

ORDER NO. 93-084

ENTERED JAN 19 1993

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 500

In the Matter of the Commission's Investigation)
into an Electric Load Curtailment Plan.)

ORDER

DISPOSITION: CURTAILMENT POLICIES ADOPTED

INTRODUCTION

Oregon Revised Statutes Chapters 757 and 758 require those who sell electricity (or natural or synthetic gas) to the public in Oregon to have in place load-curtailment plans approved by the Commission. The requirement applies to individuals, firms, partnerships, corporations, associations, cooperatives, and municipalities. The plans would apply during any energy emergency declared by the Governor pursuant to ORS 176.750 through 176.820. The current plans on file with the Commission have been in effect since the late 1970's.

Load-curtailment plans address energy shortages lasting months, rather than short-term shortages that might result from a period of unusually cold weather. ORS 757.710 directs that the plans address "any predictable circumstance that may jeopardize prolonged continuity of service."

During the past three years, a group of regulatory and utility representatives from Oregon, Washington, Idaho, and Montana have developed a regional electric load curtailment plan. Representatives from private and public utility companies, state regulatory commissions, the Bonneville Power Administration, the direct service industries, the Northwest Power Planning Council, the Oregon Department of Energy, and others, worked to develop the plan. They created a regional plan designed to deal effectively with long-term shortage situations and promote curtailment plan uniformity among the states. The plan was issued in May 1992.

The regional plan does not, by itself, have any enforcement authority. Sponsors of the plan encourage the four states to individually adopt curtailment plans consistent with the regional plan.

At its public meeting on August 4, 1992, the Commission considered a recommendation by its staff that it initiate an investigation into revising the Commission's electric load curtailment policies. The Commission adopted its staff's recommendations. The regional plan has served as a focal point for the investigation.

The Commission served notice of its investigation on a large number of individuals and organizations who might be interested in curtailment plans. Written comments were invited. During September 1992 hearing sessions were held in Salem, Grants Pass, Bend, and Baker City, Oregon. Those who commented on the plan agreed with the general principles stated in the regional plan.

Commission staff recommends that the Commission require each electric energy utility operating in Oregon to file a load curtailment plan with the Commission. Staff recommends that the filed plans be based on a model plan issued by the Commission. Staff also recommends that the Commission adopt the regional curtailment plan as a general policy guideline for dealing with long-term electric energy shortages.

PROPOSED CURTAILMENT POLICIES

The proposed model plan contains five phases of curtailment. The first two involve appeals for voluntary curtailment; the last three involve mandatory curtailment amounts. The model plan provides for enforcement of mandatory curtailment by the use of penalties.

The voluntary phases would consist of requests that customers curtail their consumption of electricity. Most people would be willing to reduce their consumption when faced with the consequences of a shortage.

If voluntary curtailment failed to bring resources and loads into balance, mandatory curtailment would be required. In phase one of mandatory curtailment, customers would be required to consume less electricity than they consumed during the corresponding billing period the previous year. A required percentage reduction would be established and would apply to all customers.

The second stage of mandatory curtailment would require an additional reduction in consumption of electricity. As more severe curtailment steps are required, differences among the customer classes become more important. Some will be able to take additional curtailment measures with less disruption than others. Therefore, it may not be practical or even possible to require the same percentage reduction for all customer classes. For instance, the Commission may decide that residential customers should continue curtailing at least 15 percent, general use customers should curtail 20 percent, and major use customers should curtail 25 percent. The required amount of curtailment would be at least 15 percent, and all customers within a customer class would be subject to the same requirements.

The third, and last, stage of mandatory curtailment would be the curtailment of last resort to keep the system functioning. Selective shutoffs of service and rolling blackouts could be ordered.

A system of escalating penalties would be used to enforce mandatory curtailment. The penalties would start at ten cents per kilowatt hour of excess use and go as high as forty cents per kilowatt hour of excess use plus disconnection of service.

Exemptions would be available to customers who demonstrated to their utility that the required curtailment would result in unreasonable exposure to health or safety hazards, would seriously impair their welfare, or would cause extreme economic hardship. For example, critical load customers like hospitals, police, and fire stations could obtain exemptions after demonstrating that nonessential energy use had been curtailed. A customer dissatisfied with the utility's response could appeal to the Commission.

CURTAILMENT POLICIES ADOPTED

The goal of utility companies and government officials is to have electric energy available to the public on a consistent, uninterrupted basis. However, many factors affect the balance between demand for electricity and the supply of it, and programs do not always work out as planned. A prolonged drought or loss of existing resources could put an unanticipated strain on the supply network. Utilities might be unable to obtain approval for and build new resources to timely meet increasing load demands.

The Commission does not expect a significant shortage of electrical energy in Oregon in the foreseeable future, but contingency plans are both prudent and required by law. At its public meeting on November 24, 1992, the Commission considered energy load curtailment issues. The Commission adopted the policies recommended by its staff.

The staff recommendation includes a model plan to be used by individual utilities in preparing their individual curtailment plans. Staff also recommends that the Commission adopt the regional plan as a statement of general principles and a declaration of its commitment to a regional approach to curtailment planning.

The model plan provides an appropriate balance between the need for flexibility in dealing with future events and the need for specificity so people will know how the plan will work. It allows decision-makers to match the level of curtailment to the shortage being experienced. As circumstances change, curtailment requirements can be adjusted. The plan is designed to require only the minimum necessary administrative burdens on utilities, but still ensure that customers are treated fairly and consistently. The plan imposes equal burdens on similarly situated customers.

In the event of a shortage of electricity, the Commission will initiate the statewide voluntary phases of the curtailment program, although utilities are at liberty to seek voluntary curtailment from their customers at any time. The Commission will publicly declare the need for curtailment and coordinate its activities with the utilities. Obtaining significant curtailment from the public will be crucial to the success of the voluntary portion of the program.

If voluntary curtailment is insufficient and there still is a shortage of electricity, the Governor may declare an emergency and start the mandatory portion of the program. If directed by the Governor in an executive order, the Commission will issue an order directing Oregon consumers of electricity to curtail the amount of electricity consumed. The percentage of required curtailment in phase one will be between five and 15 percent. The utilities will then administer their curtailment plans on file with the Commission.

Any additional curtailment activities will be done in accordance with the plan adopted in this order and stated in the tariffs approved by the Commission.

The Commission will be available to handle customer appeals from utility curtailment decisions. The Commission's existing procedures are adequate to handle any curtailment-related disputes.

The issues addressed in this order relate to the possibility of a long-term shortage of electricity. The effects of such a shortage would be regional. The Commission will work with people from other states as well as those from Oregon to best handle any shortage. The Commission urges others involved in supply/resource issues to cooperate and work together. Oregon, and other states, will be better able to effectively deal with a supply shortage if all parties in interest in the region work together.

CONCLUSIONS OF LAW

1. Utilities filing curtailment plans consistent with Attachment 1 to this order will meet the requirements of ORS 757.710(1);
2. The model plan is consistent with the public health, safety, and welfare, and with Oregon energy policies;
3. Implementation of the model plan is technically feasible and will minimize the effects of any shortages requiring curtailment;
4. The Commission consulted with the director of the Department of Energy about curtailment issues;

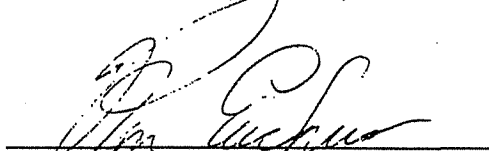
5. The Commission should direct utilities to file curtailment plans consistent with the attached model plan;
6. The Commission should adopt the regional plan as a statement of general principles.

ORDER

IT IS ORDERED that:

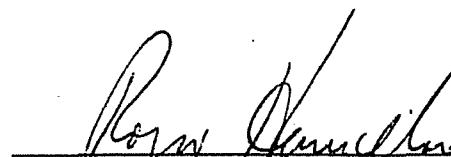
1. Within 90 days of the issue date of this order, each person defined in ORS 758.400 engaged in the business of sale or resale of electricity in Oregon shall present for approval a curtailment plan consistent with the model plan included as Attachment 1 to this order;
2. The Commission adopts as a statement of general principles the Regional Curtailment Plan for Electric Energy included as Attachment 2 to this order.

Made, entered, and effective JAN 19 1993


Ron Eachus
Chairman

COMMISSIONER SMITH WAS
UNAVAILABLE FOR SIGNATURE
Joan H. Smith
Commissioner




Roger Hamilton
Commissioner

A party may request rehearing or reconsideration of this order pursuant to ORS 756.561. A party may appeal this order pursuant to ORS 756.580.

CURTAILMENT PLAN FOR ELECTRIC ENERGY

Section I. Purpose and Overview of the Curtailment Plan

This Plan identifies the process by which _____ would initiate and implement regional load curtailment. Included in the Plan are detailed procedures to be followed during a protracted regional electrical energy shortage to ensure uniform treatment of all regional consumers. The Plan is not intended to be activated for relatively short-term emergencies such as those caused by extremely cold weather or the temporary loss of a major generating plant. The plan would be activated when declared necessary by state authorities.

The goal of this Plan is to accomplish curtailment while treating consumers fairly and equitably, minimizing adverse impacts from curtailment, complying with existing State laws and regulations, and providing for smooth, efficient, and effective curtailment administration.

Section II. Definitions

The following definitions apply to terms used in this Plan.

- A. **Base Billing Period.** One of the billing periods comprising the Base Year. Base Billing Period data are weather-normalized before being used to calculate the amount of curtailment achieved.
- B. **Base Year.** Normally, the 12-month period immediately preceding imposition of State-initiated load curtailment.
- C. **Critical Load Consumer.** A consumer that supplies essential services relating to public health, public safety, welfare, or energy production.
- D. **Curtailment.** Load reduction, irrespective of the means by which that reduction is achieved.
- E. **Curtailment Target.** The maximum amount of energy that a consumer may use and still remain in compliance with the State curtailment order; the Curtailment Target is figured individually for each consumer by Base Billing Period.
- F. **Excess Power Consumption.** The lower of the following two values for loads subject to penalty: (1) the difference between a consumer's actual (or metered) consumption level during a billing period and the Curtailment Target, or (2) the difference between the consumer's weather-normalized energy use during a billing period and the Curtailment Target.
- G. **Extra-Regional.** Any load, resource, or entity located outside of the region as defined in Section 3.(14) of P.L. 95-501, the NW Power Act.

- H. **General Use Consumer.** Any nonresidential consumer who purchased less than 5 average megawatts (48,300 MWh) during the base year.
- I. **Major Use Consumer.** A consumer who purchased over 5 average annual megawatts (43,800 MWh) during the Base Year.
- J. **Non-Regional.** Any load, resource, or entity located outside of the region as defined in this Plan.
- K. **Plan.** This Curtailment Plan.
- L. **Region.** The States of Washington, Oregon, Idaho, and those portions of Montana that are west of the Continental Divide and/or within the control area of the Montana Power Company.
- M. **Regional Load.** The load placed by ultimate consumers within the region on their respective utility supplies; the load subject to curtailment under this Plan.
- N. **State.** The Public Utility Commission of Oregon.
- O. **State Contact(s).** Individuals who represent the State of Oregon in connection with curtailment issues.
- P. **State-Initiated.** Actions taken by the State to implement individual load curtailment plans within its jurisdiction.
- Q. **Threshold Consumption Level.** The maximum amount of energy that a consumer can use during mandatory load curtailment without being subject to penalties under this Plan.
- R. **Utility Contact.** Individual representing this utility in connection with curtailment issues.
- S. **Utility Coordinator.** The Director of the Northwest Power Pool.
- T. **Utility Curtailment Reports.** Report(s) summarizing curtailment data; such reports are to be submitted monthly to the Public Utility Commission and the Utility Coordinator.
- U. **Weather-Normalization.** The procedure used to reflect the impact of weather on utility load levels. Sometimes referred to as "weather-adjustment."

Section III. Curtailment Stages

State curtailment directives apply to all retail loads served within the State of Oregon. Under the Plan, curtailment is requested or ordered as a percentage of historical, weather-normalized (Base Billing Period) electric energy consumption. The curtailment stages are associated with increasing energy deficits.

The five curtailment stages are:

<u>Stage #</u>	<u>Nature</u>	<u>Curtailment Percent</u>	<u>Type of Curtailment</u>
Stage 1	Voluntary	No specified %	Uniform among all consumers
Stage 2	Voluntary	5% +	Uniform among all consumers
Stage 3	Mandatory	5 to 15%	Uniform among all consumers
Stage 4	Mandatory	15% 15% + 15% +	Residential Consumers General Use Consumers Major Use Consumers
Stage 5	Mandatory	% associated with Stage 4 + additional curtailment	Continued Consumer Curtailment plus Utility Action, including Plant Closures and possible Black-Outs

Section IV. Initiation of Load Curtailment

Load curtailment will be initiated when directed by State authorities. However, nothing precludes the utility from requesting voluntary load reduction at any time.

Section V. Administration of State-Initiated Curtailment

1. Overview

Stage-by-Stage Utility Administrative Obligations. Upon notice from the State to initiate load curtailment, _____ shall immediately begin complying with the directives of this plan. All requirements for lower level stages continue to apply to higher level stages. Throughout the curtailment period, _____ will provide consumers with as much useful information as we reasonably can. The requirements specified below represent the minimum actions to be taken.

- Stage 1. _____ will begin (or continue if we have already begun) providing curtailment information to our consumers. _____ shall also assist States, as appropriate, in briefing the media about the shortage.
- Stage 2. In Stage 2, _____ will (a) notify our consumers of the percentage level of State-initiated voluntary curtailment; (b) provide curtailment tips to consumers; (c) answer consumer questions about

curtailment; (d) provide curtailment reports to the States and the Utility Coordinator; and (e) provide more detailed information to the media than provided in Stage 1.

- Stage 3. In Stage 3, _____ will (a) notify our consumers of the percentage level of State-ordered mandatory curtailment; (b) calculate weather-normalized Base Billing Period data and Curtailment Targets for all consumers who will be audited in the current billing period; (c) provide Curtailment Targets to all consumers who request such data for their own accounts; (d) provide audited consumers with information about how to apply for exemption and adjustment of Base Year data; (e) process requests for exemption and Base Year data adjustments from those consumers selected for audit who would otherwise be subject to penalties; and (f) implement the penalties aspect of the Plan.
- Stage 4. In Stage 4, _____ will notify our consumers of any applicable changes in State-initiated mandatory curtailment.
- Stage 5. In Stage 5, _____ will collaborate with the State to develop and implement the most effective methods for securing the required load curtailment and to minimize the economic and human hardships of the last stage of load curtailment.

(2) Suggested Curtailment Actions.

Information will be disseminated to consumers regarding actions they can take to reduce their electric energy consumption. We will work together with the State to develop this material. The recommendations will be based on the actions described in Appendix C of the Plan, "Curtailment Measurements."

(3) Base Year Data and Curtailment Targets.

- (a) Identification of the Base Year. The Base Year for a shortage will be established by the State. Base Year and Base Billing Period data shall be weather-normalized.
- (b) Estimating Base Billing Period Data for Consumers for Whom No Base Billing Period Data Exists. Base Billing Period data must be obtained or developed for any consumer who is audited under this Plan. Although we have the option of excluding residential and General Use Consumers without actual Base Billing Period data from the random sample of audited consumers, Base Billing Period data will be estimated for any audited consumer for whom actual data does not exist or is found to be inaccurate.

- (c) Communicating Curtailment Target Information to Consumers. During mandatory curtailment, retrospective, current billing period, and forthcoming billing period Curtailment Target information will be provided to any consumer who so requests. Retrospective Curtailment Target information will be provided to any audited consumer who will be issued a warning or penalty. At our option, we may provide Curtailment Target information to other consumers or consumer classes as well.

- (4) Auditing Consumers for Compliance with State Orders for Mandatory Load Curtailment. Each billing period, at least one percent of residential users, five percent of General Use Consumers, and 100 % of our Major Use Consumers (including those Major Use Consumers with estimated Base Billing Period data) plus any consumers penalized in the previous billing period will be audited. The number of consumers exempted or excluded from audit will not affect the sample size.

New samples shall be drawn each month. Consumers penalized under this Plan shall continue to be audited until their energy use falls below the Threshold Consumption level. Once their energy use falls below that level, they will be audited again only if selected by random sample.

Unless we are auditing 100% of our residential users and General Use Consumers, all such consumers selected for audit shall be chosen on a random sample basis, except that the following consumers are to be excluded: (a) consumers granted an exemption under this Plan; and (b) consumers with an estimated power bill in the current billing period. At our option we may also choose to exclude consumers with estimated Base Billing Period data, if the State does not require their inclusion in the pool of consumers subject to audit.

- (5) Penalties for Non-compliance.

- (a) Nature of Penalties. The penalties under this Plan are structured as follows:

<u>Violation</u>	<u>Penalty</u>
First bimonthly violation	10¢ per kWh of excess use
Second bimonthly violation	20¢ per kWh of excess use
Third bimonthly violation	40¢ per kWh of excess use
Fourth bimonthly violation	1 day disconnection + 40¢ per kWh of excess use
Fifth bimonthly violation	2 day disconnection + 40¢ per kWh of excess use

Sixth and all subsequent violations

Penalties are determined by the State. Civil penalties or other other corrective actions would be possibilities.

- * The penalty for violators who are billed every two months will escalate on every power bill in which they are subject to penalty. Consumers billed on a monthly basis will be assessed the same penalty on two successive occasions before incurring the next higher level penalty. During any continuous period of curtailment, assessed penalties remain "on the record" for the purposes of administration of subsequent penalties, even if there has been an intervening period of "compliance."

Standard disconnect criteria and procedures will be used whenever disconnecting consumers in accordance with this Plan. Health, safety, and welfare considerations will be taken into account, and consumers will be billed for normal disconnect and reconnect charges.

- (b) **Calculation of Financial Penalties.** Financial penalties will be calculated by multiplying the consumer's Excess Power Consumption each billing period by the appropriate penalty level identified above.

- (1) **Threshold Consumption Level.** The Threshold Consumption Level assigned to each consumer class is identified in the table below. These values may be changed by the State so as to effect better compliance with the curtailment order.

<u>Type of Consumer</u>	<u>Threshold Consumption Level</u>
Residential consumers	10% above Curtailment Target
General Use consumers	10% above Curtailment Target
Major Use consumers	2% above Curtailment Target

- (2) **Excess Power Consumption Calculation.** Penalties will not be assessed if a consumer's load (either actual load or weather-normalized load) is equal to, or less than, the Threshold Consumption Level. Excess Power Consumption is the lower of the following two values for each sampled load subject to penalty: (a) (Actual Load) minus (Curtailment Target) or (b) (Weather-Normalized Load) minus (Curtailment Target).

(c) Assessment of Penalties

(1) Penalties vs Warnings. Consumers will be assessed penalties only if they have Excess Power Consumption and if they are to be penalized based on the penalty assessment procedures described below. Any sampled consumer who is not penalized and whose use exceeds the Curtailment Target will receive a warning.

(2) Penalty Assessment Procedures. Sample at the mandated minimum percentages for each section as specified in this Plan [1%-5%-100%] (or as otherwise specified by the State) and assess penalties on all consumers with Excess Power Consumption.

At our option, we may sample at higher percentages of consumers than the minimum required by above and may choose among the following penalty assessment options:

(a) Assess penalties on all sampled consumers with Excess Power Consumption; (this methodology must be used for Major Use Consumers even if the utility chooses option (b), below, for its other consumer sectors); or

(b) Develop a ratio of the minimum percentage sample size to the actual percentage sampled for the residential and/or General Use consumer sectors. Multiply the resulting percentages by the total number of violators in each respective consumer sector to determine the minimum number of penalties that must be assessed in each sector. Calculate the percentage violation for each individual consumer that has been sampled (Excess Power Consumption divided by Curtailment Target) and apply penalties to the "worst offenders" in the overall sample based on their percentage "Excess Power Consumption." Also penalize all consumers who were penalized in the previous billing period and who still have Excess Power Consumption.

