The California Public Utilities Commission (CPUC) has regulatory authority over essential telecommunications, energy, water, and transportation services throughout California. Most of these essential services are interrelated. Disruption, even for a few hours, of one or more of these services can significantly and adversely affect many people, communities, or the entire state, as well as daily commerce in California.

The Commission recognizes that it does not have sufficient resources to audit and correct all of the systems of our utilities. Therefore, like the utility commissions in other states we have focused our efforts on a process that verifies that utilities have a correcting plan, a schedule for remediation, and a contingency plan in the event of unforeseen problems.

In this context, the Commission has taken several steps to evaluate their readiness.

- Early in 1998, with the exception of some transportation companies, a letter was sent to every CPUC-regulated utility and company requesting confirmation of their Year 2000 (Y2K) plan, their preparation, and a timetable for readiness. Many utilities, especially those serving most ratepayers, responded.

- In November 1998, the Commission issued a formal resolution (M-4792) requiring the utilities under our jurisdiction to file a survey which outlines how they have and are addressing any Y2K problems for each of their operations. The resolution and survey are currently available at our website.

- We also sent the survey to municipal utilities and asked them to respond, although we have minimal jurisdiction over their operations.

- The survey requires the utilities to prioritize their Y2K efforts to address safety and reliability of service delivery systems ahead of billing and other administrative systems.

- Beginning March 15 of this year through March 15, 2000, the utilities are required to provide the Commission with quarterly updates on the status of their efforts.

- Contingency plans must be developed and filed with the Commission by July 1.

- Each utility must certify to the Commission by November 1 that all of its essential delivery systems are Y2K compliant or Y2K ready.

- In addition, the energy utilities are required to participate in regional and industry-based Y2K efforts, including those of the North American Electric Reliability Council (NERC), the Western States Coordinating Council (WSCC) and the Electric Power Research Institute (EPRI). The utilities must provide the Commission with information provided in response to such efforts.

- A second Y2K resolution was signed on April 1, 1999. This resolution is intended to clarify that the public interest in utility readiness outweighs utility desires for confidentiality in most cases.

Response to the survey has generally been very good. However, the Commission is in the process of determining what compliance or enforcement actions will be taken against those who have failed to respond to the survey or otherwise comply with the Commission's orders.

Here is an update on the Y2K readiness of the CPUC-regulated utilities:

Telecommunications

More than 150 telephone companies in California (local, long distance and wireless) have responded in detail to the Commission's Y2K computer compliance survey contained in Resolution M-4792 (November 1998). All these companies indicate that they are either Y2K compliant or will be by the end of 1999. This information is consistent with reports from the Federal Communications Commission (FCC) that reveal that the nation's seven largest phone companies (which include Pacific Bell and GTE California), as well as the three largest long distance companies (which earn 82% of the industry's revenues), were all Y2K compliant by the end of September 1999. The FCC reports that mid-size and small telephone companies are expected to be Y2K compliant by the end of 1999. The FCC's Network Reliability and Interoperability Council (which studiesY2K issues for the FCC) does not expect Y2K to disrupt the call processing in the United States.

If you have any questions, please contact Richard Fish at (415) 703-1923.

Energy

The CPUC regulates investor-owned utilities which serve about ¾ of the California's electric customers and 90% of the gas customers. The work of the Energy Division includes service reliability issues for the gas and electric utilities generally, and Y2K matters are among these.

All of the investor-owned energy utilities filed on time last year, and all have filed at least once again, including their first required quarterly reports due on March 15, 1999. These filings include responses to the CPUC's own survey, as well as copies of responses prepared for other organizations, such as monthly progress reports to NERC.

In sum, they show that the utilities all have plans in place to be ready in time, in most cases by June 30, 1999, and that they are on schedule or ahead of schedule in implementing these plans for the most part. Some of the highlights are:

- Some utilities including the larger ones were aware of the Y2K problem and began planning for it in 1996 or earlier;

- Hundreds of millions of lines of computer code have been checked and made ready;

- Tens of thousands of embedded chips have been identified and made ready if necessary;

- Hundreds of thousands of utility officer, staff, and consultant hours have been spent since the beginning and are continuing; and

- Hundreds of millions of dollars in capital and expense are being spent, to ensure that delivery of essential utility services is continuous into next year.

