more than one century; and or leap year.

Note: **When used in this context, the term *"Date/time Data"* shall mean any data or input which includes an indication of or reference to date/time. This includes, but is not limited to, date calculation and manipulation, input and output of date information, screen formats, reports, date/time related sorting, etc.**

Describe what tests or standards your company uses to determine "Y2K compliant" status.

We have performed unit, system, regression, and Y2K date specific tests.

Has the company defined Year 2000 readiness?

Yes

Please provide your definition.

Year 2000 Ready is defined to mean that systems may have been programmed to use a windowing pivot year to determine if a date is prefixed with 19 or 20. It may also include embedded systems that have a clock function that is not Y2K compliant but testing has determined that the Y2k error does not effect the operation of the device. However, all Y2k ready systems will perform their functions through and over the rollover from 12/31/99 to 01/01/00 and will also function over the leap rollover.

Describe what tests or standards your company uses to determine "Y2K ready" status.

We have performed unit, system, regression, and Y2K date specific tests.

Do you (or does your parent company) have a Year 2000 Compliance statement?

Yes, attached.

If so please attach. If not, do you plan to have one in the future? When?

What is the date at which you expect to be fully Year 2000 ready?

June 30, 1999

What is the date at which you expect to be fully Year 2000 compliant?

June 30, 1999

Has the company identified core business areas and processes?

Yes

Has the company assessed the severity of potential impact of Year 2000-induced failures for core business areas and processes? Please describe such potential impacts and the respective severity of each.

Yes, as mentioned in our SEC filing (attached)

Has the company conducted a comprehensive enterprise-wide inventory of its information systems?

Completed for business systems in January 1977 and August 1998 for embedded.

The company has:

system inventory listing components and interfaces for each system
comprehensive plan to identify and eliminate obsolete code

Yes to the above questions.

Has the company developed a comprehensive list of automated systems?

Yes, we have completed a complete inventory.

The company 's list identifies:

links to core business areas or processes
platforms, languages, and database management systems
operating system software and utilities
telecommunications
internal and external interfaces
owners
the availability and adequacy of source code and associated documentation

Yes, to all of the above.

Has the company analyzed its automated systems and identified for each system?

non-repairable items (lack of source code or documentation)
conversion or replacement resources required for each platform, application, database management system, archives utility, or interface

Yes, to all of the above.

Has the company prioritized its system conversion and replacement program?

The company's prioritization process includes:

service delivery systems prioritized ahead o billing and administrative systems
ranking by business impact ranking by anticipated failure date
identification of applications, databases, archives, and interfaces that cannot be converted because of resource and time constraints

Yes, to all of the above.

Has the company established Year 2000 project teams for business areas and major systems?

Yes

Has the company developed a Year 2000 program plan?
If so, please provide the CPUC with a copy of the plan.

The company's program plan includes

Schedules for all tasks and phases
master conversion and replacement schedule
assessment and selection of outsourcing options
assignment of conversion or replacement projects to project teams
risk assessment
contingency plans for all systems

Has the company identified and mobilized required resources and capabilities? Please describe

9 contract programmers were hired to address the business systems. Sierra staff and contract engineers are working on the embedded systems.

Has the company developed validation strategies and testing plans for all converted or replaced systems and their components?

Yes, it is part of our methodology.

Has the company analyzed and identified requirements for a Year 2000 test facility?

NO, all testing is being done on-site.

Has the company identified and acquired Year 2000 tools?

Yes, from PLATINUM Technologies.

Has the company considered implementation scheduling issues?

The company's program plan addresses:
where conversion will take place (data center or off-site location)
time needed to place converted systems into production
conversion of backup or archived data

Yes to all of the above.

In priority order identify the top twenty hardware and the top twenty software systems for whose operation your company is responsible that directly and immediately support the utility services you offer.