(3) Treatment of DSIs. Penalties applicable to BPA's direct-service industrial customers may be assessed by the State based on billing data provided by BPA.

(d) Billing Consumers for Penalties. The penalty on the power bill may be described as "State-mandated" and shall include any State-provided material describing the penalty aspect of the Plan as a bill stuffer in the bills of penalized consumers. The bill shall note that

failure to pay penalties will result in service disconnection in accordance with standard disconnect criteria and procedures.

- (e) **Treatment of Penalties Pending Adjustment/Exemption Determinations.** Consumers who have applied for adjustment of Base Billing Period data and/or exemption from mandatory curtailment may request a stay of enforcement of the penalty aspect of the Plan pending a final decision regarding its request. Any consumer who has been granted such a stay shall be subject to retroactive penalties as applicable if the request is ultimately denied.
- (f) **Use of Funds Collected Under the Penalty Provisions of the Plan.** Funds collected under State-ordered penalty provisions of this Plan shall be set aside in a separate account. The ultimate disposition of these funds will be determined by [the Public Utility Commission in the case of investor-owned utilities or by the governing bodies of publicly-owned utilities].

(6) **Exemptions and Adjustments.**

- (a) **Consumer Application for Exemption/Adjustment.** Consumers will be informed of how to apply to exemption from Plan requirements or adjustments of Base Billing Period data. At our option we may elect to process exemptions and adjustments only for audited consumers. Consumers seeking an exemption or adjustment shall apply first to us and then, if dissatisfied with that outcome, to the State.

At our option, we may provide for a credit against future curtailment for a customer who has already accomplished a reduction in demand for the utility's service by installing an alternative energy device or by weatherization or other installed conservation measures equivalent to the proposed level of curtailment. Where the level of curtailment exceeds the demand reduction produced by the conservation measures or installed alternative energy device of the customer, we may provide for credit against the level of curtailment ordered to the extent of the demand reduction produced by the conservation measure or alternate energy device.

- (b) **Granting Consumer Requests for Exemption from Mandatory Curtailment.** No automatic consumer exemptions will be granted under mandatory State-initiated load curtailment. Exempted consumers should be informed that exemption may not protect them from Stage 5 black-outs.

- **Critical Load Consumers.** Critical Load Consumers may be exempted once they have demonstrated to their utility that they have eliminated all non-essential energy use and are using any reliable, cost-effective back-up energy resources.
 - **Other Consumers.** Exemptions for consumers not qualifying as Critical Load Consumers under this Plan will be evaluated based on whether curtailment would result in unreasonable exposure to health or safety hazards, seriously impair the welfare of the affected consumer, cause extreme economic hardship relative to the amount of energy saved, or produce counterproductive results.
- (c) **Utility Record-Keeping Relative to Consumer Exemptions.** Records regarding exemption determinations will be made available to the Commission upon request.
- (7) **Measurement of the Amount of Curtailment Achieved and Determination of Compliance.** At all times during State-initiated regional load curtailment, the Commission and the Utility Coordinator will be provided with consumption and savings data on a monthly basis in the form specified in Appendix D of the Regional Plan. To the extent that circumstances at the time of actual load curtailment dictate the need for additional data or more frequent data submittal, a best efforts to comply with the Commission request will be made.
- (8) **Special Arrangements**
- (a) **Use of Consumer-Owned Generation Facilities.** Consistent with the need for safety and system protection, consumers having their own generation facilities or access to electricity from non-utility power sources may use energy from those other sources to supplement their curtailed power purchases from their electric utility.
 - (b) **Curtailment Scheduling.** During periods of mandatory curtailment, a consumer is obligated to provide the requisite amount of curtailment within each billing period. Within that period, and subject to equipment limitations and our rules on load fluctuations, consumers are free to schedule their curtailment so as to minimize the economic cost, hardship, or inconvenience they experience as a result of the mandatory curtailment requirement.

SECTION VI. APPENDICES AND RELATED CURTAILMENT INFORMATION

The Regional Electric Energy Curtailment Plan is included as an appendix. That plan contains additional information on curtailment administration.

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PREFACE

BACKGROUND

The Regional Curtailment Plan for Electric Energy represents a comprehensive revision of the 1977 Regional Plan, and has been some two years in the making. The Plan was developed by a Task Force consisting of representatives from the appropriate agencies of each of the four Northwest States, the Northwest's electric utilities, federal agencies, and the Direct Service Industries.

STRUCTURE

The Plan is divided into three separate parts as follows:

- I. REGIONAL CURTAILMENT PLAN FOR ELECTRIC ENERGY (detailed version)
- II. APPENDICES
- III. CONDENSED VERSION - REGIONAL CURTAILMENT PLAN
FOR ELECTRIC ENERGY

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REGIONAL CURTAILMENT PLAN

FOR ELECTRIC ENERGY

within the States of Washington, Oregon, Idaho, and Montana

SECTION I. PURPOSE OF THE REGIONAL CURTAILMENT PLAN

While utilities in the Pacific Northwest plan in such a way as to ensure that they have, or can readily acquire, adequate resources to serve their loads, the potential for a protracted electric energy shortage still exists. Such a shortage could result from a number of causes such as a prolonged drought that greatly reduces hydroelectric capability, severe operational constraints that could likewise reduce hydro capability, a moratorium on the operation of one or more coal or nuclear plants, or the loss of a major thermal resource due to mechanical or electrical failure. It is also possible that a shortage could develop as a result of utilities being unable, in a timely manner, to site and build new resources to serve a growing load -- either because of unanticipated load growth or because of unforeseen delays in bringing a resource on-line in time to serve expected new loads.

Under most circumstances, the region's utilities will be able to handle such energy shortages by buying and selling energy among themselves. Prices will rise, due in part to the operation of more expensive resources and in part as a result of the increased risks to which the selling utility is exposed. Resources will be operated at capacity to maximize energy output, and reserves will be tapped. Depending on the severity of the protracted regional electric energy shortage, State action may also be required.

Throughout this Plan, the term "State-initiated" load curtailment is used. This term refers to State appeals requesting or mandating load curtailment by regional consumers. State curtailment activities would be coordinated with, and supportive of, utility actions aimed at preventing or reducing the duration and impacts of a protracted energy shortage.

This Plan identifies the process by which States would initiate and implement regional load curtailment and provides detailed procedures to be followed during a protracted regional electrical energy shortage to ensure uniform treatment of all regional consumers. State action might also be required to assist utilities during short-term emergencies (such as shortages resulting from extremely cold weather or the temporary loss of a major transmission line). However, in such circumstances each State would probably act individually since the emergency would likely be over long before the inter-State coordination required by this Plan could occur.

Appropriateness of a Regional Approach to State-Initiated Curtailments

This Plan articulates the common approach to energy curtailments that has been adopted by each of the four Pacific Northwest States: Washington, Oregon, Idaho, and Montana. These four States are, in effect, an "electrical region," as together they comprise the principal marketing area of the Bonneville Power Administration (BPA) and the service areas of public and investor-owned utilities in the Pacific Northwest. Although there are connections with

utilities outside the Northwest to the north, south, and east, these connections primarily exist for the purpose of importing, exporting, or exchanging surplus power. These non-regional utilities are not directly affected by this Plan, although they will doubtless be asked if they can assist in alleviating a shortage.

Most of the large power plants serving the Northwest are either owned by a consortium of utilities from around the region or by the Federal government. Any action or event that affects or limits the operation of any such plant will obviously have regional impacts. It is possible, of course, that circumstances could arise that would appear to confine a shortage to a one or two State area. For example, unanticipated load growth in only one State could create a shortage among that State's utilities while appearing to have no impact on utilities in the other three. Nonetheless, the States recognize that such a shortage is still, in reality, a regional problem. The nature of the interconnected regional power system is such that a problem on one system affects others throughout the Northwest, with no regard for State boundaries.

Furthermore, the hydro system is coordinated throughout the Northwest and resources located in one State are not just dedicated to serving the consumers in that State. Hence, if the hydro system cannot make up the deficiency for whatever reason, the impact will be felt throughout the Northwest. Utilities within the four-State area have long recognized this reality and have historically coordinated operations among themselves for the purpose of ensuring the most efficient operation of the combined system and assisting each other to avert regional electric failures. The States also understand this fact; this reality was reflected in their respective 1977-78 load curtailment plans and forms the conceptual basis of this Plan as well.

Section 11(b) of the utilities' 1981 power sales contracts with BPA directs BPA to make payments to utility customers during periods of State-initiated load curtailment provided they are "metered requirements" or "actual computed requirements" customers. (If a State governor issues a request for voluntary curtailment, payments are required only if BPA also publicly calls for curtailment; if States order mandatory curtailment, BPA must make the payment irrespective of its own actions.) Such payments would affect the rates of BPA's customers throughout the region (and, hence, consumers throughout the Northwest), not just the rates of utilities located in the States that required curtailment. As a result, it makes sense for the four States to act together in calling for load curtailment.

For all these reasons, it is highly appropriate for the four States to coordinate their actions and treat any protracted energy shortage as a regional energy problem. This ensures that the impacts of a shortage are addressed in a consistent and equitable manner throughout the region and no single group of consumers is unduly affected.

Goals of the Plan

The principal goal of this Plan is to describe, in reasonable detail, the manner in which the four Pacific Northwest States intend to administer regional load curtailment. In developing the Plan, the States have weighed the need for specificity (having a well thought-out Plan that provides sufficient detail as to be administratively feasible and readily implementable) against the need for flexibility (essential for administration of the Plan during a curtailment, given that actual circumstances may make it advisable to change at least some aspects of the Plan). This balance of specificity and flexibility has been accomplished by writing the Plan to reflect the

intent of the States in curtailment administration (explaining the types of activities that need to be undertaken during a curtailment and providing the rationale and intent behind the suggested actions), but leaving open the possibility of adjusting the identified procedures to better fit the unique circumstances existing at the time of actual load curtailment.

This Plan is intended to achieve the desired level(s) of curtailment while:

- treating consumers and utilities equitably,
- minimizing adverse personal and social impacts (economic, physical, and otherwise),
- ensuring efficient administrative processes,
- minimizing administrative requirements, and
- complying with existing State laws and regulations.

The States recognize that the Plan, by necessity, represents a compromise among the identified goals. Where conflicts have arisen (for example, equitable treatment of consumers may impose burdensome administrative requirements on utilities), the States have striven to achieve the balance that is, overall, most equitable and administratively feasible.

The States realize that equity is an elusive concept and the degree of sacrifice required by one consumer under the Plan may differ significantly from that required of another. That is true not only for individual consumers within a customer class, but also between types of consumers (Residential, General Use and Major Use Consumers). Communities dependent on the fate of a single industry will likely have different service priorities during a period of load curtailment than those with no industrial base whatsoever. After considerable discussion and debate, the States have concluded that equitable treatment of consumers and utilities in a comprehensive Plan covering a four-State area can best be achieved by demanding similar sacrifices from all affected parties both in terms of the nature (voluntary vs. mandatory) and scope (percentage reductions required) of curtailment. Nonetheless, the time may come during a curtailment when the need for load reduction is so great as to require even greater sacrifices on the part of those still able to make further cuts in their electric energy consumption. At that point, equity would be defined in terms of the ability of consumers to provide load curtailment.

The Plan as a Guideline for Individual State Plans

This Plan serves as a guideline for the four individual States to use in developing their own curtailment plans. Each State will afford affected utilities and ultimate consumers an opportunity to comment on the proposed State plan before its adoption. As a result of such public involvement as well as differing statutory authorities and State policies, the individual State plans may differ to some extent; nonetheless, they will all reflect a common goal: to reduce electric energy consumption during a protracted electric energy shortage while protecting critical loads and minimizing economic disruption throughout the region.

SECTION II. OVERVIEW OF THE REGIONAL CURTAILMENT PLAN

This Plan is designed to ensure that any regional curtailment will be uniformly initiated and equitably allocated among all consumers in the Pacific Northwest to the extent practicable. Five stages of load curtailment are identified in this Plan, although they are not necessarily

implemented sequentially. Once the States have evaluated the severity of the situation (the amount and expected duration of the energy shortage) and determined that load reductions are required, they will initiate regional load curtailment at the appropriate stage and level (percentage reduction) in conformance with the provisions of their respective State plans.

In the first three stages, requested or mandatory levels of curtailment are similar in nature and scope, meaning that curtailment is either voluntary or mandatory for all consumers, and all consumers are asked for the same percentage reductions in electric energy consumption. Uniform curtailment is simple to understand, easy to communicate, and generally perceived as fair as it minimizes the impact on any single consumer or consumer class by treating all consumers the same way. The final two curtailment stages depart from the principle of identical treatment of all consumers. Before implementing either curtailment stages 4 or 5, the States will have concluded that the necessary load reduction cannot be achieved under an approach that requires similar percentage cuts in consumption by all consumers. Under such circumstances, the States will attempt to secure the necessary curtailments from those best able to provide further load reductions. Due to the differing consumer mixes among the region's utilities (in terms of the relative numbers of Residential, General Use, and Major Use Consumers), the curtailment level for each utility's service area in either Stage 4 or 5 would likely be unique.

Curtailment is measured on a consumer-by-consumer basis by comparing power consumption in the current billing period to power consumption in the corresponding billing period of the year preceding the initiation of load curtailment under this Plan. Requesting curtailment as a percentage reduction in consumption is appropriate in that it is relatively easy to measure and doesn't require on-site monitoring of behavior for compliance, such as would be necessitated by a prescriptive approach that would mandate the taking of certain curtailment actions. The percentage reduction approach does, however, have the drawback of failing to take into account the fact that many consumers have already incorporated curtailment measures into their lifestyle. As a result, the maximum amount of curtailment that can be reasonably expected from such consumers may fall short of the anticipated savings from the measures identified in Appendix C.

Achieving the desired level(s) of curtailment is a function of a number of factors, such as motivating all parties to "do their part," identifying clear curtailment goals, providing clear and concise instructions to utilities and ultimate consumers, administering the curtailment efficiently, and focusing administrative efforts on those consumers with the greatest curtailment potential. The applicable curtailment stage will normally be determined by the States in consultation with the region's utilities. In all probability, the States will first initiate voluntary curtailment, moving to mandatory curtailment only if the energy situation deteriorates or the required amount of curtailment is not achieved through voluntary efforts.

The State agencies administering curtailment have agreed to general procedures for announcing State-initiated curtailments and implementing their respective State plans. Despite the fact that the Plan explicitly provides for hardship exemptions from mandatory curtailment for both utilities and ultimate consumers, it is the intent of all four States to elicit widespread compliance with the curtailment orders as issued. To encourage curtailment consistent with State directives, the Plan includes penalties for non-exempted consumers who fail to curtail as required. To motivate consumers to curtail in excess of the requested amounts, utilities are encouraged to offer incentives to those who provide more than their share of curtailment.

This Plan describes the process by which the States will determine if curtailment is needed. It identifies the actions required of States and utilities to administer curtailment and articulates the common understandings as to how the curtailment message will be delivered and enforced. The Plan also includes reference material related to curtailment: (A) a discussion of the computer model that will be used to analyze the need for load curtailment, (B) a description of the types of information that will be needed if curtailment is required, (C) a listing of actions consumers could take to achieve the requested curtailment, (D) a description and sample copy of the curtailment form that utilities will submit to the Utility Coordinator and their respective States during load curtailment, (E) identification of the individuals who will serve as contacts for their respective organizations for curtailment matters, (F) a listing of State statutes addressing curtailment along with the organizations in each State that are involved, either directly or indirectly, in curtailment matters, and (F) a summary of the changes that are made to the Plan over time.

SECTION III. DEFINITIONS

The following definitions apply to terms used in this Regional Curtailment Plan and in individual State plans. If the first letter(s) of the term are shown in parentheses, the term may appear in either upper case or lower case throughout the Plan.

- A. **Base Billing Period.** A "Base Billing Period" is one of the billing periods comprising the Base Year. Billing Periods are established by the utility and are normally monthly or bimonthly. "Monthly" consumers would normally have 12 Base Billing Periods in their Base Year. Given a 5 month curtailment, only 5 of those Base Billing Periods would be used for measuring the amount of curtailment achieved; however, if the curtailment were to last 17 months, all 12 Base Billing Periods would be used, 5 of them twice. Under the Plan, utilities weather-normalize Base Billing Period energy consumption data before calculating the amount of curtailment achieved in a given billing period.
- B. **Base Year.** The "Base Year" is typically the 12-month period immediately preceding imposition of State-initiated load curtailment. If energy use during that period is atypical, States may select a different 12-month period as the Base Year. Weather-normalized energy consumption data from the Base Year is used in computing the amount of curtailment achieved under this Plan.
- C. **Critical Load Consumer.** A "Critical Load Consumer" is one that supplies essential services relating to public health, public safety, or energy production. In some States, types of consumers that are deemed to be of a Critical Load nature are identified in State statutes pertaining to load curtailment.
- D. **Curtailment.** "Curtailment" is load reduction, irrespective of the means by which that reduction is achieved.
- E. **Curtailment Target.** The "Curtailment Target" is the maximum amount of energy that a consumer may use during periods of State-initiated load curtailment and still remain in compliance with the State curtailment order. Curtailment Targets are figured individually for consumers. Curtailment Targets are calculated for individual Base Billing

Periods by reducing weather-normalized Base Billing Period consumption by the percentage reduction in load ordered by the State. (For example, given a weather-normalized Base Billing Period load of 1462 kWh and an order for 10% load curtailment, the Curtailment Target would be 1316 kWh.)

- F. **Excess Power Consumption.** "Excess Power Consumption" is the load subject to penalty under this Plan. Penalties are not assessed if a consumer's load (either actual load or weather-normalized load) is equal to, or less than, the Threshold Consumption Level. Excess Power Consumption is the lower of the following two values for each sampled load subject to penalty: (1) the difference between a consumer's actual (or metered) consumption level during a billing period and the Curtailment Target, or (2) the difference between the consumer's weather-normalized energy use during a billing period and the Curtailment Target.
- G. **Extra-Regional.** The expression "extra-regional" is a term of art that refers to any load, resource, or entity located outside of the region as defined in section 3.(14) of P.L. 95-501, the NW Power Act. That definition provides: "the area consisting of the States of Oregon, Washington, and Idaho, the portion of the State of Montana west of the Continental Divide, and such portions of the States of Nevada, Utah, and Wyoming as are within the Columbia River drainage basin and any contiguous areas... which are part of a service area of a rural electric cooperative served by the Administrator." Sales to PacifiCorp's Northern California consumers are therefore extra-regional. Sales to Montana Power Company's control area loads east of the Continental Divide are also extra-regional, but under this Plan they are included in Regional Load.
- H. **General Use Consumer.** A "General Use Consumer" is any non-residential consumer who does not qualify as a Major Use Consumer.
- I. **Implementation Record.** The "Implementation Record" is the collection of significant notes, memos, correspondence, and other material generated for each curtailment, whether such documents are formal or informal in nature. The Implementation Record is both a living reference document during each curtailment period and an historical record thereafter. The Utility Coordinator is responsible for maintaining the Implementation Record.
- J. **Major Use Consumer.** A "Major Use Consumer" is one who has purchased over 5 average annual megawatts during the Base Year. (Any consumer using over 43,800 MWh during the Base Year would qualify as a Major Use Consumer.)
- K. **Non-Regional.** The term "non-regional" refers to any load, resource, or entity that is located outside of the region as defined in this Plan. For purposes of this Plan, all power sales to utilities and/or consumers located outside this four-State area shall be considered non-regional sales, even if such sales are to entities that are located within the bounds of the "region" as defined in section 3.(14) of P.L. 95-501, the NW Power Act. Sales to PacifiCorp's Northern California consumers and sales to BPA's metered requirements consumers outside the four-State area are non-regional even though they are served from resources that are otherwise dedicated to serving Regional Load.
- L. **Plan.** The "Plan" is this Regional Curtailment Plan for electric energy shortages.