It is important to note that the CPUC cannot guarantee that the utilities will complete their work on time, and we cannot do their work for them. However, we have found evidence of no major problems in the materials submitted to date. The only milestones which show any delay are those which can only take place during facility shutdowns which are already scheduled for the latter half of the year, primarily generating stations. All Y2K materials and procedures scheduled for future installation will have been installed and tested earlier on identical equipment.

For decades electric utilities in California and nationwide generally have had emergency plans in place to handle unusual conditions, including

- Stages of increasing alert when reserves grow short;
- Defined blocks to rotate outages if needed; and
- Mutual aid plans with neighboring utilities.

Electric industry restructuring in California caused utilities to update these plans to accommodate new institutions such as the Independent System Operator (ISO).

Nevertheless contingency planning specific to Y2K still makes sense, because we only know when any Y2K effects will occur but not if or where they will occur.

The utilities' contingency plans are not due to the CPUC or to NERC until mid-year. But they are likely to include such things as having manual backup personnel and materials in place on New Year's Eve at control centers and switching stations, along with several different means of communication such as datalinks, internal phone systems, public voice lines, and wireless cellular and radio technologies.

The CPUC's existing standards govern the utility's emergency planning and response activities in all cases, in addition to specific Y2K preparations. In the event of major outages these standards require utilities to, among other things

- Describe major outages (location, expected duration, and cause) on their customer call center recordings;

- Notify the CPUC and other government agencies, the media, and the ISO and the Power Exchange (PX); and to

- Plan ahead and coordinate efforts during events so as to best work with emergency response staff and equipment of other utilities and with state, county and local public agencies.

Performance-based ratemaking mechanisms currently in effect create a continuous financial incentive to avoid service disruptions. In any case failure to comply with these service standards mentioned above could be a basis for penalties following major events.

Two new institutions created by electricity restructuring are regulated not by the CPUC but by the Electricity Oversight Board (EOB) and by the Federal Energy Regulatory Commission (FERC). They are the Independent System Operator and the Power Exchange.

Independent System Operator (ISO) - The state's transmission system is operated by an independent not-for-profit corporation called the Independent System Operator. The ISO has a Y2K preparedness plan underway in cooperation with its infrastructure system vendors, and the external entities with which it deals daily including: scheduling coordinators, transmission owners, utility distribution companies, the Western States Coordinating Council, adjacent control areas, generation owners, and financial institutions including the Power Exchange.

Power Exchange (PX) - Electricity is bought from and sold to the three largest investor-owned utilities, PG&E, Southern California Edison, and SDG&E through an independent not-for-profit entity called the Power Exchange. The PX is coordinating its Y2K preparation with the ISO and utilities, since all must function in a coordinated manner for power to reach users reliably.

To insure complete and effective preparation for the Year 2000, the Commission's staff and managers are meeting and coordinating not only with utilities but also with the Governor's Office of Emergency Services (OES), the Department of Information Technology (DOIT), the Statewide Emergency Planning Committee (SWEPC), the Electricity Oversight Board and the Independent System Operator, and others.

If you have further questions about the Y2K preparation of investor-owned gas and electric utilities under the CPUC's jurisdiction, please contact Brian Schumacher at or (415) 703-1226.

Water

The Water Division (Division) mailed Y2K surveys to all Commission regulated water companies which provide water to approximately 20% of all residential customers in California. To date, the Division has received 160 responses of the total 175 surveys

mailed. The 160 responding water utilities include all Class A, B and C water utilities representing all systems with more than 500 connections. The 15 water utilities that have not responded thus far are all Class D water companies, each with less than 500 connections. The Division believes that it is highly unlikely that any of these 15 Class D water utilities have computer-controlled systems; however, we plan to contact each one of them to verify that they will not have a problem. We hope to have contacted all water utilities by April 15, 1999.

Of the 160 responding utilities, only 10 report that they have computerized service delivery systems. As of this date, the Division has received the March 15th quarterly reports from all 10 utilities and they all indicate that they are on schedule at becoming Y2K compliant before the end of the year.

The Division has been coordinating with other agencies and associations on the Y2K problem. At the State level, we have been working with the Office of Emergency Services (OES) and Department of Information Technology (DOIT). At the Federal level, we have been in close contact with the National Association of Regulatory Utility Commissioners (NARUC). We, as well as the water utilities, have followed the American Water Works Association (AWWA) website regarding guidelines associated with the Y2K problem.