.Sierra's Customer Information System (SCIS)
.Inventory/Stores
.Accounts Payable/Purchasing
.Time Reporting
.Contract Refund
.Electric Outage
.Major Customer
.Power Plant Security

.Power Plant Personnel
.Pole Inventory
.Right of Way
.Hot Stick
.Gas Valve Maintenance
.Power Plant Maintenance
.Construction Budget
.General Ledger Detail
.Work order estimation
.Table Maintenance
.Standards
.Labor Management
.Core GL upgrade (as of 7/18/98)
.Construction Management Systems (CMS)
    .Cost Management
.Finance Systems
    .Post GL
    .Allocations
    .PDS upgrade
      IVR upgrade

For each of the systems identified in response to the prior question, provide your company's assessment of its Year 2000 compliance, identify components of the systems that are internally produced and those that are not internally produced.

.Sierra's Customer Information System (SCIS)	internally
.Inventory/Stores	internally
.Accounts Payable/Purchasing	externally
.Time Reporting	internally
.Contract Refund	internally
.Electric Outage	internally
.Major Customer	internally
.Power Plant Security	internally
.Power Plant Personnel	internally
.Pole Inventory	internally
.Right of Way	internally
.Hot Stick	internally
.Gas Valve Maintenance	internally
.Power Plant Maintenance	internally
.Construction Budget	internally
.General Ledger Detail	internally
.Work order estimation	internally
.Table Maintenance	internally
.Standards	internally
.Labor Management	internally
.Core GL	
.Construction Management Systems (CMS)	internally
.Cost Management	
.Finance Systems	
.Post GL	internally
.Allocations	internally
.PDS upgrade	externally
IVR upgrade	externally

For each of the systems identified in response to the prior question that are not assessed as Year 2000 compliant, set forth your schedule for (a) initiating remediation or replacement; (b) unit testing of compliance; (c) internal system integration testing for compliance; and (d) where appropriate, testing with interconnecting utilities. Explain the transactions that will be

used in conducting those tests. Identify any systems *which you* intend to make Year 2000 ready but do not intend to make Year 2000 compliant, and explain why. Of these systems, identify the systems which are currently year 2000 ready, and set forth your schedule for making the remaining systems year 2000 ready.

All of the above systems will either be Y2K ready or compliant by the 1st quarter of 1999.

For each of the systems identified in response to the prior question that are not assessed as Year 2000 compliant or Year 2000 ready, set forth your schedule for (a) developing contingency plans in case remediation plans are delayed or fail, including failure just before or after the change in date to the year. 2000, and including the leap year date of February 29, 2000; and (b) testing of those contingency plans.

Existing contingency plans are under review and will be updated for Y2K issues. We expect to have this Activity complete by June 30, 1999.

Has the company addressed interface and data exchange issues?

The company has

analyzed dependencies on data provided by other organizations
contacted all entities with whom it exchanges data
identified the need for data bridges or filters
made contingency plans if no data are received from external sources
made plans to determine that incoming data are valid
developed contingency plans to handle invalid data

Yes, to all of the above.

In assessing potential Y2K problems, which of the following best describes the anticipated impact for your utility operations?. (check one) please add additional information where appropriate:

[X] We will identify and correct all Y2K problems before Jan. 1, 2000.

We will be 100% compliant and/or ready sometime after Jan. 1, 2000 with no significant disruptions to service or billing.

We will be 100% compliant and/or ready sometime after Jan. 1, 2000 with some significant disruptions to service or billing.

We will be 100% compliant and/or ready sometime after Jan. 1, 2000 but our assessment is not accurate enough to identify all problems that may significantly affect service or billing.

We are not following a compliance plan that calls for prior assessment of potential Y2K problems.

What is your plan for monitoring for potential problems after January 1, 2000?

There will be dedicated staff on site to address any Y2K related fallout.

Has the company initiated the development of contingency plans for critical systems?

Existing plans are under review and will be enhanced for Y2K issues.

Please provide a copy of your contingency plan.

Does the impact assessment document identify Year 2000 vulnerable systems and processes outside the traditional information resource management area that may affect the company's operations? Please provide the CPUC with documentation of such identified impacts.