- M. **Region.** The "region" includes the States of Washington, Oregon, Idaho, and those portions of Montana that are west of the Continental Divide and/or within the control area of the Montana Power Company. Non-regional utilities and non-regional consumers who purchase power from regional utilities are not directly affected by this Plan since the four Pacific Northwest States lack jurisdictional authority over such utilities and consumers.
- N. **Regional Electric Energy Curtailment Analysis Model.** The "Regional Electric Energy Curtailment Analysis Model" (REECAM) is a computer program used by the Utility Coordinator and other interested parties to evaluate the status of the regional electric power system and analyze the need for region-wide curtailment. REECAM is described in detail in Appendix A.
- O. **Regional Load.** The "Regional Load" is the load placed by ultimate consumers within the region on their respective utility suppliers and is the load subject to curtailment under this Plan. Both firm and non-firm loads are to be curtailed during periods of regional load curtailment. (However, because the States expect all regional non-firm loads to be already off-line to the extent permitted by contract before imposition of regional load curtailment and since curtailment is to be measured relative to firm load, the curtailable load input in REECAM is identified as "regional firm load.") Sales to non-regional retail consumers are not included in Regional Load since Pacific Northwest States lack jurisdictional authority over such consumers and cannot, therefore, require them to curtail their purchases. Sales to utilities (whether regional or non-regional) are excluded from Regional Load; the purchasing utility sees the sale as a resource. Any curtailment of wholesale sales will occur at the retail level. In REECAM, the assumption that Regional Loads are served by a single utility makes it unnecessary to model intra-regional wholesale power sales. Non-regional (wholesale or retail) loads of regional utilities are captured in the non-regional firm sales input, since they are firm commitments that regional utilities must honor and to which they must dedicate regional resources.
- P. **State.** "State" refers to any of the four Pacific Northwest States: Washington, Oregon, Idaho, and Montana.
- Q. **State Contact(s).** "State Contacts" refer to individuals who, in an official capacity, represent their respective States in connection with curtailment issues. Appendix E of this Plan identifies the organization in each State designated to implement regional curtailment on behalf of that State as well as a primary and secondary State Contact within that organization.
- R. **State-Initiated.** "State-initiated" refers to actions taken by the States to implement their individual State load curtailment plans. The State governments' principal role during voluntary curtailment will be to assist the region's utilities in their efforts to secure the needed load reductions. Such assistance will include requests from the State governors for load curtailment by consumers in their respective States. The decision to initiate mandatory load curtailment is a State government decision made in consultation with the affected utilities in the region (through the Northwest Power Pool). The States will be directing the mandatory curtailment stages, and the utilities' primary role will be to advise and assist the States.

- S. **Threshold Consumption Level.** The "Threshold Consumption Level" is the maximum amount of energy that a consumer can use during a period of mandatory load curtailment without being subject to penalties under this Plan. The Threshold Consumption Level is measured relative to the consumer's Curtailment Target. The States may set different Threshold Consumption Levels for different consumer classes and may change such levels as they deem necessary.
- T. **Utility Contact(s).** "Utility Contacts" refer to individuals who, in an official capacity, represent their respective utilities in connection with curtailment issues. Appendix E of this Plan identifies the primary and secondary Utility Contacts appointed by each of the respective regional utility members of the Northwest Power Pool (NWPP). These individuals will be contacted directly by the States, the NWPP, and other utilities with respect to curtailment issues. BPA's Area and District Offices will disseminate curtailment information to all other regional utilities.
- U. **Utility Coordinator.** The "Utility Coordinator" refers to the Director of the NWPP. As Utility Coordinator, the Director will be responsible for consulting with the region's utilities and then notifying State Contact(s) of system conditions that might warrant implementation of the Plan. In addition, the Utility Coordinator will be responsible for: (1) conducting analytical studies to assess the initial and continuing need for curtailment, (2) maintaining a close liaison with State Contacts in reporting the status of the power system and curtailment effects, (3) assisting utilities in curtailment matters particularly with respect to technical issues and inter-utility coordination, (4) providing interested parties with analytically-based information related to curtailment, and (5) maintaining the official Implementation Record for each curtailment period.
- V. **Utility Curtailment Reports.** "Utility Curtailment Reports" are reports summarizing curtailment data; such reports are to be submitted monthly by utilities to their respective States and the Utility Coordinator. Utility Curtailment Reports are further described in Appendix D. A sample report with associated instructions is also included in the Appendix.
- W. **Weather-Normalization.** "Weather-normalization" is the procedure that utilities use to reflect the impact of weather on utility load levels. Some utilities refer to this process as "weather-adjustment." The purpose of weather-normalization is to determine what loads would have been under "normal" or "average" weather conditions. Weather-normalizing load data protects consumers from being penalized for overconsumption due to the impact of abnormal weather conditions.

SECTION IV. CURTAILMENT STAGES

Under this Plan, State curtailment directives apply to all Regional Loads. Curtailment is requested or ordered as a percentage of historical, weather-normalized (Base Billing Period) electric energy consumption. For example, if 15% curtailment were ordered in Stage 3, consumers who were already complying with a Stage 2 request for 10% voluntary curtailment would only need to curtail an additional 5%.

The five stages of curtailment can be summarized as follows:

<u>Stage #</u>	<u>Nature</u>	<u>Curtailment %</u>	<u>Type of Curtailment</u>
Stage 1	Voluntary	No Specified %	Uniform among all regional consumers
Stage 2	Voluntary	5% +	Uniform among all regional consumers
Stage 3	Mandatory	5% - 15%	Uniform among all regional consumers
Stage 4	Mandatory	15% 15% + 15% +	Residential Consumers General Use Consumers Major Use Consumers
Stage 5	Mandatory	% Associated with Stage 4 + additional curtailment	Continued Consumer Curtailment plus Utility Action, including Plant Closures and possible Black-Outs

Although the curtailment stages are generally associated with increasing deficits, the stages are not necessarily implemented in a sequential manner. For example, the initial State determination of the need for curtailment could easily result in a Stage 2 curtailment order. (It is likely that the States would initially call for voluntary curtailment, although the requested level might be significantly more than 5%.) If the situation were to ease, the States might be prompted to rescind Stage 2 directives and replace them with a Stage 1 appeal for voluntary curtailment. Alternatively, if the situation were to deteriorate rapidly, the States could move directly into Stage 4 curtailment.

A. Voluntary Curtailment

- (1) **Stage 1.** Stage 1 is informal in nature and is associated with the amount of curtailment that could be elicited by media requests for prudent energy use. Such requests would be accompanied by newspaper, TV, and/or radio reports about problems that the region's utilities are facing. Any ongoing utility efforts urging prudent use would be continued and possibly stepped up. States would likely call for Stage 1 curtailment if REECAM forecasted a need for a modest amount of curtailment over the anticipated shortage period, and energy planners thought it prudent, based on their analysis of the situation, to actively encourage the public to pay attention to their energy consumption habits.
- (2) **Stage 2.** Stage 2 is the second, and final, stage of voluntary curtailment. It is associated with curtailment of at least 5% of regional load relative to consumption in the Base Year. The primary differences between curtailment stages 1 and 2 are in how the need for curtailment will be communicated to consumers and on the amount of curtailment required. In stage 2 (and later stages as well), utilities will be required to provide curtailment tips to consumers. It is anticipated that the second stage of voluntary curtailment, with its more specific guidance for consumers, will elicit more curtailment than the broader, more general approach of Stage 1.

B. Mandatory Curtailment

Stages 3-5 are mandatory and will be implemented only if the governors or appropriate State authorities have signed formal declarations calling for mandatory curtailment of electric loads. It is unlikely that mandatory curtailment will ever be required given that both the States and utilities prefer voluntary curtailment, and voluntary curtailment is expected to produce significant energy savings. However, since it is prudent to plan for a "worst case" scenario, mandatory curtailment procedures have been developed to prevent the region from moving directly from voluntary curtailment (that has failed to produce the required load reductions) to rotating black-outs. Mandatory curtailment is, in effect, an insurance policy that is described in sufficient detail in this Plan that it is a realistic "intermediate" option; it is feasible for most regional utilities to implement in the manner described, and those utilities that are unable to comply with the requirements of the Plan may appeal to their State for needed exemptions.

There are several reasons why the States might choose to impose mandatory curtailment in lieu of continuing to solicit voluntary curtailment. If the States believe that regional consumers as a whole are curtailing, but making only a half-hearted effort despite State pleas, they might impose mandatory curtailment in order to provide an added incentive to curtail up to the full amount of the State request. Another reason for imposing mandatory curtailment would be to achieve a more equitable sharing of the curtailment burden: increasing the level of voluntary curtailment further taxes those that have already striven to comply with State requests relative to those who have made no such effort.

- (1) **Stage 3.** Stage 3 is the first mandatory curtailment stage and is associated with curtailment levels (i.e., percentage load reductions) of at least 5% and no more than 15%. (The maximum amount of curtailment that is expected to be widely achievable in the residential sector is expected to be 15%. Stage 3 mandatory curtailment, which involves the same percentage load reduction by all regional consumers, would therefore be capped at the 15% level. Voluntary curtailment in excess of that amount would still be encouraged from those who could safely provide additional curtailment.)
- (2) **Stage 4.** In Stage 4, uniformity ends for regional consumers as a whole, but it is preserved within consumer classes. The States will probably continue to seek 15% curtailments from the residential class, but General Use and Major Use Consumers will be asked for further load reductions. In all likelihood, Major Use Consumers will be asked for deeper curtailments than General Use Consumers. Because utilities have different consumer mixes, Stage 4 would mean the end of uniform curtailment (on an overall percentage basis) among utilities.
- (3) **Stage 5.** Stage 5 is, in effect, curtailment of the last resort. All Stage 4 curtailments would be continued and additional measures undertaken. The States would work closely with utilities to ensure that the needed curtailment is

achieved – by whatever means necessary. Even deeper curtailments would be encouraged or mandated, and Major Use Consumers might be shut down. Even so, black-outs, potentially affecting all consumers, might be inevitable.

SECTION V. INITIATION OF REGIONAL LOAD CURTAILMENT

This section describes how the States determine that regional curtailment is needed (how much curtailment is required and the appropriate curtailment stage to achieve the needed load reduction). Also described is the process by which regional curtailment will be initiated and implemented.

A. Determination of the Need for State-Initiated Curtailment

The procedure for determining the need for State-initiated curtailment will be as follows:

- (1) **State Notification of Potential Energy Shortages by the Utility Coordinator.** As Director of the NWPP, the Utility Coordinator is responsible for working with the region's utilities and keeping abreast of power system conditions. Whenever it appears that a protracted energy shortage could be developing, the Utility Coordinator shall so notify Utility Contacts and State Contacts.
- (2) **Updating of Load/Resource Studies.** As energy conditions dictate, the Utility Coordinator shall examine the results of REECAM and update other ongoing studies of regional load and resource conditions to reflect the latest electric system conditions. The purpose of these efforts is to provide an analytical basis for determining whether or not there is a need for State-initiated regional load curtailment to alleviate the energy deficiency.
- (3) **Evaluation of the Need for State-Initiated Curtailment.** Following preparation of the numerical analysis of regional load/resource conditions, the Utility Coordinator will convene a meeting of State Contacts, Utility Contacts, and other interested utilities for the purpose of determining whether the numerical analysis demonstrates a significant forecasted regional deficit. Based on the information presented at the meeting, the four State Contacts will reach consensus on whether regional load curtailment is required.
- (4) **Determination of the Appropriate Stage and Level of Curtailment.** Although the States will be aware of an energy shortage as it develops, they will become actively involved in managing the shortage only after reaching the conclusion that State-initiated load curtailment is needed to manage the regional energy deficiency. The determination as to which curtailment stage/level combination is appropriate for the particular circumstances existing at the time will normally be made by States in consultation with the Utility Coordinator and the region's utilities.

The following procedure could be used to establish the applicable curtailment stage and associated curtailment level:

- (a) **Shortage Period.** Establish the time period over which the shortage is anticipated to occur.
- (b) **Amount of the Shortage.** Bracket the amount of the shortage, by month, quantifying the shortage based on current expectations of the best and worst possible outcomes given existing system conditions (as described by the Utility Coordinator) and a variety of potential events affecting system loads and resources.
- (c) **Curtailment Level.** Establish the curtailment level (i.e., percentage load reduction) required to alleviate the deficiency in each month of the shortage period. In so doing, take into account the full spectrum of possible deficits and their associated probabilities of occurrence.
- (d) **Lead Time.** Estimate the amount of lead time before the onset of the physical shortage. (It may be that utilities can meet all of their load at the present time but anticipate being unable to do so in the future; alternatively, the deficit may already be affecting the utilities' ability to provide reliable electrical service.)
- (e) **Applicable Curtailment Stage and Percentage Level.** Select the applicable curtailment stage and level based on the above data while keeping in mind the following considerations:
 - (1) **Curtailment Adequacy.** Ensure that the proposed level of curtailment is adequate to achieve the required results, giving reasonable weight to a worst-case scenario. Bear in mind that curtailments are measured relative to historical, weather-normalized energy consumption (Base Billing Period) data, not current load levels. Adjustments of Base Billing Period data and loads exempted from Plan requirements will reduce the amount of curtailment achieved relative to the requested percentage load reduction.
 - (2) **Continuity.** Avoid changing stages and levels any more frequently than absolutely necessary. Changing stages and levels is costly and difficult, particularly when there is a movement from voluntary to mandatory curtailment.
 - (3) **Preference for Voluntary Curtailment.** Avoid mandatory curtailment if practicable since mandatory curtailment will be both administratively and politically costly relative to voluntary curtailment.
 - (4) **Low Level Curtailment.** Specify a longer period of low level curtailment in lieu of a shorter period of more extreme curtailment. This preference reflects the following:

- (a) **Consumer Adjustment and Impact on Consumers.** It takes time for consumers to adjust consumption levels. The more extreme the adjustment, the more difficult the adjustment becomes and the greater the hardship on consumers.
- (b) **Impact on Utilities.** Lower levels of curtailment have a smaller long-term impact on utilities. (The revenue impact is spread over time and the lasting impacts on consumption may be lower.)
- (c) **Degree of Curtailment and Difficulty of Changing Course.** The higher the curtailment stage and level and the more drastic the actions required of consumers, the more difficult it is to change course – both administratively and politically. (In other words, it is relatively easy to allow requests for low key curtailment appeals to fade away without much to-do. The public is also more likely to understand the need for mandatory curtailment if it has been preceded by a period of on-going appeals for voluntary curtailment. In contrast, announcing the need for mandatory curtailment and then reversing the order soon thereafter as a result of dramatically changed circumstances would likely lead to consumer cynicism quite apart from the administrative difficulties involved.)
- (5) **Worst-Case Planning.** If possible, select a curtailment level that would enable the States to avoid calling for Stage 4 or Stage 5 curtailment even if worst-case conditions were to materialize.
- (6) **False Starts.** Avoid triggering an unnecessary call for curtailment. (The goal is to avoid implementing the Plan for a short-term problem that might be caused by "noise" in load and/or resource variation and to eliminate false starts such as could occur when a problem is real but unexpectedly dissipates.)

B. Process for Initiating Regional Load Curtailment

- (1) **Briefing Package.** Once the State Contacts have agreed on the need for, and appropriate level of, regional load curtailment, the Utility Coordinator, working together with the State Contacts, Utility Contacts and other interested utilities, will prepare a document explaining:
 - (a) the reasons behind the shortage;
 - (b) the level of curtailment required to bring the system back into balance; and
 - (c) the expected duration of the problem.

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The Utility Coordinator is responsible for preparing the material to ensure that State managers in all four States are provided with exactly the same factual information about the energy situation. Any background material and numerical analysis useful for briefing Energy Office, Utility Commission, and other State government personnel will also be included. The Utility Coordinator will distribute this material to each State Contact and all regional utilities.

- (2) **State Management Briefings.** Once the briefing materials have been disseminated, State Contacts will brief their management on the need for regional curtailment.
- (3) **Coordination Among State Contacts.** Following the briefing of State management, the State Contacts will again coordinate with each other to ensure that the consensus developed in the evaluation process remains and that State management in each State is comfortable with the joint recommendation. To the extent changes in the original recommendation are indicated as a result of intra-State consultations, the State Contacts will work together to reach a new consensus.
- (4) **Establishing the Implementation Record.** Once the State Contacts have affirmed the need for a given level of regional curtailment, they will begin developing situation-specific implementation procedures. Throughout the curtailment, significant agreements will be put in writing and included as part of the Implementation Record for the curtailment.
- (5) **Governors' Briefings.** The State Contacts will brief their respective State governors on the need for region-wide load curtailment.

C. Process for Implementing State-Initiated Curtailment

- (1) **Declaration of Curtailment.** Once any necessary inter-State coordination has occurred (procedures have been established and decisions made) and upon receipt of any applicable curtailment orders (if mandatory curtailment has been declared), the State Contacts will formally notify the Utility Coordinator and all utilities operating within their respective borders that regional electric load curtailment is in effect.

If any stage associated with a specific level of curtailment is declared (Stages 2-5), the States will publicly announce the need for curtailment and provide all utilities operating within their respective borders with written instructions regarding utility obligations during periods of State-initiated load curtailment. "Lost revenue" payments to utilities under section 11(b) of the utility power sales contract with BPA are triggered by BPA and one or more State governors requesting voluntary curtailment; State action alone will trigger the payments if mandatory curtailment has been declared. (Note: while declaration of a shortage by the States may trigger curtailment payments by BPA, such declaration would not necessarily cause BPA to declare a "planning insufficiency" such as described in section 7 of the utility power sales contract.)

- (2) **Public Information.** In order to effect State-initiated curtailment, curtailment information must be made available to the general public, the press, and other interested parties. The types of materials that need to be prepared and the parties responsible for their preparation are identified in Appendix B, "Types of Curtailment Information."
- (3) **Utility Implementation of State-Initiated Curtailment.** When notified by their respective States that their State plan has been activated, utilities shall immediately initiate curtailment on their own systems in conformance with their State plan and applicable utility-specific curtailment plans. (Not all utilities have curtailment plans and, of the existing plans, some are only designed to address short-term emergencies, not protracted energy shortages.)

SECTION VI. ADMINISTRATION OF STATE-INITIATED CURTAILMENT

A. Utility Activities

(1) Overview

(a) Ability of Utilities to Comply with Plan Requirements

The administrative requirements specified in this section have been developed primarily with the capabilities of mid-size to large utilities in mind. The States recognize that some utilities may be unable to comply with all of these provisions due to a lack of administrative personnel, the inability to modify their computerized billing programs to apply the specified rate penalties, the lack of a computerized billing system altogether, etc. The States expect utilities to conform to the requirements of their respective State plans to the extent possible. However, as needed, utilities may petition their respective States for exemption from specific requirements of their State plan. (See section VI.A(7)(d).)

(b) Stage-by-Stage Utility Administrative Obligations

Upon notice that their respective States have called for regional load curtailment, the region's utilities shall immediately begin complying with the directives of their State plan. All requirements for lower level Stages continue to apply to higher level stages. Throughout the curtailment period, utilities are urged to provide consumers with as much useful information as they reasonably can. The requirements specified below represent the minimum actions the utility must take to remain in compliance with this Plan.

- (1) **Stage 1.** In Stage 1, utilities are required to begin (or continue if they have already begun) providing curtailment information to their consumers. Both the nature of the information and the means by which they convey it (media communications, bill stuffers, etc.) are left to the utility. Utilities shall also assist States, as appropriate, in briefing the media about the shortage.

(2) Stage 2. In Stage 2, utilities must:

- (a)** notify their consumers of the percentage level of State-initiated voluntary curtailment;
- (b)** provide curtailment tips to consumers;
- (c)** answer consumer questions about curtailment;
- (d)** provide curtailment reports to the States and the Utility Coordinator; and
- (e)** provide more detailed information to the media than made available in Stage 1.