If you have further questions, please contact Fred Curry at (415) 703-1739.

Transportation

The Commission has critical safety oversight over freight and commuter railroads, rail transit systems, and all sites where railroads cross the state's public roadways at grade. We also have licensing and insurance regulatory authority over 3,300 household goods moving and passenger carriers, as well as 23 ferry systems and 278 other water transportation companies.

As part of its Y2K project, Staff sent the Commission's "Year 2000 Program Assessment Checklist & Survey for Jurisdictional Companies" to the state's rail transit operators, commuter and privately owned freight railroads during November 1998. A total of 42 surveys were distributed.

Eleven of the 42 surveyed rail transportation providers indicated they use computerized service delivery systems. We have been monitoring the Y2K remediation efforts of these 11 during the course of this year, and it appears that they are all taking reasonable steps to assure they avoid any Y2K related problems as the new millenium commences. In fact, as of mid-October, four of the 11 had certified to us in writing that they are now Y2K compliant. By early November, we expect that they all will have submitted similar written certifications. In the unlikely event any of these rail transporters do experience Y2K problems in the course of providing service to the public, each has indicated it has developed a business continuity plan designed to mitigate such problems.

The federal government (through the Federal Railroad Administration and the Federal Transit Administration) is also pursuing a Y2K oversight program directed toward these railroad and rail transit utilities. To the extent possible, we are coordinating our oversight efforts with those of these federal agencies to assure all efforts achieve maximum effect. One recently reported Y2K monitoring effort by the FRA is a just completed independent assessment of the Y2K readiness of the country's four largest freight railroads (two of which are also the largest railroads operating in California). That assessment concludes that "the American public and all organizations who ship their goods over the rails should expect no degradation of service caused by Year 2000 problems."

We determined that other carriers under Commission jurisdiction (household goods, passenger stage and water carriers) are primarily small businesses that do not use sophisticated computer systems to provide service. We thus sent only an abbreviated version of the Commission's "Year 2000 Program Assessment Checklist & Survey of Jurisdictional Companies" to a small group of the largest of these carriers. Their survey responses indicate that customers who rely on them should experience no significant Y2K related service disruptions as the New Year begins.

If you have any questions, please contact Jerald Kerschman at (415) 703-2223.

Consumer Education

Once we are assured of utility Y2K readiness, the Commission will inform the public about the measures taken to assure reliability of utility service as well as contingency plans to minimize any service disruption. Our intent will be to provide information that will moderate undue public concern.

Nevertheless, contingency plans are necessary parts of Year 2000 readiness in case remedies are delayed or fail in part. Some experts, for instance, advise consumers to have a ready supply of cash on hand before January 1, 2000 in case of outages involving Automatic Teller Machines, credit card verification circuits, or at credit card pay gasoline pumps. It may be prudent, too, for consumers to keep hard copies of bills and payments made for the last six months of 1999.

Since October 1998, the Commission and other state agencies have been working with the state Office of Emergency Services (OES) in their efforts to assist the state and local agencies and private industries to identify Y2K failures, the possible consequences, and coordinate contingency actions.

The OES will produce a comprehensive contingency plan focusing on the kinds of consequences that can be expected and possible contingency actions. The plan is tentatively scheduled for publication this Fall. You may check OES' website for updates.

Y2K Within the CPUC

Because of the critical nature of the services provided by utility companies, much of our focus is on assuring the preparedness of the utilities we monitor. However, we are also looking at our own internal agency Y2K preparedness.

We have inventoried our systems, hardware, software, network servers, routers and other peripherals that support our key business practices to make sure they are Y2K compliant. This involved a check and correction of every personal computer in the Commission, analysis and correction of all mainframe computer systems, and evaluation and correction of other electronic systems within the CPUC including security and parking access. Many of these have already been modified, and the remaining ones will be corrected by the third quarter of 1999.

Part of our remediation process has been to request written Y2K compliance information from all of our vendors - and some, but not all, have responded.

We are also in the process of identifying and correcting the embedded chip variant as it pertains to the Y2K issue.

The Commission is doing everything that it can internally, and through our regulatory authority, to contribute to the state's overall effort to protect Californians…and welcome the millennium without disruption in essential services.