The assessment document addresses the impact of potential Year 2000 induced failure of telecommunication systems, including telephone and data networks switching equipment building infrastructure

Sierra Pacific Power Company's Y2K efforts include traditional business systems and embedded systems Including:

Electric generation
Transmission and distribution
Gas
Water
Telecommunications
Facilities
IT infrastructure

All systems have been inventoried and impact assessed.

Renovation

Is the company meeting its budget and schedule in the conversion of targeted applications, platforms, databases, archives, or interfaces?

Yes

Is the company meeting its budget and schedule in developing bridges and filters to handle non-conforming data?

Yes

Is the company meeting its budget and schedule in the replacement of targeted applications and system components?

Yes

Is the company documenting all code and system modifications and using configuration management to control changes?

Yes

Is the company scheduling unit, integration, and system tests?

Yes

Is the company meeting its budget and schedule in eliminating targeted applications and system components?

Yes

Is the company communicating the changes to its information systems to all internal and external users?

Yes

Is the company tracking the conversion and replacement process and collecting and using project metrics to manage the conversion and replacement process?

Yes

Is the company sharing information among Year 2000 projects?

Yes

The company is disseminating

"lessons learned"
best practices

Yes

What actions remain to be taken for your computer hardware to be fully Year 2000 compliant?

A few personal computers remain to upgraded and will be before 1/1/2000.

What actions remain to be taken in order for your infrastructure to be fully Year 2000 compliant?

Hardware upgrades are scheduled to be complete by the 1st quarter 1999.

What actions have you taken to identify and test embedded chips within your infrastructure?

These steps are part of our Y2K embedded systems methodology.

What specific embedded chip Year 2000 problems have you found and in what way could they affect the services you provide?

Embedded systems that could be impacted by faulty microchips have been inventoried, impact Assessed and will be made Y2K ready or compliant by October 1999.

Validation

Has the company developed and documented test and validation plans for each converted or replaced application or system component?

YES

Has the company developed and documented a strategy for testing contractor-converted or replaced applications or system components?

YES

Has the company implemented a Year 2000 test facility?

NO

Has the company implemented automated test tools and scripts?

YES

Has the company performed unit, integration, and system tests on each converted or replaced component

The company's testing procedures include the following types of tests

regression
performance
stress
forward and backward time

YES

Is the company tracking the testing and validation process and collecting and using test metrics to manage the testing activities?

YES

Has the company initiated acceptance tests?

YES

Implementation

Has the company defined its transition environment and procedures?

YES

Has the company developed and documented a schedule for the implementation of all converted or replaced applications and system components?

YES

Has the company resolved data exchange issues and inter company concerns?

YES

Has the company dealt with database and archive conversion?

YES

Has the company completed acceptance testing?

YES, for 90% of its business systems with a completion date of March 1999.

Has the company implemented contingency plans?

Contingency plans are under review.

Has the company updated or developed disaster recovery plans?

Disaster recovery plans are under review.

Has the company reintegrated the converted and replaced systems and related databases into the production environment?

Yes

Program and Project Management

Has the company established a Year 2000 program management structure?

The company has

appointed a Year 2000 program manager and established a Year 2000 program team
YES
identified technical and management representatives from each core business ,-area
YES

Based on the assessment of its program management capabilities, has the company developed and implemented policies, guidelines, and procedures to manage a major program?
YES

The company's policies, guidelines, and procedures include

configuration management
quality assurance
risk management
project scheduling and tracking
metrics
____*budgeting*

Is the company monitoring the Year 2000 program to ensure that projects are following required policies and procedures for configuration management, project scheduling and tracking, and metrics?
YES

Have you addressed Y2K compliance and/or readiness with external suppliers, contractors, and other business partners or vendors?
YES

Have you determined if your suppliers and vendors are Year 2000 compliant and/or year 2000 ready? If no, why not? If yes and your suppliers and vendors are not Year 2000 compliant, what negative impact can this have on your provision of utility service?

We have contacted all vendors and suppliers of critical supplies and services and are working With them to mitigate any Y2K related supply or service disruptions.

What facilities and equipment have vendors certified as Year 2000 compliant?

What facilities and equipment have vendors certified as Year 2000 ready?