(3) Stage 3. In Stage 3, utilities must:

- (a)** notify their consumers of the percentage level of State-ordered mandatory curtailment;
- (b)** calculate weather-normalized Base Billing Period data and Curtailment Targets for all consumers who are subject to audit;
- (c)** provide Curtailment Target information to all consumers who request such data for their own accounts. At a minimum, utilities shall provide Curtailment Targets for the most recently completed, the current, and forthcoming billing periods.
- (d)** provide audited consumers with information about how to apply for exemption and adjustment of Base Year data; (utilities may elect to provide this information only to those audited consumers subject to penalties under this Plan);
- (e)** process requests for exemption and Base Year data adjustments from consumers selected for audit and who would otherwise be subject to penalties; and
- (f)** implement the sanctions aspect of the Plan (see section VI.A.5, below).

(4) Stage 4. In Stage 4, utilities must notify their consumers of any applicable changes in State-initiated mandatory curtailment.**(5) Stage 5. In Stage 5, utilities must collaborate with the States to develop and implement the most effective methods for securing the required load curtailment.****(2) Suggested Curtailment Actions**

Utilities shall disseminate information to consumers regarding actions they can take to reduce their electric energy consumption. The States and utilities will work together to develop this material. The recommendations will be based on the actions described in Appendix C, "Curtailment Measures." Utilities will be responsible for tailoring this curtailment information to their service areas, adding utility-specific information (such as whom to call with curtailment

questions), printing the material in an appropriate form (brochures, bill stuffers, etc.) and disseminating it to their consumers.

The curtailment tips that the utilities provide to their consumers should enable most consumers to meet their individual Curtailment Target. The measures should be business-specific for Major Use Consumers and, to the extent possible, for large General Use Consumers. The purpose of identifying specific measures and explaining their respective impacts on energy consumption is to familiarize consumers with options for reducing consumption, while leaving them free to curtail in the manner that is most acceptable to them.

(3) **Base Year Data and Curtailment Targets**

(a) **Identification of the Base Year**

Each time the Plan is activated, the States will identify the applicable Base Year. Once established, the Base Year for a shortage will remain unchanged, irrespective of the length of the curtailment period.

(1) **Base Year.** Normally, the Base Year is the 12-month period immediately preceding initiation of load curtailment under this Plan. For purposes of application of the Base Year concept to load curtailment under this Plan, the Base Year is subdivided into Base Billing Periods; a "monthly" consumer will likely have 12 Base Billing Periods; a "bi-monthly" consumer, 6 Base Billing Periods, and a "seasonal" consumer will probably have 2 Base Billing Periods. Base Year and Base Billing Period data shall be weather-normalized using the utility's standard procedures. (Utilities may choose to weather-normalize only those loads that are highly weather-dependent.) Utilities may apply to the States for hardship exemption from the weather-normalization requirement.

(2) **Alternative Base Year.** The States may choose an alternative Base Year if they decide that the data for the 12-month period immediately preceding load curtailment is atypical and its use would result in an inequitable allocation of curtailment among the region's consumers. Potential causes of atypical data might include, among others, curtailment being in effect during some months of the Base Year or a severe economic depression during that period.

(b) **Adjustment of Base Year and/or Base Billing Period Data**

Although the Plan calls for curtailment each billing period relative to the consumer's weather-normalized energy consumption in the Base Billing Period, there will be cases in which such curtailment could cause extreme hardship due to significant changes in the consumer's circumstances over the past year.

During mandatory curtailment, any consumer selected for audit may appeal to its utility for adjustment of applicable Base Year or Base Billing Period data. As appropriate, the utility might adjust all Base Year data or only data for certain Base Billing Periods.

Any consumer that has requested an adjustment and is not satisfied with its utility's determination relative to its request may appeal to the State for reconsideration.

(c) **Estimating Base Billing Period Data for Consumers for Whom No Base Billing Period Data Exists**

Base Billing Period data must be obtained or developed for any consumer who is audited under this Plan. Utilities must estimate the Base Billing Period data for any audited consumer for whom actual data either doesn't exist or is found to be atypical or inaccurate. For most consumers there will be at least some actual Base Year data, although if the consumer is new, has moved within the year, or there have been administrative changes in the utility (such as changing meter reading dates), there may not be a full year's worth of such data.

Utilities shall estimate Base Billing Period data for all Major Use Consumers for whom no actual billing data exists. Utilities who elect to include residential and General Use Consumers without actual Base Billing Period data in the pool of consumers subject to audit must also estimate Base Billing Period data for any such consumer selected for audit.

(d) **Curtailment Targets**

At a minimum, the utility must determine the Curtailment Target for each consumer audited for compliance with the mandatory curtailment order. Utilities must also generate both retrospective and prospective Curtailment Target data for all consumers who have requested such information for their own accounts.

(e) **Communicating Curtailment Target Information to Consumers**

During mandatory curtailment, utilities are required to provide retrospective, current billing period, and forthcoming billing period Curtailment Target information to any consumer who so requests. Utilities are also required to provide retrospective Curtailment Target information to any audited consumer who will be issued a warning or penalty. This information provides the consumer with direct feed-back demonstrating the numerical basis for the utility action. At their option, utilities may provide Curtailment Target information to other consumers or consumer classes as well.

(4) **Auditing Consumers for Compliance with State Orders for Mandatory Load Curtailment**

Under the Plan, utilities are required to audit consumers for compliance with the order for mandatory load curtailment as described herein. Consumers found to be in violation of such orders will be subject to penalties.

(a) **Number of Audits – Sample Size**

Each month, a utility must audit a number of consumers equal to the minimum sample size plus any consumers penalized in the previous billing period. The minimum sample size is one percent of Residential Users, five percent of General Use Consumers, and 100% of Major Use Consumers. The number of consumers for this calculation is to be based on the total number of consumers in each class. The number of consumers exempted or excluded from audit (see section VI.A(4)(b), below) will not affect the sample size. If the States determine that compliance with the mandatory curtailment order is low, they may increase the required sample sizes during the curtailment period.

Auditing consumers in all sectors treats all consumers equitably and likely results in additional curtailment. By allowing utilities to random sample their smaller users for compliance, the States are minimizing the administrative burden of enforcement. Requiring 100% auditing of Major Use Consumers will give the greatest return on the enforcement dollar. Utilities with the ability to audit more consumers than required by the Plan are encouraged to do so.

(b) **Sampling Process**

- (1) **Residential and General Use Consumers.** Unless a utility is auditing 100% of its eligible Residential Users and General Use Consumers, all such consumers selected for audit shall be chosen on a random sample basis.

The following consumers are not subject to audit:

- (a) consumers granted an exemption under this Plan;
- (b) consumers with an estimated power bill in the current billing period; and
- (c) consumers with estimated Base Billing Period data, assuming the utility elects to exclude such consumers; however, if the States have identified a compliance problem arising from this "exclusion" provision during the course of a curtailment, they may direct affected utilities to include consumers with estimated Base Billing Period data in the pool of consumers subject to audit.

Exclusions may be handled either by initially removing excluded consumers from the pool or by including such

consumers in the pool and continuing to draw samples until enough "auditable consumers" have been identified.

New samples shall be drawn each month. Any Residential or General Use Consumer penalized under this Plan shall continue to be audited until its energy use falls below the Threshold Consumption Level. Once such consumer's energy use falls below that level, s/he will be audited again only if selected through the utility's standard sampling process. (Such selection for re-audit would normally be as a result of random sampling, but it could be automatic if the utility audits all consumers each billing period.)

- (2) **Major Use Consumers.** All Major Use Consumers shall be audited each month, including those with estimated Base Billing Period data. Utilities are expected to work with any Major Use Consumer who has estimated Base Billing Period data to ensure that the estimated data is reasonable, since penalties may be assessed if the consumer's use exceeds its Curtailment Target and the amount of energy potentially subject to penalty is so great.

(5) **Penalties for Non-Compliance**

(a) **Nature of Penalties**

The Plan identifies penalties for non-exempted consumers who fail to comply with State orders for mandatory load curtailment. Penalties may vary from State to State due to differing statutory constraints, but the penalties under this Plan are structured as follows:

<u>Violation *</u>	<u>Penalty</u>
First Bimonthly Violation	10¢ per kWh of excess use
Second Bimonthly Violation	20¢ per kWh of excess use
Third Bimonthly Violation	40¢ per kWh of excess use
Fourth Bimonthly Violation	1 Day Disconnection + 40¢ per kWh of excess use
Fifth Bimonthly Violation	2 Day Disconnection + 40¢ per kWh of excess use
Sixth and All Subsequent Violations	Penalties are determined by the State. Civil penalties or other corrective actions would be possibilities.

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- * The penalty for violators who are billed every two months will escalate on every power bill in which they are subject to penalty. Consumers billed on a monthly basis will be assessed the same

penalty on two successive occasions before incurring the next higher level penalty. This procedure ensures equitable treatment of all regional consumers in the application of penalties irrespective of their utility's billing practices. During any period of curtailment, assessed penalties remain "on the record" for the purposes of administration of subsequent penalties, even if there has been an intervening period of "compliance." However, once all curtailment orders have been lifted and normal utility operations restored, penalty records are effectively purged, so that consumers would start with a "clean slate" if mandatory curtailment were imposed again at a later date.

Utilities are expected to adhere to their standard disconnect criteria and procedures whenever disconnecting consumers in accordance with this Plan. Health, safety, and welfare considerations are to be taken into account, and consumers must pay normal disconnect and reconnect charges. Consumers whose use exceeds the Curtailment Target during a period in which they have also been disconnected are subject to financial penalties as well.

(b) Calculation of Financial Penalties

Financial penalties will be calculated by multiplying the consumer's Excess Power Consumption each billing period as determined in section VI.A(5)(b)(2), below, by the appropriate penalty level identified in section VI.A.(5)(a), above. The manner in which Excess Power Consumption is calculated under this Plan is designed to achieve two goals: (i) avoid penalizing consumers for relatively insignificant infractions by penalizing only those whose use exceeds the Threshold Consumption Level, and (ii) make the determination of the penalty to be imposed on weather-sensitive consumers appear reasonable to affected consumers, thereby significantly reducing (if not eliminating) disputes with consumers unfamiliar with the impact that weather has on loads.

(1) Threshold Consumption Level

The Threshold Consumption Level is in essence a "dead band" or margin of tolerance above the Curtailment Target. Consumers using more energy than their Curtailment Target but less than the Threshold Consumption Level will be issued warnings, but not otherwise penalized for their excess consumption relative to their Curtailment Target. In effect, the Plan is designed to be administered much like the speed limit is usually enforced: tickets are given only if the violation is "significant;" it is seldom if ever that a vehicle is stopped for going 56 mph in a 55 mph zone. This approach, embodied in the Plan in the form of the Threshold Consumption Level, is expected to reduce the number of

complaints about mandatory curtailment; fewer consumers will be subject to penalty, and those consumers that are in fact penalized will have significantly overconsumed relative to their Curtailment Target. Since fewer consumers will be penalized, it is likely that there will be fewer requested adjustments to Base Billing Period data and/or requested exemptions from Plan requirements, thus reducing the administrative burden of curtailment enforcement on both the States and utilities.

The Threshold Consumption Level assigned to each consumer class is identified in the table below. If the required load reductions are not occurring during a curtailment period, the States may change the percentage relationship of the Threshold Consumption Level to the Curtailment Target so as to effect better compliance with the curtailment order.

<u>Type of Consumer</u>	<u>Threshold Consumption Level</u>
Residential Consumers	10% above Curtailment Target
General Use Consumers	10% above Curtailment Target
Major Use Consumers	2% above Curtailment Target

(2) **Excess Power Consumption Calculation**

Since it may be difficult to explain weather-normalization to the general public, the consumer's weather-normalized load is used for determining Excess Power Consumption only in those cases where its use would benefit the consumer. That would be the case when the weather was colder than "average" in the winter or hotter than "average" in the summer.

The purpose of weather-normalizing is to account for the real and reasonable differences in energy consumption that will naturally occur due to the vagaries of the weather. However, if weather-normalizing loads has the effect of increasing loads relative to actuals (as it does if the weather is unseasonably mild), weather-normalizing would probably create a public relations problem for utilities. They would have to explain to mystified consumers why they are being penalized on energy that they "did not take." Imposing a penalty in such cases could well alienate consumers (including those making a good faith effort to comply with the curtailment order) at the very time that public cooperation in achieving curtailment is most needed. Furthermore, the mild weather will, in itself, have had the impact of reducing the need for curtailment.

Penalties are not assessed if a consumer's load (either actual load or weather-normalized load) is equal to, or less than, the

Threshold Consumption Level. Excess Power Consumption is the lower of the following two values for each sampled load subject to penalty:

- (a) (Actual Load) minus (Curtailment Target) or
- (b) (Weather-Normalized Load) minus (Curtailment Target)

To implement this concept, some utilities might prefer to weather-normalize all sampled loads, compare the weather-normalized results to the "actuals" on a consumer-by-consumer basis to identify the lower of the two loads, determine if this load exceeds the Threshold Consumption Level, and, if so, calculate the consumer's Excess Power Consumption. Other utilities may choose first to identify those consumers who would be subject to penalty based on actual loads and weather-normalize only those identified loads to determine (1) if the consumer would still be subject to penalty if weather-normalized loads were used instead of actuals and (2) if so, the amount of such consumer's Excess Power Consumption.

(c) Assessment of Penalties

(1) Penalties vs Warnings

Consumers will be assessed penalties only if they have Excess Power Consumption and if they are to be penalized based on the utility's penalty assessment procedures described below. Any sampled consumer who is not penalized and whose use exceeds the Curtailment Target will receive a warning.

(2) Penalty Assessment Procedures

Utilities sampling at the mandated minimum percentages for each sector as specified in this Plan [1%-5%-100%] (or as otherwise specified by the States and reflected in the Implementation Record) shall assess penalties on all consumers with Excess Power Consumption.

Utilities sampling a higher percentage of consumers than required under the Plan may choose among the following penalty assessment options:

- (a) Assess penalties on all sampled consumers with Excess Power Consumption; (due to the 100% sampling requirement, this methodology must be used for Major Use Consumers even if the utility chooses option (b), below, for its other consumer classes); or

- (b) Develop a ratio of the minimum percentage sample size to the actual percentage sampled for the Residential and/or General Use Consumer classes. Multiply the resulting percentages by the total number of violators in each respective consumer class to determine the minimum number of penalties that must be assessed in each sector. (This methodology allows utilities to determine the approximate number of violators that would have been identified in a sample of minimum size.) Calculate the percentage violation for each individual consumer that has been sampled (Excess Power Consumption divided by Curtailment Target) and apply penalties to the "worst offenders" in the overall sample based on their percentage "Excess Power Consumption." If there are clear groupings of consumers in terms of percentage violation, utilities may choose to penalize all consumers with violations of approximately the same magnitude, rather than penalizing only the exact number of consumers that must be penalized based on the ratio of sampling percentages. In addition to penalizing the "worst offenders," utilities shall also penalize all consumers who were penalized in the previous billing period and who still have Excess Power Consumption.

(3) Treatment of DSIs

Penalties applicable to BPA's direct-service industrial customers will be assessed by the States based on billing data provided by BPA.

(d) Billing Consumers for Penalties

Utilities may describe the penalty on the power bill as "State-mandated" and shall include any State-provided material describing the penalty aspect of the Plan as a bill stuffer in the bills of penalized consumers. The States will consider printing this material on State letterhead so as to reinforce the public's understanding that penalties are due to a violation of State mandate. Utilities shall note that failure to pay penalties will result in service disconnection in accordance with standard disconnect criteria and procedures.

(e) Treatment of Penalties Pending Adjustment/Exemption Determinations

Consumers who have applied for adjustment of Base Billing Period data and/or exemption from mandatory curtailment may request a stay of enforcement of the penalty aspect of the Plan pending a final decision regarding its request. Any consumer who has been granted such a stay

shall be subject to retroactive penalties as applicable if the request is ultimately denied.

(f) **Use of Funds Collected under the Penalty Provisions of the Plan**

Funds collected under State-ordered penalty provisions of this Plan shall be set aside in a separate account. The ultimate disposition of these funds will be determined by the appropriate State commission in the case of investor-owned utilities and by the governing bodies of publicly-owned utilities.

(6) **Incentives**

Whenever curtailment is in effect, individual utilities are encouraged to implement creative incentive programs (such as incentive payments or curtailment contests) to motivate consumers to provide additional load reductions relative to their Curtailment Targets.

(7) **Exemptions**

(a) **Consumer Application for Exemption**

Utilities are responsible for informing their consumers how to apply for exemption from State-ordered mandatory load curtailment. Utilities may elect to process exemptions only for audited consumers who are penalized.

Consumers seeking an exemption from any part of their State plan shall apply first to their utility and then, if dissatisfied with that outcome, to their respective State. The State will not consider any consumer's appeal unless it has first been processed by the consumer's utility.

(b) **Granting Consumer Requests for Exemption from Mandatory Curtailment**

The following guidelines provide a basis for ensuring consistent exemption decisions throughout the region. At the time the States actually initiate curtailment, they will develop more detailed guidelines regarding exemptions and provide them to all regional utilities.

No consumer will be granted an automatic exemption from mandatory State-ordered load curtailment. Exempted consumers should also be told that such status may not protect them from black-outs in Stage 5.

(1) **Critical Load Consumers**

Critical Load Consumers may be exempted once they have demonstrated to their utility that they have eliminated all non-

essential energy use and are using any reliable, cost-effective, available back-up energy resources to serve their load. Critical Load Consumers are those that supply essential services that provide for public health, public safety, or energy production. The following is a non-inclusive list of typical Critical Load Consumers:

- (a) Hospitals, nursing homes, and other health facilities;
- (b) Police and fire stations;
- (c) Emergency services including essential communications;
- (d) Sewage treatment and pollution control facilities;
- (e) Municipal and public water treatment and pumping facilities;
- (f) Public mass transit including airports, bus terminals, train stations; and
- (g) Energy Supply and Storage Facilities such as:
 - Refineries;
 - Oil and gas pipelines;
 - Coal handling facilities;
 - Wood waste processing and handling facilities directly associated with energy production; and
 - Power generating facilities.

(2) **Other Consumers**

Exemptions for consumers not qualifying as Critical Load Consumers under this Plan will be evaluated based on whether curtailment would result in unreasonable exposure to health or safety hazards, seriously impair the welfare of the affected consumer, cause extreme economic hardship relative to the amount of energy saved, or produce counterproductive results.

(c) **Utility Record-Keeping Relative to Consumer Exemptions**

Utilities will need to maintain a list of all consumers applying for exemption, noting the account, the nature of the requested exemption (Base Year adjustment or exemption from the mandatory curtailment order), the rationale provided by the consumer, and the action taken by the utility with respect to the request. This information is to be made available to States upon request. States will need such data to review the appropriateness of utility determinations regarding consumer requests for adjustment of Base Year data or exemption from Plan requirements.

Utilities shall report summaries of their exemption determinations to their respective States on a monthly basis.

(d) **Utility Exemption from State Plan Requirements**

Utilities may appeal to their respective States, requesting an exemption from any aspect of their State plan. Their petition for exemption should identify the specific requirements from which they wish to be exempted, the reason(s) behind their request, and alternative actions that they can reasonably take in lieu of complying with such requirements.

(8) **Measurement of the Amount of Curtailment Achieved and Determination of Compliance**

(a) **Relationship of Consumer Curtailment to System Curtailment**

Although consumers within a given utility's service area may curtail by the amount requested by the State, the utility's system load may not reflect the same percentage load reduction. Utility loads will be influenced by such factors as: the amount of power that the utility sells to non-regional consumers (and is not subject to curtailment under this Plan), intra-regional power sales to other utilities, load growth not reflected in the utility's Base Year totals, line losses, Base Year adjustments, exemptions, and weather-normalization.

(b) **Utility Role in Curtailment Measurement**

To determine the amount of energy saved from State-initiated curtailment, the States will rely on utilities to make the necessary savings calculations.

(c) **Utility Curtailment Report**

At all times during State-initiated regional load curtailment, utilities shall provide their respective States and the Utility Coordinator with consumption and savings data on a monthly basis in the form specified in Appendix D. By adopting a common curtailment savings reporting form for use by utilities in all four States, the States are ensuring that utilities are prepared for curtailment, curtailment data is consistent among utilities, curtailment administration is facilitated, and a common data base of curtailment information is established.

Although the form must be submitted monthly, the States will not require utilities to modify their existing billing procedures; bimonthly or seasonal accounts, for example, need only be noted as such; curtailment information for such accounts need not be gathered or reported on a monthly basis.

The form has been designed so as to include any curtailment information that would be required for curtailment administration. To the extent that

circumstances at the time of actual load curtailment dictate the need for additional data or more frequent data submittals, the States shall so inform the utilities and the utilities shall use best efforts to comply with the State request.

(9) **Special Arrangements**

- (a) **Use of Consumer-Owned Generation Facilities** The States' mandatory curtailment order applies only to electric energy purchased from a utility: all consumers are required to reduce their electric energy purchases from their utility by the required percentage. However, consistent with their respective utility's needs for safety and system protection, consumers having their own generation facilities or access to electricity from non-utility power sources may use energy from those other sources to supplement their curtailed power purchases from their electric utility. Hence, the total energy consumption (electric or otherwise) of such consumers may not in fact be reduced from pre-curtailment levels.
- (b) **Curtailment Scheduling.** During periods of mandatory curtailment, a consumer is obligated to provide the requisite amount of curtailment within each billing period. Within that period, and subject to equipment limitations and utility rules on load fluctuations, consumers are free to schedule their curtailment so as to minimize the economic cost, hardship, or inconvenience they experience as a result of the mandatory curtailment requirement.
- (c) **Case-by-Case Arrangements** Utilities may choose to work creatively with individual consumers to secure additional curtailments as appropriate.

B. **State Activities**

(1) **Providing Curtailment Information to Utilities**

States shall provide utilities with information regarding curtailment administration and work with utilities to develop curtailment tips for consumers. (See Appendix B, "Types of Curtailment Information" and Appendix C, "Curtailment Measures.")

(2) **Processing Utility Requests for Exemption and Second Level Consumer Appeals for Adjustments and/or Exemptions**

The States shall process all utility requests for exemption from Plan requirements. Exemptions will be granted to those making a convincing case for their request.

The States shall also process those consumer requests for either exemption or adjustment of Base Year data where the consumer is appealing its utility's

determination. Throughout the appeals process, the States will periodically inform the appealing consumers and their respective utilities of the status of the appeals.

(3) **Periodic Reassessment of Administrative Decisions and Maintenance of the Implementation Record**

Together, the States will review the appropriateness and continued applicability of implementation decisions on a monthly basis, or as otherwise indicated. Significant decisions shall be recorded in the Implementation Record. The Implementation Record will not be a formal document; rather it will simply be a record of decisions and agreements made by the States relative to the present shortage. The Implementation Record will be a living document that will be supplemented by the States as required during the shortage period. Following the curtailment it can be used as a reference document, providing an historical record of the actions taken and the results thereof.

The types of matters that will be addressed in the periodic reviews and which may be reflected in materials that will become part of the Implementation Record include:

- (a) **Achievements and Objectives.** Analysis of the amount of curtailment actually achieved based on the data provided in the Utility Curtailment Reports and a review of the most recent REECAM results;
- (b) **Curtailment Stage and Level.** Identification of the applicable curtailment stage and level; also, any identified procedures for changing the applicable curtailment stage and/or level;
- (c) **Public Information.** The general agreement among the States as to how to disseminate the curtailment message: i.e., the tenor of the message, the date of the initial announcement, any specifics as to the media that may be used, etc.;
- (d) **Base Year Consumption.** The Base Year to be used for measuring curtailment impacts;
- (e) **Procedural Matters.**
 - (1) Development of additional administrative procedures as required;
 - (2) Assessment of the need, if any, for making changes to the Plan to secure increased compliance with the curtailment directives; such changes might include, for example, changes in the Threshold Consumption Level and/or the percentages of consumers subject to audit;
 - (3) Discussion of implementation problems and proposed solutions thereto; and
 - (4) Evaluation of the appropriateness of the materials being made available to utilities and provided by utilities to the States, and a

determination as to whether changes are required (whether that means changes to existing materials or development of new materials);

- (f) **Curtailment Records.** The specific requirements on utilities and States regarding curtailment records (what needs to be recorded, how that information will be stored, who can access it...); Considerations might include consistency, adequacy, accuracy, usefulness, and format of data as well as the methodology used to determine curtailment impacts; States should also determine whether changes need to be made to the reporting requirements to ensure full value from the reports; and
- (g) **Return to Normal Operations.** The general agreement among the States relative to announcing an end to regional load curtailment and resuming normal utility operations.

C. **Return to Normal Operations**

Once the shortage is alleviated, the States and utilities must bring closure to the curtailment process and effect a return to normal operations. The States will detail the process for utilities to follow. The nature of the actions to be taken will be influenced by the applicable stage of curtailment. At a minimum, the following types of activities need to occur:

- (1) **Public Information.** The public must be informed that curtailment is no longer required and thanked for their assistance in alleviating the energy shortage.
- (2) **Administrative Matters.** All curtailment activities will officially cease as of the date that curtailment orders are lifted by the States. The States will provide utilities with guidelines to bring closure to curtailment activities such as: exemptions and appeals, penalty assessments, curtailment incentives (if any), and curtailment reports.
- (3) **Official Actions.** State authorities will take whatever action is required to rescind any State orders for mandatory load curtailment.

SECTION VII. UTILITY LIABILITY AND FINANCIAL RELIEF

A. **Utility Liability for Damages Resulting from Mandatory Load Curtailment Ordered by the States**

State law in each of the four Pacific Northwest States provides for waivers of, or exemptions from, liability in the case of utilities enforcing mandatory load curtailment ordered by the States.

B. Treatment of Proprietary Information

Utilities shall treat individual account data developed pursuant to this Plan as proprietary in accordance with standard utility practice and State law. If State law prohibits utilities from releasing consumer account information to the State, consumers seeking exemptions and/or adjustments shall expressly authorize such exchange for the sole purpose of enabling the State to evaluate the appropriateness of utility determinations regarding the exemption/adjustment requests.

C. Financial Relief for Utilities

Utilities may seek financial relief from the extraordinary costs of curtailment. Such costs might be recovered through established channels including utility rate-case procedures and BPA power sales contract provisions that compensate utilities for revenues lost as a result of State-initiated load curtailments.

SECTION VIII. ANNUAL REVIEW, POST-CURTAILMENT EVALUATION, AND UPDATE OF THE REGIONAL CURTAILMENT PLAN

At least once a year, the Utility Coordinator will convene a meeting of all four State Contacts and interested utilities for the purpose of reviewing and updating this Plan and associated Appendices. Upon completion of the review, necessary changes will be made, a list of substantive changes prepared, and a revised plan issued.

Following a period of State-initiated load curtailment, the Utility Coordinator, State Contacts, and interested utilities will evaluate the success of the Plan in meeting the curtailment goals. The results of the evaluation shall be reflected in a report that will be included in the Implementation Record. Changes may be made to the Plan as a direct result of this post-curtailment evaluation. This post-curtailment evaluation may be combined with the annual review.

To the extent the Plan is reviewed and approved without substantive changes either as a result of the annual review or the post-curtailment evaluation, the Utility Coordinator shall make the identified editorial corrections and issue the updated Plan. If substantive changes are required, the participants in the review process shall agree to a process to make the necessary adjustments. The Plan will then be updated in accordance with the agreed-upon process and the changes included in Appendix G.

SECTION IX. DESCRIPTION OF APPENDICES

A. Regional Electric Energy Curtailment Analysis Model

Appendix A is a description of REECAM, the analytical tool that will be used to evaluate the status of the regional power system and analyze the need for region-wide curtailment.

B. Curtailment Information

Appendix B is a listing of the types of curtailment information that will need to be made available by entities affected by this Plan. The Appendix identifies not only what needs to be done, but who needs to do it, and to whom it needs to be made available.

C. Curtailment Measures

Appendix C is a listing, by sector, of actions to be taken to achieve curtailments of approximately 5%, 10%, and 15%⁺. The listed measures are provided to give ultimate consumers some guidance and ideas as to how to comply with State directives.

D. Utility Curtailment Reports

Appendix D is the standard form (with instructions for completing it) to be used by utilities to report curtailment information to the Utility Coordinator or State Contacts for the purpose of managing the curtailment. Data that is required for general analysis of the curtailment will be included on the form. The data will be available for use by interested parties.

E. Contact Information Regarding the Utility Coordinator, State Contacts, and Utility Contacts

Appendix E identifies the Utility Coordinator, State Contacts, and Utility Contacts. Contact information (addresses and phone numbers) are provided for each. The identified individuals (or their alternates) will be responsible for implementing the Plan on behalf of their respective organizations. Utility Contacts are identified for each regional member of the Northwest Power Pool.

F. State Statute Citations and State Agencies

Appendix F is the legal citation of the State statutes governing load curtailment and a listing of State agencies involved in (1) curtailment planning and implementation and (2) related utility matters.

G. Annual Updates to the Plan

Appendix G is a compendium of the substantive changes made to the Plan over the years.

SECTION X. VOLUME II: RELATED CURTAILMENT INFORMATION

(Note: Information for A-C below will be included once it has been made available.)

A. Individual State Plans and Summary of the Differences among the State Plans

Attachment II.A is a copy of each State plan and a summary of the differences among the State plans and this Plan.

B. Utility Plans

Attachment II.B is a listing, by State, of all electric utilities that have submitted curtailment plans to the appropriate State body. Other relevant information (such as date of the plan, where the plan is filed, how copies can be acquired, etc.) is also provided. Requirements regarding the filing of curtailment plans vary from State to State.

C. State Statutes

Attachment II.C is a copy, by State, of applicable legislation pertaining to State-initiated curtailment.

APPENDIX A

THE REGIONAL ELECTRIC ENERGY CURTAILMENT ANALYSIS MODEL

(REECAM)

OVERVIEW OF THE MODEL

Section I: Introduction

The Regional Electric Energy Curtailment Analysis Model, REECAM, is a tool that decision-makers will use to assess the need for curtailment of electric energy in the four-State region of Washington, Oregon, Idaho, and Montana (the "region"). While electric utilities plan resources to serve expected loads, shortages can still develop. Resources may not perform as anticipated, and loads can grow faster than expected. In spite of good planning and prudent power system operation, regional curtailment may be required to alleviate a power shortage.

Pacific Northwest utilities rely principally on hydroelectric generation, thermal generation, and energy imported from other regions to meet their loads. These generation sources and loads are reflected in REECAM, a model designed to forecast the load/resource balance for the region over the mid-term planning horizon of 6-18 months. Should the model results show a significant energy deficit during the study period, regional decision-makers will need to determine the timing and amount of load curtailment required to bring the power system back into load/resource balance.

Hydroelectric generation, primarily from the Columbia River Power System, provides most of the power used in the Northwest. Since the energy production capability of the hydro system is highly dependent on precipitation, the actual electrical output of this power source can vary significantly from one year to the next. The difference in power availability between a good water year and a bad one is called "non-firm energy" and it can be more than 5,000 average annual megawatts – enough to power a city the size of Seattle for 5 years. (An average annual megawatt is equivalent to 1 MW each hour over a 12 month period [12 MW-months] or 8,760 MWh/year [8,760 being the number of hours in a year].) Since utilities plan to meet their firm loads with firm energy, non-firm energy buffers the system against the energy deficiencies that could result from firm load overruns or lost resources. However, in some years there is virtually no non-firm energy, and load overruns or lost resources in those years could potentially cause the region to experience an energy deficiency of such magnitude as to require implementation of the provisions of the Plan.

Utilities can dampen the impact of both the seasonal and annual swings in hydroelectric power production capability through the use of "storage." By storing water in reservoirs, utilities can "shape" the hydroelectric generation potential so power can be produced when it is most needed. (Hydro natural flows are high in the spring and early summer and low in the fall and winter, while regional loads are greatest in the winter.) However, because hydro storage capacity in the Columbia is limited (it, like the non-firm potential, is approximately 5,000 average annual megawatts), a multi-year drought could stress the power system to the point that Northwest utilities could not count on having stored hydro available to supplement other power sources.

Although hydroelectric generation potential is the most significant and volatile element in the load/resource equation, other components may vary as well. Thermal generation may not perform as expected. In some years, outages of thermal plants dedicated to serving Northwest loads have caused a loss of some 1,000 average annual megawatts relative to expected production levels.

Likewise, a non-regional resource could be lost because of transmission problems or failure of the resource itself. Such loss could reduce imports and impair a utility's ability to meet its loads. Regional import capability is about 14,000 average annual megawatts, but only about 6,000 MW of that is available for "opportunity" purchases. The rest is used for firm contracts or it is otherwise unavailable due to maintenance outages.

Another source of uncertainty with respect to the load/resource balance lies in the load itself. Unexpected load growth could exacerbate a tenuous resource situation. If extremely cold weather were to materialize during a period of unanticipated high load growth, it is conceivable that Northwest loads could be in the order of 1,500-2,000 average annual megawatts greater than forecasted.

In short, significant disturbances in the load/resource equation, irrespective of the cause(s), could potentially lead to conditions that might cause the States to invoke the provisions of the Plan. However, the mere existence of good water conditions (high natural streamflows and/or ample supplies of stored water) would probably offset problems with other generation sources and/or load overruns, making it highly unlikely that the States would need to implement the provisions of the Plan.

Section II: Purpose of the Model

The purpose of REECAM is to provide regional utilities and State governments with an analytic tool to assist them in making decisions concerning regional load curtailment and power system operations during protracted energy shortages.

A number of decisions need to be made at the time that curtailment is contemplated: Is regional curtailment needed? If so, when should the provisions of the Plan be invoked and curtailment requested? How much curtailment should be requested? Should the requested curtailment be voluntary or mandatory?

Once curtailment has been initiated, other questions arise. Is curtailment actually occurring? Is the load/resource picture coming back into balance? If not, what needs to be done to address the problem? Does regional load curtailment need to be continued? When should the curtailment be lifted?

It is vital to remember that while REECAM is an important tool, it is only a tool. Furthermore, it is not designed to give decision-makers precise guidance such as: "Initiate voluntary curtailment of 12.6% for 5 months starting on November 17." Rather, REECAM will generate probabilistic information about the power system. Decision-makers will have to interpret the model's output in light of the power situation as they perceive it and the curtailment guidelines presented in section IV hereof. By analyzing the REECAM inputs as well as the output, decision-makers can determine if a projected shortage could be alleviated by utility actions

such as increasing purchases from non-regional sources or modifying the operating schedule of a regional power plant. If not, curtailment will likely be required. While the model might seem more useful if it generated a thumbs-up/thumbs-down "answer" as to the need for curtailment, the truth is that the right answer cannot be known in advance, and a probabilistic approach gives decision-makers a more comprehensive tool for managing the uncertainties they actually face.

Section III: Description of the Model

A. Overview of the Model

REECAM models the electric load in the region and the generation that is dedicated to serving that load. The physical resources (hydroelectric and thermal resources) that regional utilities rely upon are modelled as are electric energy transfers from outside the region, including both firm and "opportunity" transfers from British Columbia, the Southwest, and the East.

REECAM is a broad-brush model that employs a probabilistic approach to forecasting the regional load/resource balance. Some of the inputs are "fixed," but most are variable. For each variable input, there is an expected value and a "distribution" associated with that value. The model adds the fixed inputs to the randomly selected values of the variable inputs and calculates the resulting load/resource balance. This process is repeated a number of times, generating a series of "games" or alternative load/resource scenarios. The model provides decision-makers with an overview of the types of system conditions they might expect over the next 6-18 months. From these probabilistic scenarios regarding load/resource conditions, regional decision-makers can make informed choices about the need for regional load curtailment.

REECAM models the region's ability to meet electric energy loads under a stressed condition, that is, when the region's resources may not be sufficient to serve all of the region's loads in the near term. Because it models a stressed condition, the following simplifying assumptions are made:

- (i) Regional thermal resources, including high cost resources, are operating to the extent they are not, or have not been, forced out of service;
- (ii) Regional import capability is fully utilized to the extent that the interties are available and energy from other regions is available;
- (iii) Storage reservoirs in the "Coordinated System" are being drafted to meet load to the extent permitted by the Pacific Northwest Coordination Agreement (PNCA); and
- (iv) Resources and loads are modelled as if the region were served by a single utility. (Because REECAM is a regional model, inter-utility transfers are not explicitly modelled.)
- (v) Regional non-firm loads are already off-line to the extent permitted by contract.

B. Description of Inputs to the Model

There are seven basic inputs to REECAM: regional firm loads, non-regional firm sales, hydro natural flows, hydro storage, thermal generation, energy imports, and miscellaneous resources. Two of the inputs, non-regional firm sales and miscellaneous resources, are input as "fixed" values. Hydro storage is input at its current value as of the time the study is run; subsequent values for hydro storage throughout the study period are calculated as "residuals" with respect to the other model inputs. The four remaining inputs – regional firm loads, hydro natural flows, thermal generation and energy imports – are distributions that are incorporated in REECAM. The distributions for these "variable" inputs reflect normal forecasting uncertainties. REECAM selects values for each of the four "variable" inputs from these distributions for each study period.

It is quite possible that one or more of the inputs will be affected by non-random factors that are known at the time the study is run but cannot be predicted in advance and built into the model since they do not generally apply. For example, a power plant or transmission line may be out of service for an extended period due to an earlier forced outage. It is vital that such events be expressly reflected in the modelling process, as they will have a significant bearing on the need for curtailment. Within the model they are handled through the use of "adjustment" factors which, in essence, override the normal algorithm applicable to the affected input(s).

The seven basic inputs are discussed below in more detail.

(1) Regional Firm Load

Two different load forecasts comprise the "regional firm load" component of the model. The first is BPA's forecast of firm regional utility and Federal Agency (FA) load. (All Federal Agencies are included in this forecast including the loads of agencies served under metered requirements power sales contracts and the USBR reserved power loads.) Federal transmission system losses are also included in the utility/FA forecast. The second forecast is the firm portion of BPA's direct-service industrial customers' load.

In making the utility/FA forecast for REECAM, BPA begins with a forecast of firm utility and FA loads in the region as defined in the NW Power Act, slightly modified so as to include all of Montana Power Company's (MPC) total system loads (i.e., adding the loads east of the Continental Divide) [Modified Forecast]. This Modified Forecast is then adjusted to arrive at a forecast for the four-State area which comprises the "region" as defined in this Plan. There are two adjustments: MPC's load is increased to reflect its total control area loads (not just its total system loads), and BPA's firm utility loads in non-regional States (California, Nevada, Utah, and Wyoming) are removed from the Modified Forecast and included in the "non-regional firm sales" input. To the extent that PacifiCorp's loads fall within the four-State area comprising the "region" as defined in the Plan, they are included in the regional firm load input. Hence PacifiCorp's loads in the State of Idaho are included in the forecast of regional firm load, while its California loads are reflected in the "non-regional firm sales"

input. (These loads must be modelled because they are served with "regional" resources.)

The industrial load is separated from the utility/FA load for forecasting purposes because it is influenced by different factors. The utility/FA load is primarily affected by weather and regional economic conditions, whereas the industrial load is also highly sensitive to product prices. Both loads are significant in size (the utility/FA load being 17,000 average annual megawatts and the industrial load being 3,000 average annual megawatts).

BPA forecasts regional firm utility/FA loads using an econometric model that produces a "medium" case forecast. The forecast is short-term in nature and is initialized at "actual" values at the time the study is run, based on BPA and NWPP data. The studies used to generate the forecast take into account current load trends and near-term economics. General projections of near-term weather trends (up to 2 weeks) may be included through application of adjustment factors, although weather projections beyond a 7 day period are highly tenuous.

BPA uses Monte Carlo simulation to model the uncertainties associated with weather and regional economic conditions over the study horizon. The resulting probability distribution around the medium case forecast is used as a basis for selecting five alternative regional utility/FA load forecasts (low, medium-low, medium, medium-high, and high). Each of those five forecasts has an associated probability of occurrence. The forecasts and identified probabilities are input to REECAM, and the probabilities are taken into account by REECAM when a load within the forecast range is randomly selected as "the load" for a particular "game."

BPA uses a different approach to forecasting the industrial loads. Load forecasts for the region's aluminum producers are based on an analysis of aluminum prices and production costs and consideration of a number of factors that are not price-related. Other industrial loads served by BPA are forecasted on a plant-by-plant basis, taking into account economic and technical trends applicable to their respective industries. Industrial loads are initialized at current operating levels. To generate the alternative industrial load forecasts, BPA changes the underlying assumptions, making them more pessimistic in the "low" and "medium-low" cases and more optimistic in the "medium-high" and "high" load scenarios. Probabilities are assigned to each of the five load forecasts.

The actual industrial load inputs to REECAM are not the five industrial load forecasts per se, but rather the five forecasts adjusted to reflect the amount of load that BPA projects it will be serving during the shortage period.

(2) Non-Regional Firm Sales

REECAM also includes an input for non-regional firm sales. This input is comprised of three basic components: (1) sales to extra-regional entities as that term is defined in section 3.(14) of P.L. 95-501 (the NW Power Act); (2) wholesale sales to BPA's non-regional firm loads (including sales to all, or a

portion of, the loads of the following utilities: Surprise Valley Electric Coop in California, Harney Electric Coop in Nevada, Wells Rural Electric Coop in Nevada, Raft River Electric Coop in Nevada and Utah, and Lower Valley Power & Light in Wyoming); and (3) retail sales to PacifiCorp's California loads served with resources dedicated to serving Northwest loads. These three loads are identified on a spreadsheet, and the spreadsheet totals are input to REECAM. No forecasting uncertainty is assumed with respect to any of these Non-Regional Firm Sales; hence this input is treated as fixed (although the values will vary by forecast period).

(3) Hydro Natural Flow

The ability of the hydroelectric power system to generate energy is determined by two factors: hydro natural flows and hydro storage. The convention among power planners is to use forecasted streamflow at The Dalles as a benchmark for natural streamflow in the entire Columbia River Power System. The streamflow, which is measured in thousands of cubic feet per second (kcfs), is converted to an estimated power production figure (average megawatts) using a formula specified in REECAM. This formula accounts for all hydro projects in the "Coordinated System." (The Coordinated System includes all hydroelectric projects in the region except for those belonging to Idaho Power Company and those that Montana Power Company excludes from PNCA planning because they are located outside the "region," as that term is used by PNCA parties.)

Hydro natural flows comprise one of the five "resource" elements in REECAM's load/resource equation. The manner in which the streamflow is forecast for REECAM depends upon when the forecast is made.

The period January through July is often referred to as the "refill" period. REECAM forecasts prepared in the period January through July for the immediate refill period will be based on the latest forecast of the January-July volume runoff at The Dalles. The volume forecast is normally expressed in million-acre-feet, or MAF. The forecast for The Dalles is really a composite of volume forecasts for each river basin comprising the Columbia River Power System. Uncertainty as to actual streamflow conditions will be modelled by applying the Standard Error of Estimate for each forecast period (typically one month). The forecast volume will be shaped among periods according to the normal streamflow distribution unless better information is available at the time the forecast is made. Natural streamflows, measured in kcfs, are calculated from the volume forecast for the period by multiplying the forecast by a conversion factor of 504.167 and dividing by the number of days in the forecast period.

The period August through December is generally known as the "drawdown" period. Utilities can reasonably forecast streamflows for two months into the future. Beyond that, forecasting uncertainty becomes too great to assume anything but "normal" streamflows. As with other input data, the "best available" information is used to derive the streamflow forecast. Hence, REECAM's streamflow forecasts (other than those made during the refill period for the same

refill period) use estimated data in the near term and "normal" streamflow data for the remainder of the forecast period. Streamflow uncertainty will be modelled through the use of statistical factors derived from the streamflow statistics generated by the latest historical record, currently the 50 years between 1928-29 and 1977-78.

A "smoothing" routine is built into the program to even out the dramatic streamflow fluctuations that would likely occur if purely random statistical data were used to model streamflow values.

(4) Hydro Storage

Hydro storage plays an important role in the regional power system. During periods of high natural flows, when the water coming unencumbered down the river could generate more energy than is needed at the moment, the excess water can be stored in reservoirs and held for future use.

To understand the hydro storage component of REECAM, it is important to recognize that utilities must cooperate with each other to optimize the output of the hydro system. Much of the generating capability of the hydro system would be lost if utilities operated their hydro projects independently. Water would be spilled unnecessarily at downstream projects due to the actions of upstream parties, and power might not be available when needed. The PNCA is the contract that governs operation of the hydro system and releases from hydro storage.

Under the PNCA, the parties calculate the region's annual firm energy load carrying capability (FELCC). FELCC represents the maximum amount of power that the Coordinated System can produce under critical water conditions. Since this amount of power can be achieved only if the parties coordinate their operations to optimize total system output, the hydro system is managed so as to "develop" the annual FELCC.

The region's FELCC is allocated to PNCA parties according to the amount of FELCC that is generated by their respective resources. The annual FELCC is shaped by period to match the expected load shape over the year. The load shape for each period essentially becomes the "target" for system operations, and the reservoirs are operated in such a way as to produce the period's FELCC. Utilities use their FELCC to meet their loads.

If actual loads are higher than the period's FELCC (including both the hydro FELCC and thermal FELCC), utilities must acquire energy from other sources to meet the excess load; if loads are lower, utilities can market unneeded FELCC or generate less than FELCC and store the unused water. Water is "drafted" or released from storage and used to generate energy whenever the hydro component of the period's FELCC exceeds the amount of power that can be generated from hydro natural flow. Likewise, when the natural flow component provides surplus relative to sales, storage will be filled. (Generating more firm power than the designated FELCC in order to meet actual loads could result in a

net loss of future power production capability; hence, the system is operated to produce the period's FELCC.)

Storage in REECAM is modelled as one dam with the full storage capability of all the region's storage reservoirs available under the PNCA. The model takes into account normal operating constraints such as the physical limits of full and empty. The model also considers other factors that affect access to stored water, including flood control requirements, fish operations, and non-firm energy sales.

Within REECAM, generation from hydro storage is determined by subtracting generation from hydro natural flows from FELCC. If the resulting hydro storage value is greater than permitted by the physical limits and operating constraints of the system, then any excess water is spilled. If the resulting hydro storage value is so low that it would result in the system being drafted below permissible levels, the hydro storage input will reflect that fact and the difference between the calculated hydro storage value and the lowest permissible value is registered as the regional load/resource deficit for that particular period.

(5) Thermal Generation

The thermal resource component of REECAM is derived from a separate model, one that analyzes the power production capability of each thermal resource dedicated to serving regional load. Like REECAM, this model is probabilistic in nature. The output of this thermal model is a forecast of regional thermal power production capability. By running a number of games, it is possible to develop a spectrum of alternative scenarios regarding thermal plant performance. These thermal model output data are input to REECAM.

The thermal model forecasts regional thermal power production capability, taking into account three factors: the generating capability of each plant, the forced outage rate for each plant, and planned maintenance outages.

"Generating capability" is simply the energy capability of a plant as reported by the utility that is responsible for its operation. The generating capability figure represents the maximum amount of energy a resource could produce on an ongoing basis (the "maximum continuous rating" for the plant), assuming no forced outages and no down-time for normal maintenance.

Utilities use the term "forced outage" to describe the unexpected loss of a resource. Each plant analyzed in the model is assigned a forced outage rate based on the best available data for that plant or plant type. Many utilities develop plant-specific forced outage rates based on the plant's operating history. In the case of plants for which there is no plant-specific data, a forced outage rate that is "typical" of similar facilities is used. These "typical" values are taken from statistics published by NERC, the North American Electric Reliability Council. (See NERC's Generating Availability Data System.)

The thermal model also takes planned maintenance outages into account by reducing plant output to reflect down-time during routine maintenance periods.

(6) **Imports**

Energy imported into the region is an important resource consideration in the REECAM analysis for two reasons: (1) some utilities rely on imports, at least in part, to meet their native load, and (2) "opportunity" imports to the region are a major factor in the system's ability to survive an adverse operating situation.

There are interregional interties to the East into Montana and Wyoming, to the North into Canada, and to the South into California and the "Inland Southwest" (Arizona, Nevada, and New Mexico). These interties can bring large quantities of energy into the region should the need arise. The undiminished regional import capability is approximately 14,000 average annual megawatts, but approximately two thirds of that capability is already in use, being devoted to firm contracts. These firm contracts for energy imports are identified on a spreadsheet; the total of all such contracts are input to REECAM as one element of the "import" component of the model.

What import capacity remains may be used for opportunity transfers, which is the other element of the "import" component of the model. Opportunity transfers are limited by two factors: (1) transmission availability and (2) energy availability.

Transmission availability is treated as an input to REECAM. Availability is determined by ascertaining each line's current operating capability (based on recent historical use) and subtracting both capacity reserved for delivery of power under existing firm contracts and unusable capacity due to down-time for maintenance or forced outages. Forced outages are factored into REECAM based on a probability distribution derived from historical forced outage rates.

Energy availability is also an input to REECAM. At the time that REECAM is run, non-regional energy availability will be estimated from information provided to the modellers by the region's utilities.

(7) **Miscellaneous Resources**

The "miscellaneous resource" input captures the effects of a variety of resource variations that are not otherwise reflected in the model. Among the factors included in the miscellaneous resource input are: non-treaty storage, Flexibility and Provisional drafts as provided in the PNCA, and resources that are not otherwise modelled (such as Idaho Power Company's hydro resources, Montana Power Company's hydro resources that are not included in PNCA planning, and any other resources that are not otherwise modelled, but are in fact used to serve regional loads.) Also included in the miscellaneous resource category is an amount equal to PacifiCorp's load in Idaho served by the Utah division. The power to serve this load comes from non-regional sources. By including a resource in the amount of the load, the model effectively "nets out"

the regional load that is served with non-regional resources. The individual components of the miscellaneous resource input are identified on a spreadsheet, and the spreadsheet totals are input to REECAM. This input is treated as "fixed;" no uncertainties with respect to miscellaneous resources are modelled.

C. Description of Model Outputs

Each REECAM game generates an output in the form of a regional energy surplus or regional deficit for each month or alternative study period over the study horizon. This output is calculated by subtracting load (the sum of the two load inputs) from resources (the sum of all five resource components). To ensure REECAM's outputs are a statistically valid representation of their range of uncertainty, each run is comprised of at least 100 games. Each REECAM run is designed to give energy planners and regional decision-makers an accurate picture of the load/resource situation they are facing.

The output for each REECAM game is based on a selection of input data for the seven REECAM inputs: regional firm loads, non-regional firm sales, hydro natural flow, hydro storage, thermal generation, import capability, and miscellaneous resources. The two fixed components of the model, non-regional firm sales and miscellaneous resources, are input at their established values, and the same values are used in all games. The hydro storage generation component is calculated by subtracting hydro natural flows from the amount of the regional FELCC for each study period. The input data for the variable components of the model are randomly selected from probability distributions designed to ensure that proper weight is given to the more likely scenarios.

A complete REECAM study includes the numerical output from individual games as well as a histogram summarizing that data. The REECAM output histogram shows "probability of occurrence" on the vertical axis and size of the resource deficit or surplus on the horizontal axis. The probabilities shown on the graph will always sum to 100%. For a sample REECAM output, see Figure 1.

REECAM can also generate frequency histograms from the input data. The input histograms are useful in that they provide power analysts and regional decision-makers with an understanding of the causes of anticipated deficits. These histograms summarize the information contained in the input files. The vertical axis of the chart reflects the probability of a certain load or resource performance. The horizontal axis on an "input" histogram shows the size of the load or the amount of generation produced by the resource. As with the output histograms, the probabilities reflected on the vertical axis sum to 100%. Figure 2 provides a sample histogram for one REECAM input, thermal generation.

D. Study Period / Study Horizon

REECAM will normally be used to generate monthly forecasts of the regional load/resource balance. The model is flexible, however, and can generate data for periods of any length (daily, weekly, monthly, bi-monthly...).

Normally the study horizon will not exceed 18 months. Although it is possible that planners might want to examine REECAM results for a longer period, the model is most accurate in the near-term. Load/resource balance uncertainty increases dramatically over time, and the study results become correspondingly less and less meaningful.

Section IV: Use of the REECAM Output

As mentioned earlier, REECAM is a tool. Its purpose is to provide power analysts and regional decision-makers with information that will help them to make appropriate decisions regarding the need for near-term regional curtailment to maintain power system reliability at acceptable levels.

A. Operational Uses of REECAM

Utilities may find it prudent to adjust their system operations in light of the results of REECAM. Utilities have a great deal of control over the amount of power that is imported to the region as well as the timing of those imports. The import factor could have a significant influence over the need for future curtailments. REECAM will provide utilities with a good understanding of the risks and benefits of various import alternatives.

The REECAM results may also be used by utilities in making operating decisions about their thermal plants. REECAM may help operators decide when to begin to run their discretionary, usually high cost, thermal plants. Utilities may also choose to adjust their maintenance schedules based on the REECAM results.

B. Curtailment Decisions

From the input and output histograms, it is possible to get a picture of what "might be" with respect to the load/resource balance over the next year or so. If the picture appears overly worrisome, especially in light of other factors being considered by the decision-makers, either load curtailment or some sort of change in resource operation would be indicated.

There is no "absolute" with respect to interpretation of the model's results. However, power analysts will propose guidelines for regional decision-makers to consider when reviewing REECAM results. The REECAM output will assist decision-makers in answering the following types of questions:

1. Need for Curtailment

- a. Should regional load curtailment be imposed if there is more than a __% probability that a regional deficit of at least __ megawatts will materialize and last for more than __ months?
- b. Should regional load curtailment be imposed if there is more than a __% probability that a regional deficit of at least __ megawatts will materialize next month and if the megawatt import capability for that month is less than the amount of the deficit?

2. Selection of Curtailment Levels

Before the appropriate curtailment level can be determined, the load/resource deficit as determined from REECAM must be expressed relative to the weather-normalized Base Year load. This is an important step because consumers will be asked to curtail relative to their use in the Base Year, rather than relative to their present consumption. If consumers have changed their energy consumption habits over the last year, failure to make this adjustment could result in a call for the wrong amount of curtailment.

There are other factors as well that will affect the percentage curtailment required in order to bring the system back into load/resource balance.

One such factor is load growth. Consumers that have moved into the region over the last year will also be curtailing their loads, and their presence is not reflected in the Base Year data. This factor should have the effect of reducing the percentage curtailment required from regional consumers.

A factor that will drive the required curtailment percentage upwards is the fact that Non-Regional firm sales are not subject to curtailment. Hence, regional consumers must provide an additional increment of savings to cover utility responsibilities with respect to serving those other loads.

A final factor that will affect the load/resource balance is one that cannot be forecasted; that is, weather conditions. REECAM is based on an assumption of "average" weather, and the amount of required curtailment required will be less if the weather is mild, and more if the weather is extreme.

Regional decision-makers will need to take all these variables into account when deciding the appropriate level of load curtailment to request from Pacific Northwest consumers.

FIGURE 1

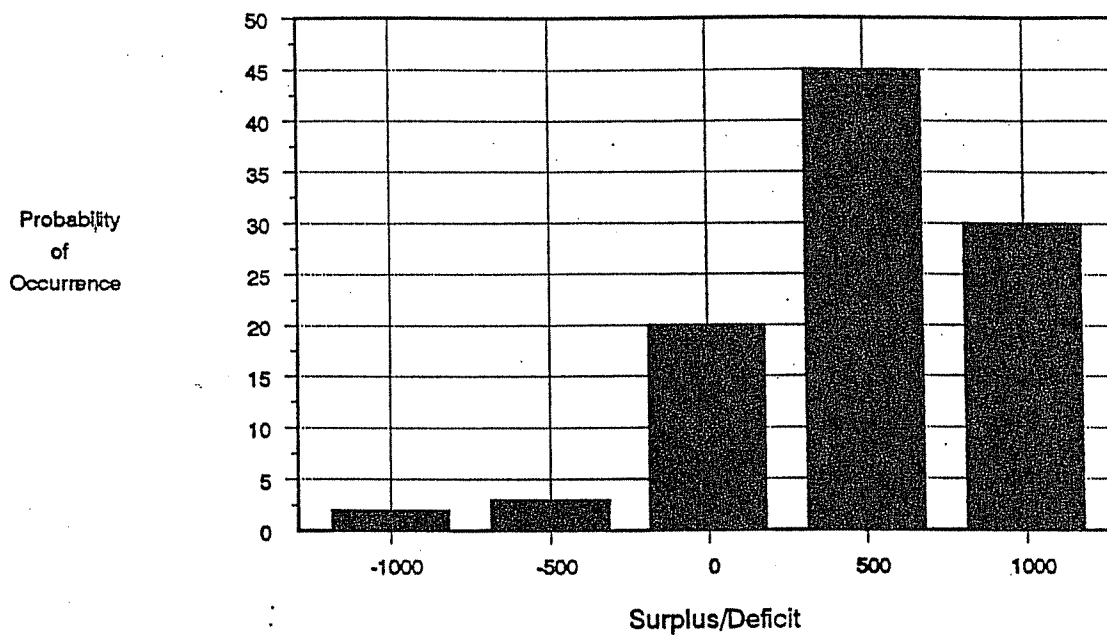
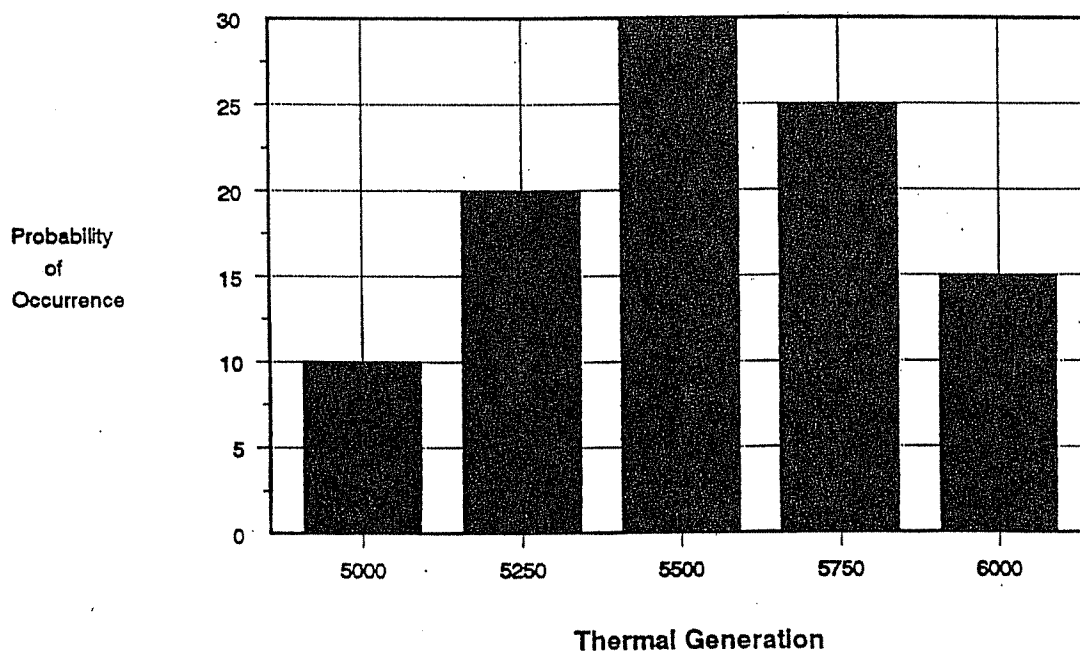


FIGURE 2



APPENDIX B**TYPES OF CURTAILMENT INFORMATION**

This Appendix describes the types of activities that will need to take place during load curtailment and the parties most likely to be responsible for them. Final decisions about roles and responsibilities will be made at the time that curtailment is actually imposed.

A. Public Information Process

Statewide public information strategies generally should be coordinated by the States. Utility-specific public information should be consistent with, but not limited to, the public information provided by the States.

Each State should:

1. Convene a working group of State, utility, and media representatives to develop public information strategies.
2. Convene a working group of State and local government representatives to develop instructions for addressing hardship and grievance cases. Such instructions are for public dissemination.
3. Convene a working group of State and utility representatives to calculate curtailment impacts. Impacts assessments are needed for both decision-makers and the public.

B. Types of Announcements and/or Reports

1. General announcements of curtailments;
2. Periodic regional and utility-specific situation reports (system conditions);
3. Periodic implementation reports (curtailment results and impacts);
4. Background reports and responses to media requests;
5. Emergency, hardship, and/or grievance instructions;
6. Exemption and adjustment instructions; and
7. Electricity consumption reduction handouts.

C. Responsibilities for Developing and Disseminating Curtailment Information

Responsibilities for developing and disseminating this information to appropriate parties are as follows:

1. **General Announcements of Curtailment**

a. **State Role:**

- (1) Formally notify utilities of initial and subsequent curtailment stages and levels.
- (2) Notify media of curtailment conditions.
- (3) Make public announcements of curtailment conditions.
- (4) Prepare material to provide to utilities as bill stuffers explaining the purpose of mandatory curtailment, describing how curtailment will be enforced, and outlining the penalty provisions of the Plan.

b. **Utility Role:**

- (1) Notify media of utility implementation of curtailment orders.
- (2) Notify consumers of curtailment conditions.
- (3) Provide consumers with State-prepared materials regarding enforcement of mandatory curtailment.

2. **Periodic Regional and Utility Specific Situation Reports (routinely provided to the Northwest Power Planning Council)**

a. **Utility Coordinator Role:**

Collect, aggregate, and provide States and utilities with information about specific utilities and regional electric system conditions.

b. **State Role:**

- (1) Notify media of regional and Statewide electric system conditions.
- (2) Notify critical users and energy producers of regional and Statewide electric system conditions.

c. **Utility Role:**

- (1) Provide Utility Coordinator with information about utility-specific electric system conditions.
- (2) Notify customers and media of utility-specific electric system conditions.

3. **Utility Curtailment Report**

a. **Utility Coordinator Role:**

Collect, aggregate, and provide States and utilities with data regarding curtailment impacts and the progress that has been made. Curtailment data must be available by utility and for the region as a whole.

b. **State Role:**

- (1) Calculate Statewide impacts (energy impacts, economic impacts, etc.).
- (2) Provide other States with Statewide impact assessments.
- (3) Notify media of regional and Statewide curtailment progress and regional and Statewide impacts.

c. **Utility Role:**

- (1) Provide the Utility Coordinator with utility-specific curtailment progress (use Utility Curtailment Report Form).
- (2) Notify consumers and the media of utility-specific curtailment progress and local impacts.

4. **Background Reports and Responses to Media Requests**

a. **Utility Coordinator Role:**

- (1) Prepare and provide States and the media with technical background information as requested.
- (2) Provide copies of the Regional Plan to all requesters.
- (3) Respond to media requests for information on regional issues.

b. **State Role:**

- (1) Prepare and provide technical and policy background information to the media and public as deemed necessary or requested.
- (2) Provide State and Regional Plan to all requesters.
- (3) Respond to media requests for information on regional and Statewide issues.

c. **Utility Role:**

- (1) Provide technical and policy background information to the media and public as requested or direct inquiries to State.
- (2) Respond to media requests for information on utility-specific issues.

5. **Emergency, Hardship, or Grievance Instructions**

a. **State Role:**

- (1) Determine specific processes for handling emergency health and safety concerns, hardship and grievance cases.
- (2) Determine the best strategy for disseminating such instructions.
- (3) Provide utilities and the media with process information.
- (4) Provide process information to the public through hotlines.

b. **Utility Role:**

- (1) Provide all consumers with specific information about processes for handling emergency health and safety concerns, hardship, and grievance cases.
- (2) Provide such information to the media as requested.

6. **Exemption and Adjustment Instructions**

a. **State Role:**

- (1) Prepare and provide utilities with guidelines for determining the appropriateness of granting exemption and adjustment requests.
- (2) Provide the media with generic exemption and adjustment information.
- (3) Provide the public with access to exemption and adjustment information (through the use of publications, hotlines, etc.).

b. **Utility Role:**

Notify consumers, as necessary, of the exemption and adjustment process.

7. **Electricity Consumption Reduction Handouts**

a. **State Role:**

- (1) Determine appropriate consumption reduction measures with utility input.
- (2) Print handouts with assistance of utilities.
- (3) Provide the media with handouts.
- (4) Provide access to handouts through hotlines.

b. **Utility Role:**

- (1) Assist their respective States in determining appropriate consumption reduction measures.
- (2) Print handouts with the assistance of the State.
- (3) Provide the media with handouts as requested.
- (4) Provide all consumers with appropriate handouts.

APPENDIX C

CURTAILMENT MEASURES

Curtailment measures will be dependent upon many factors, including geographic sub-areas of the Pacific Northwest (some have heavy air conditioning loads or irrigation loads, while others do not); the time of year (residential space heating and lighting are seasonal, as are air conditioning loads); industrial versus non-industrial areas; and so on.

These curtailment "packages" are intended to be illustrative only, and not prescriptive. Many combinations of measures could be utilized to accomplish the curtailment goals. Each State, within its own administrative and consumptive structure, will need to determine the most appropriate mix consistent with time of year, local economies, public health considerations, and other factors deemed essential to the curtailment process.

Each plan should also be sensitive to the possibility that through conservation and other efforts, some electric consumers may already be at a minimal level.

To Achieve Approximately a 5% Curtailment:**Residential:**

- Reduce space heat to 65 degrees F;
- Utilize night set-backs (10 degrees recommended);
- Increase air conditioning to 80 degrees F if in cooling season;
- Reduce lighting 20%, either by turning off 1/5 of lights regularly on or reducing total light wattage by 1/5 (replace all 75-Watt with 60-Watt, for example).

Commercial:

- Reduce space heat to 65 degrees F;
- Utilize temperature set-backs during times the business is closed;
- Increase air conditioning to 80 degrees F if in cooling season;
- Reduce lighting 20%, either by turning off every 5th light regularly on or reducing total light wattage by 1/5.

Industrial:

- DSI's and non-DSI's cut 5% of load as decided internally - processes, shift scheduling, lower power settings on machinery, etc.

Irrigation:

- If during irrigation season, shut off pumps 1 hour of pumping time each day (if pumping 24 hours a day), or trade-in for 5% lower wattage pumps.

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To Achieve Approximately a 10% Curtailment:

Residential:

- All steps of the previous level;
- Increase air conditioning to 85 degrees F if in cooling season;
- Additional 5% lighting reduction (total 25% - replace 60-Watt with 45-Watt);
- Set water heaters at 130 degrees F (if higher);
- Reduce all other electricity use 5% (with some of the following measures):
- shut down hot tubs, home spas, swimming pool heaters,
- restrict clothes dryer use,
- turn up refrigerator temperature to 38-40 degrees F,
- limit use of automatic timers and clocks,
- reduce water bed heater temperatures,
- reduce electric blanket settings,
- cook with microwave versus electric resistance ovens.

Commercial:

- All steps of the previous level;
- Increase air conditioning to 85 degrees F if in cooling season;
- Additional 5% lighting reduction (total 25% reduction, every 4th light off);
- Eliminate advertising, reduce parking lot lights (not necessarily security lights);
- Set water heaters at 130 degrees F (if higher);
- Reduce all other electricity use 5%, depending on type of commercial establishment:
- eliminate clothes dryer use,
- turn up refrigerator/freezer temperatures,
- limit use of automatic timers and clocks, etc.

Government/Utility:

- Turn off 1/3 outdoor street lights and parking lot lighting;
- Reduce 10% of own building/facility electricity consumption however determined by facility management.

Industrial:

- DSI's and non-DSI's cut 10% of load as decided internally - processes, work shifts, machinery, etc.

Irrigation:

- If during irrigation season, shut off pumps 2-1/2 hours of pumping time each day (if pumping 24 hours), or trade-in for 10% lower wattage pumps.

To Achieve Approximately a 15+% Curtailment:

Residential:

- All steps of previous level;
- Reduce space heat to 62 degrees F if all household members healthy;
- Additional 5% lighting reduction (total 30%: 1/3 of all lights removed, and no wattage greater than 40-W); all outside lighting off;
- Turn down water heater to 120 degrees F (if higher);
- Reduce all other electricity use additional 15% (for a total of 15%):
 - eliminate clothes dryer use,
 - turn up refrigerator temperature,
 - limit use of automatic timers and clocks,
 - turn off spas, hot tubs, swimming pool heaters, clocks, etc.

Commercial:

- All steps of previous level;
- Additional 5% lighting reduction (total 30%: 1/3 of all lights removed, all security lighting off);
- Eliminate advertising, parking lot lights;
- Turn down water heater to 120 degrees F (if higher);
- Reduce all other electricity use additional 15% (for a total reduction of 15%) - reduce pump and compressor use, raise freezer temperatures, limit use of automatic timers and clocks, etc.

Government/Utility:

- Turn off all outdoor street and parking lot lighting;
- All non-DSI Federal loads cut 15% (military, Bureau of Reclamation, BIA);
- Reduce building/facility electricity consumption a total of 15%.

Industrial:

- DSI's and non-DSI's cut 15% of load as decided internally - processes, work shifts, machinery power, etc.

Irrigation:

- If during irrigation season, shut off pumps 5 hours of pumping time each day (if pumping 24 hours each day), or trade-in for 15% lower wattage pumps.

APPENDIX C REFERENCES:

BPA, Pacific Northwest Loads & Resources Study. Portland, OR; BPA, annually.

BPA & Northwest Power Planning Council, Economic Forecasts for the Pacific Northwest. Portland, OR; BPA & NWPPC, 1988.

APPENDIX D

UTILITY CURTAILMENT REPORTUtility Obligation to Provide Curtailment Data

At all times during State-initiated regional load curtailment, utilities shall be prepared to provide their respective States and the Utility Coordinator with consumption and savings data on a monthly basis in the form specified below. Prior to the initiation of load curtailment, the States shall determine due dates for these monthly reports and so inform the utilities within their respective jurisdictions.

Value of a Single Standardized Report

By adopting a common curtailment savings reporting form for use by utilities in all four States, the States are ensuring that:

- (a) **Utilities Are Prepared for Curtailment.** All utilities in the region should be prepared at any time to provide the data that the States need to evaluate the effectiveness of the load curtailment directive. (By specifying the filing requirements in this Plan, the States are giving utilities time to develop the necessary administrative tools to enable them to generate the required data from the beginning of State-initiated load curtailment, irrespective of when that curtailment may occur.)
- (b) **Curtailment Data is Consistent Among Utilities.** The data themselves will be more consistent among utilities since the form will prescribe a specific manner of reporting that may differ from how the utility would otherwise choose to report. Use of the standardized form will give regional planners a more certain grasp of the impacts that requested load curtailment is having on the regional energy situation; without it, reported impacts in one State or in one utility's service area might appear substantially different from the impacts in another, irrespective of the reality of the situation; and
- (c) **Curtailment Administration is Facilitated.** Those individuals that need to work with the data (State personnel, utility personnel, and the Utility Coordinator) will be able to do so with a minimum of difficulty since it is easier to work with data presented in a common format than with data presented in a variety of formats.
- (d) **A Common Data Base of Curtailment Information is Established.** By having all Pacific Northwest utilities submit curtailment information on the same form and by giving all parties that need curtailment information a voice in development of that form, a single data base with all relevant curtailment information can be established. Having a single comprehensive source of curtailment data will minimize the amount of data collection that will be required. Multi-State utilities will need to fill out the form for each State in which they serve, but the data collection and reporting process will be simplified by virtue of using

the same form for each State. Data from this report can be used for a variety of purposes. For example, this data base can be used by the Utility Coordinator to assess the success of curtailment efforts to date, it can be accessed by States preparing reports to their respective State agencies and governors, and it can be used by BPA to determine lost revenue payments to utilities under their power sales contracts.

The information requested on the Utility Curtailment Report is both necessary and sufficient for curtailment administration as jointly determined by representatives of the States, Pacific Northwest utilities (including BPA), and the NWPP. To the extent a need for additional information arises (or certain information turns out to be unnecessary), the standardized Utility Curtailment Report will be modified.

**REGIONAL UTILITY CURTAILMENT REPORT FORM
PART I: ORIGINAL FILING INFORMATION**

NAME OF UTILITY		REPORT DATE	
------------------------	--	--------------------	--

PRIMARY AND ALTERNATE CONTACT PERSON

NAME		TITLE	
ADDRESS		PHONE	
		FAX	
		PAGER	

NAME		TITLE	
ADDRESS		PHONE	
		FAX	
		PAGER	

LOCATION OF SERVICE AREA (Check one)

WASHINGTON		OREGON		IDAHO		MONTANA	
-------------------	--	---------------	--	--------------	--	----------------	--

TOTAL NUMBER OF CONSUMERS IN SERVICE AREA

BILLING CYCLE	RESIDENTIAL	GENERAL USE	MAJOR USE > 5 MWA
Monthly			
Bi-monthly			
Seasonal			

QUESTIONS (attach additional explanation pages if needed)	YES	NO
Are consumers with estimated base period data included in all audit samples?		
Does your utility weather adjust all consumer data reported on this form?		
AUTHORIZED UTILITY EXEMPTIONS FROM THE STATE PLAN:	(X)	
Not required to weather adjust data		
Other (Specify on explanation pages):		
Describe any circumstances that may have prevented your utility from fully complying with the State Plan (exclude exemptions above; attach explanation pages if needed)		

**REGIONAL UTILITY CURTAILMENT REPORT FORM
PART II: MONTHLY INFORMATION**

NAME OF UTILITY			REPORTING PERIOD:
DATE OF REPORT		BEGINNING	
PERSON FILING		ENDING	

SPECIFIED CURTAILMENT PERCENTAGE LEVELS

STAGE (1-5)		RESIDENTIAL		GENERAL USE		MAJOR USE	
--------------------	--	--------------------	--	--------------------	--	------------------	--

LOADS DURING REPORTING PERIOD (in MWhs)

WEATHER NORMALIZATION	TOTAL SYSTEM LOAD	LOAD FORECAST (BEFORE CURTAIL)	BASE PERIOD LOAD
ACTUAL			
WEATHER ADJUSTED			

WEATHER ADJUSTED CONSUMPTION LEVELS (in MWhs)

CONSUMPTION	RESIDENTIAL	GENERAL USE	MAJOR USE
BASE PERIOD			
REPORTING PERIOD			

COMPLIANCE

	RESIDENTIAL	GENERAL USE	MAJOR USE
# OF CONSUMERS IN SAMPLE			
# W/ESTIMATED BASE DATA			
# MEETING OR BELOW TARGET			
# >TARGET BUT <THRESHOLD			
# >THRESHOLD			

NUMBER OF CONSUMERS WITH PENALTIES ASSESSED

PENALTY LEVEL	RESIDENTIAL	GENERAL USE	MAJOR USE
\$.10/KWH			
\$.20/KWH			
\$.40/KWH			
1 DAY DISCONNECT			
2 DAY DISCONNECT			

**REGIONAL UTILITY CURTAILMENT REPORT FORM
PART II: MONTHLY INFORMATION**

EXEMPTIONS/ADJUSTMENTS

# This Reporting Period	RESIDENTIAL	GENERAL USE	MAJOR USE
Exemptions Applied For			
Exemptions Granted by Utility			
Exemptions Denied by Utility			
Exemptions Pending Review by Utility			
Adjustments Applied For			
Adjustments Granted by Utility			
Adjustments Denied by Utility			
Adjustments Pending Review by Utility			
Exemptions Granted by State			
Adjustments Granted by State			

Estimated Load (in MWh) during previous reporting period represented by:	RESIDENTIAL	GENERAL USE	MAJOR USE
Exemptions Granted by Utility			
Exemptions Granted by State			
Adjustments Granted by Utility			
Adjustments Granted by State			

Dollar Amount of Penalty Surcharges Assessed:	\$	
Was there any disbursement of surcharge revenues during the reporting period?	Yes	No
If so, how were the funds utilized?		(X)
Curtailment Administration		
Incentive Payments		
Low Income Assistance Programs		
Other (Specify; attach additional pages if needed)		

REGIONAL UTILITY CURTAILMENT REPORT FORM

INSTRUCTIONSGENERAL

The Regional Utility Curtailment Report Form must be filed each month during State-ordered curtailment. It is anticipated that this information will be filed electronically via a spreadsheet/database program developed specifically for this report, and provided to each reporting utility. However, hard copies will still be required to provide documentation and backup in the event of data loss or failure. Each utility must provide a separate report to the State Contact of each State (in the region) in which they provide service. Utilities must also provide a copy of each report to the Utility Coordinator. The names and addresses of the State Contacts and the Utility Coordinator are provided on the last page of these instructions. Utilities are also advised to keep copies of these reports for their own records. The information provided will be used to assess the effectiveness of the curtailment effort, to determine ways to enhance curtailment productivity, to insure that consumers are being treated as uniformly as possible throughout the region by various utilities, and as a historical record of curtailment activities. The analysis of the information provided on this form will enable the States and utilities to determine ways of improving their curtailment plans in the future, or to document the success of the plan in areas where changes are not indicated.

PART I: ORIGINAL FILING INFORMATION

Part I of the Regional Utility Curtailment Report Form will be filled out at the beginning of any State-initiated load curtailment. It will probably not need to be revised during the curtailment period, unless the utility decides to designate a different Contact Person, the information about the Contact Person changes, or the utility has modified its procedures in such a way as to cause the answers to the questions on the lower portion of the form to change. A copy of the original Part I (or a new Part I if the information has changed) must be included with Part II when it is filed monthly with the Utility Coordinator and the States.

- (1) **NAME OF UTILITY:** Enter your company's official name, or the name by which your utility is commonly known in the region. For example, "Public Utility District of Grant County" may be also be entered as "Grant County PUD". "Puget Sound Power & Light" may also be entered as "Puget Power" or "PSP&L".
- (2) **REPORT DATE:** Enter the date that you are filling out the report, or the date that you complete the report if it takes more than one day.
- (3) **PRIMARY AND ALTERNATE CONTACT PERSON:** In the first table, enter the information for the person that your utility has designated as the official contact for issues related to Regional Load Curtailment. This is the person who will be notified if there are any changes in the Regional Curtailment Plan or meetings scheduled to discuss it's progress, and who will be responsible for your utility's compliance with your State Plan.

In the second table, enter the information for the person your utility has designated as an alternate to the primary Contact Person designated in the first table. This person will be expected to assume the duties and responsibilities of the primary Contact Person if that person is unavailable for any reason.

NAME: Provide the official name of the Contact Person, and/or their preferred nickname. For example, Seattle City Light might enter "G.R. (Jerry) Garman".

TITLE: (Optional) Provide the title of the Contact Person at the utility they represent. For example, "Deputy Supt.", "Power Planning Manager", or "Director, Power Management".

ADDRESS: Enter the address at your utility where official Regional Load Curtailment correspondence should be sent in order to reach the Contact Person.

PHONE: Enter the phone number at your utility where the Contact Person may normally be reached during business hours. Include the extension number if appropriate. If the Contact Person has a direct line available which would allow bypassing the general switchboard or customer service lines, this number should be provided.

FAX: Enter the number at your utility (if one is available) where FAX messages can be received by the Contact Person.

PAGER: Enter the number (if one is available) where the Contact Person may be reached by pager, if necessary, after hours, on weekends and holidays, or in the event of an emergency requiring their attention when they are not available at their regular work phone number (provided above).

- (4) **LOCATION OF SERVICE AREA:** A separate report must be filed for each State (within the region) in which your utility provides service. Enter an X in the blank to the right of the State for which you are filing this report.
- (5) **TOTAL NUMBER OF CONSUMERS IN SERVICE AREA:** For the purpose of Regional Load Curtailment, consumers are divided into three classifications based on their level and type of consumption.

Residential consumers are those whose electrical consumption is utilized at their homes, and are usually designated as "residential" consumers by their utility's rate schedule.

General Use consumers are those who are non-residential, but whose average consumption during the previous year was less than or equal to 5 Megawatts per hour (< or = 43,800 MWh total annual consumption). Average consumption is typically calculated by dividing total annual consumption (MWh) by the number of hours in a year (8,760).

Major Use consumers are those who utilized over 5 average Megawatts during the previous year (>43,800 MWh total annual consumption).

MONTHLY BILLING CYCLE: Enter the total number of consumers in each classification who receive their bills on a monthly cycle. These customers will usually receive 12 electric bills per year.

BI-MONTHLY BILLING CYCLE: Enter the total number of consumers in each classification who receive their bills every other month (60 day billing cycle). These consumers will usually receive 6 electric bills per year.

SEASONAL BILLING CYCLE: Enter the total number of consumers in each classification who receive their bills seasonally. These customers will usually receive 2 electric bills per year.

- (6) **QUESTIONS:** The Regional Load Curtailment Plan allows utilities to determine whether or not to include consumers with estimated base period data in their audit samples (see Sections VI.A.(4)(b)(1)(c) and VI.A.(3)(c) of the Regional Curtailment Plan). A consumer's Base Period data might have to be estimated if they have been at their current residence or business less than one year. The utility must decide whether their system of estimating consumption is accurate enough to warrant including these consumers in audit samples.

YES: Enter an X in this field if the utility includes any consumers with estimated Base Period data in their Residential and General Use audit samples.

NO: Enter a X in this field only if your utility excludes all consumers with estimated data from these samples.

Utilities are expected to weather adjust (normalize) their system loads as reported on Part II of the Report Form for comparison to actual loads. The consumption levels for each consumer class are also expected to be weather adjusted (normalized), but if doing so is extremely difficult for a utility, the State may allow them to report actual consumption, rather than weather adjusted consumption.

YES: Enter an X in this field if the consumer data reported under "Consumption Levels" on Part II of the Regional Utility Curtailment Report Form will be weather adjusted (normalized).

NO: Enter an X in this field if the consumer data reported under "Consumption Levels" on Part II of the Regional Utility Curtailment Report Form will not be weather adjusted (normalized).

- (7) **AUTHORIZED UTILITY EXEMPTIONS FROM THE STATE PLAN:** If your utility has been exempted by the State from any part of the Plan, you must indicate what these exemptions are.

Weather Adjusting (Normalizing): Enter an X in the field to the right of the related question if you have been exempted from weather adjusting data.

Other: Place an X in the field to the right of "Other" if you have been granted any other exception(s). If you place an X in this field, you must specify the nature of your exemption(s). Attach an additional explanation page if necessary.

If there were any unforeseen circumstances that prevented your utility from fully complying with the State Plan, you must indicate (on an attached explanation page) what the circumstances were, which portion(s) of the Plan you were unable to comply with, how long these circumstances are expected to continue, and your strategy for resolving the problem (if appropriate). If it is expected that these same circumstances will continue to prevent you from fully complying for more than one month, you must apply for a utility exemption. Examples of unforeseen circumstances include a strike of clerical workers or meter readers, a crash of the customer information system computer, a major disruption such as earthquake or volcanic eruption, etc.

PART II: MONTHLY INFORMATION

Consumer classifications (Residential, General Use, and Major Use) are the same on this section as on the Original Filing Information section (see item 5 above).

- (1) **NAME OF UTILITY:** Enter your company's official name, or the name by which your utility is commonly known in the region. For example, "Public Utility District of Grant County" may be also be entered as "Grant County PUD". "Puget Sound Power & Light" may also be entered as "Puget Power" or "PSP&L".
- (2) **DATE OF REPORT:** Enter the date that you are filling out this report, or the date that you complete the report if it takes more than one day.
- (3) **PERSON FILING:** Enter the name of the person who is entering the data on the report for your utility. This information is provided primarily for the benefit of the Contact Person, who will be informed if there are any problems with the data on the form. If the Contact Person will be entering the data personally, they should enter their own name.
- (4) **REPORTING PERIOD:** Enter the month, day, and year that the reporting period begins and ends. Normally, the reporting period will be one month long, and will be specified by the Utility Coordinator. When entering the date, use the format mm/dd/yy (for example: November 7, 1991 would be entered as 11/07/91).
- (5) **STAGE (1-5):** Enter the Stage of Regional Load Curtailment that has been declared by the State Contact for your state. This will be either 1, 2, 3, 4, or 5.
- (6) **PERCENTAGE LEVEL:** Enter the percentage level of curtailment that has been ordered by the States for each consumer class. If the Curtailment Stage is 1, 2, or 3, the percentage level will be the same for all three consumer classes. If the Curtailment Stage is 4 or 5, the percentage level may be different for each consumer class.

- (7) **LOADS DURING REPORTING PERIOD:** The primary purpose of the information in this table is to provide comparisons of the amount of curtailment achieved on the utility's system as a whole (rather than by individual consumers) relative to the projected loads and to the Base Period of the previous year. All figures entered in this table should represent cumulative MWhs for the reporting period. The figures entered must represent the portion of system load that is subject to curtailment under the Region Load Curtailment Plan, and must exclude all (including firm) power sales outside of the region or between utilities within the region. ACTUAL loads should be metered loads without weather adjustment. WEATHER ADJUSTED loads have been normalized to reflect fluctuations caused by unusual weather. Each utility may have their own formula(s) for weather adjusting load, based upon their past experience, and the formulas may vary for different types of consumers, depending on their weather sensitivity.

TOTAL SYSTEM LOAD: Enter the regional firm energy load on your utility's system. For utilities with loads outside the region, the total firm energy load must be adjusted to reflect only those loads served within the region affected by the Regional Curtailment Plan. Utilities that are BPA Purchasers are also required to supply this figure by Section 11(b) of the Power Sales Contract. This figure should not include firm power sales to other utilities within the region, since the energy will be considered a resource on the receiving utility's system.

LOAD FORECAST (BEFORE CURTAILMENT): Enter the most recent estimated regional firm energy load for your utility, as projected prior to the beginning of the reporting period. For utilities with loads outside the region, the estimated firm energy load must be adjusted to reflect only those loads served within the region affected by the Regional Curtailment Plan. Utilities that are BPA Purchasers are also required to supply this figure by Section 11(b) of the Power Sales Contract. This figure should not include firm power sales to other utilities within the region, since the energy will be considered a resource on the receiving utility's system.

BASE PERIOD LOAD: Enter the regional firm energy load on your utility's system during the Base Period that corresponds with the reporting period. This figure should exclude firm power sales within the region, and out-of-region sales. The Base Period is typically the same period of time as the reporting period, but of the previous year.

- (8) **WEATHER ADJUSTED CONSUMPTION LEVELS:** The primary purpose of the information in this table is to provide a comparison of energy use by consumers during the reporting period as compared to the Base Period. This indicates how each consumer class (as opposed to individual consumers) is complying, overall, with the State-ordered level of curtailment. It is anticipated that the overall curtailment level achieved by each consumer class may be less than the level ordered by the State, due to exemptions and adjustments. By weather adjusting the figures, fluctuations caused by unusual weather are eliminated. Enter the total consumption during the indicated period (in cumulative MWhs) for each consumer class.

IF THE STATE ORDERED CURTAILMENT IS VOLUNTARY (STAGES 1 OR 2) DURING THE REPORTING PERIOD, THE REST OF THE FIELDS ON THE FORM MAY BE LEFT BLANK. THE FOLLOWING INFORMATION RELATES TO MANDATORY CURTAILMENT ONLY.

- (9) **COMPLIANCE:** Numbers provided in this table will be compared by the database program to the total number of consumers in the service area (provided on Part I: Original Filing Information) to calculate percentages, and provide cumulative totals.

NUMBER OF CONSUMERS IN SAMPLE: During mandatory curtailment stages, utilities are required to audit (by random sample) a minimum of 1% of their Residential consumers, 5% of their General Use consumers, and 100% of their Major Use consumers. Enter the number of consumers in the sample (by classification) audited by your utility during the reporting period. The consumption levels audited will be from the previous billing cycle.

NUMBER WITH ESTIMATED BASE DATA: Enter the number of consumers in each sample for which there was no valid Base Period data, and for which Target Consumption Levels had to be estimated. The majority of these will probably be those consumers who have been at their current service location for less than one year. Utilities have the option of excluding consumers with estimated Base Period data from their random samples, and replacing them with consumers for which they are able to derive actual Base Period data. If your utility excludes consumers with estimated Base Period data, enter a "0" and indicate "No" on the related question in Part I: Original Filing Information (item 6).

NUMBER (WITH CONSUMPTION) MEETING OR BELOW TARGET: Enter the number of consumers in each sample whose consumption level was less than or equal to their target consumption level. These consumers are in full compliance with the State-ordered curtailment level.

NUMBER (WITH CONSUMPTION) GREATER THAN TARGET BUT LESS THAN THRESHOLD: Enter the number of consumers in each classification whose consumption level was greater than their target level, but within the threshold band. These consumers are not subject to penalties, but should be advised that they are not complying with the State-ordered curtailment level.

NUMBER (WITH CONSUMPTION) GREATER THAN THRESHOLD: Enter the number of consumers in each classification whose consumption was over their target by more than the threshold level. These consumers will be subject to penalties for failure to comply with the State-ordered curtailment level.

- (10) **NUMBER OF CONSUMERS WITH PENALTIES ASSESSED:** The information in this table is intended to provide an indication of the effectiveness of the applied penalties. Cumulative totals will be calculated by the database. If a large number of consumers continue to exceed their target and threshold levels in spite of these penalties, it would indicate that the penalties are not an adequate deterrent. Enter the number of consumers by classification who were assessed penalties at each of the indicated levels for failure to comply with the State-ordered curtailment level.

- 00-004
- (11) **EXEMPTIONS/ADJUSTMENTS:** The first table on this page represents the number of consumers whose exemption and/or adjustment applications were processed during the reporting period.

The second table indicates the estimated load in MWhs represented by the exemptions and/or adjustments that were granted. For customers who are billed other than monthly, the monthly estimate may be derived by dividing a bi-monthly meter reading in half (for example), or any other means the utility feels is appropriate.

EXEMPTIONS APPLIED FOR: Enter the number of exemption applications that were received by your utility during the reporting period.

EXEMPTIONS GRANTED BY UTILITY: Enter the number of exemption applications that your utility granted during this reporting period in the first table.

In the second table, calculate the total load of exempted consumers (converted from kWh to MWh) during the previous reporting period. This figure should be the sum of the meter readings for each consumer who was exempted by the utility from mandatory curtailment.

EXEMPTIONS DENIED BY UTILITY: Enter the number of exemption applications that your utility denied during the reporting period.

EXEMPTIONS PENDING REVIEW BY UTILITY: Enter the total number of exemption applications that your utility was unable to process during the reporting period. These may include applications carried over from previous reporting periods. This figure provides an indication of a utility's ability to meet the administrative task of processing the number of exemption applications received in a timely manner.

ADJUSTMENTS APPLIED FOR: Enter the number of adjustment applications that were received by your utility during the reporting period.

ADJUSTMENTS GRANTED BY UTILITY: Enter the number of adjustment applications that your utility granted during this reporting period in the first table.

In the second table, calculate the total load (converted from kWh to MWh) exempted from mandatory curtailment due to adjustments that were applicable during the previous reporting period. This figure should be the sum of the load adjustment for each of the consumers who were granted a specific adjustment by the utility for that particular reporting period.

ADJUSTMENTS DENIED BY UTILITY: Enter the number of adjustment applications that your utility denied during the reporting period.

ADJUSTMENTS PENDING REVIEW BY UTILITY: Enter the total number of adjustment applications that your utility was unable to process during the reporting period. These may include applications carried over from previous

reporting periods. This figure provides an indication of a utility's ability to meet the administrative task of processing the number of adjustment applications received in a timely manner.

EXEMPTIONS GRANTED BY STATE: In the first table, enter the number of exemption applications that were previously denied by your utility, but that were appealed to, and granted by, the State. The State will provide notice to the appropriate utility anytime they decide to grant an exemption appeal.

In the second table, calculate the total load during the previous reporting period (converted from kWh to MWh) of consumers whose exemption appeals have been granted by the State. This figure should be the sum of the meter readings for each consumer who was exempted by the State from mandatory curtailment.

ADJUSTMENTS GRANTED BY THE STATE: In the first table, enter the number of adjustment applications that were appealed to, and granted by, the State during this reporting period.

In the second table, calculate the total load (converted from kWh to MWh) exempted from mandatory curtailment due to adjustment appeals granted by the State that were applicable during the previous reporting period. This figure should be the sum of the load adjustment for each of the consumers who were granted a specific adjustment by the State for that particular reporting period.

(12) **DOLLAR AMOUNT OF PENALTY SURCHARGES ASSESSED:** Enter the total amount of penalty surcharges assessed during the reporting period.

(13) **DISBURSEMENT OF SURCHARGE REVENUES:**

YES: Enter an X in the "yes" field if any revenues from penalty surcharges were expended during the reporting period. If an X is entered in the "yes" field, you must indicate how the funds were utilized in one or more of the fields below. Enter an X in any field that applies. If an X is entered in the "other" field, you must attach an additional page explaining how the funds were utilized.

NO: Enter an X in the "no" field if there was no expenditure of penalty surcharge revenues during the reporting period.

ADDRESSES FOR FILING REGIONAL UTILITY CURTAILMENT REPORT FORMSUTILITY COORDINATOR:

Northwest Power Pool
Attn: Rich Nassief
26 S.W. Salmon Street, Suite 400
Portland, OR 97204

PHONE: (503) 464-2807
FAX: (503) 464-2819

WASHINGTON STATE:

Washington State Energy Office
Attn: Mark Anderson
809 Legion Way, SE FA-11
Olympia, WA 98504-1211

PHONE: (206) 956-2012
FAX: (206) 753-2397

IDAHO STATE:

Idaho Public Utilities Commission
Attn: Keith Hessing
State House Mail
Boise, ID 83702-6000

PHONE: (208) 334-0348
FAX: (208) 334-3762

OREGON STATE:

Oregon Public Utility Commission
Attn: Roger Colburn
300 Labor & Industries Bldg.
Salem, OR 97310-0335

PHONE: (503) 378-6894
FAX: (503) 373-7752

MONTANA STATE:

State of Montana - Energy Division
Attn: John Goroski
Dept. of Natural Resources & Conservatio
1520 East 6th
Helena, MT 59620-2301

PHONE: (406) 444-6762
FAX: (406) 444-6721

APPENDIX E

CONTACT INFORMATION REGARDING

THE UTILITY COORDINATOR, STATE CONTACTS, AND UTILITY CONTACTS

<u>Contact</u> <u>[Alternate]</u>	<u>Address</u> <u>[Alt. Address]</u>	<u>Phone</u> <u>[Alt. Phone]</u>	<u>Fax</u> <u>[Alt. Fax]</u>
UTILITY COORDINATOR			
Rich Nassief, Director [Glenn Traeger]	Northwest Power Pool 26 SW. Salmon Street, Suite 400 Portland, OR 97204	503-464-2807 [503-464-2809]	503-464-2819
STATE CONTACTS			
<u>Idaho State</u>			
Keith Hessing [Don Olason]	Idaho Public Utilities Commission State House Mail Boise, ID 83702-6000	208-334-0348 [208-334-0349]	208-334-3762
<u>Montana State</u>			
Alan Davis, Bureau Chief [Van Jamison, Administrator]	Montana Dept. of Natural Resources & Conservation - Energy Division 1520 E. Sixth Avenue Helena, MT 59620-2301	406-444-6756 [406-444-6754]	406-444-6721
<u>Oregon State</u>			
Ron Eachus, Commission Chairman [William Warren, Administrator of the Energy Division]	Oregon Public Utility Commission 300 Labor & Industries Building Salem, OR 97310-0335	503-378-6611 [503-378-6053]	503-373-7752
<u>Washington State</u>			
Amy Bell, Director [Dan Dodds]	Washington State Energy Office 809 Legion Way, S.E. FA-11 Olympia, WA 98504-1211	206-956-2001 [206-956-2142]	206-753-2397
UTILITY CONTACTS			
<u>Bonneville Power Administration</u>			
Mark W. Maher, Director Division of Power Supply [Richard L. Haines, Chief Power Schedule Branch]	Bonneville Power Administration P.O. Box 491 Vancouver, WA 98666-0491	206-690-2103 [206-690-2100]	206-690-2920
<u>Chelan County PUD</u>			
Willard Fields, Dir. Power Operations [Jack Clarke, Dir. Customer Service]	P.O. Box 1231 Wenatchee, WA 98807-1231	509-663-8121 [509-663-8121]	509-664-2879

Contact [Alternate]	Address [Alt. Address]	Phone [Alt. Phone]	Fax [Alt. Fax]
<u>Cowlitz County PUD</u>			
J. Leon Smith, General Manager [Vern L. Eaton, Commercial Manager]	960 Commerce Avenue Box 3007 Longview, WA 98632	206-577-7512 [206 577-7503]	206-577-7559
<u>Douglas County PUD</u>			
Eldon E. Landin, Manager [Henry G. LuBean, Power Operations Superintendent]	1151 Valley Mall Parkway E. Wenatchee, WA 98802	509-884-7191	509-884-0553
<u>Eugene Water & Electric Board</u>			
Garry W. Kunkel, Dir. Electric Division [Vaughn W. Scales, Manager of Power Resources]	P.O. Box 10148 Eugene, OR 97440	503-484-3754 [503-484-3767]	503-341-1889
<u>Grant County PUD</u>			
Don Long, Director Power Management [Bob Oberg, Power Operations of Coordinator]	P.O. Box 878 Ephrata, WA 98823	509-754-5055 [509-754-5057]	509-754-5012
<u>Idaho Power Company</u>			
Jim Miller, Manager Power Operations [Jim Collingwood, General Manager, Power Operations]	P.O. Box 70 Boise, ID 83707	208-383-2865 [208-383-2425]	208-368-6905
<u>Montana Power Company</u>			
Robert L. Miller, Executive Assistant Transmission & Power Management [Thomas J. Worring, Manager Power Supply]	40 East Broadway Butte, MT 59701	406-494-8193 ext. 4276 [406-723-5421 ext. 4624]	406-494-4262
<u>PacifiCorp</u>			
Dennis P. Steinberg, Vice President Power Systems and Development	700 N.E. Multnomah - Suite 1600 Portland, OR 97232	503-731-2157	503-731-2027
[Brian D. Sickels, Asst. Vice President Power Systems]	[920 S.W. 6th Ave, Room 1314 PSB Portland, OR 97204]	[503-464-5619]	[503-464-5026]
<u>Pend Oreille PUD</u>			
Jim Scheel, Mgr. of Operations [Dick Arkills, Director of Hydro Operations & Power Supply]	Box Canyon Dam P.O. Box 547 Ione, WA 99139	509-442-3232 [509-442-3232]	509-442-3168

Contact [Alternate]	Address [Alt.Address]	Phone [Alt. Phone]	Fax [Alt. Fax]
<u>Portland General Electric</u>			
Steve Conklin, Manager Power Operations [Gene Cabbage, Manager] Industrial Marketing	121 S.W. Salmon Street Portland, Oregon	503-464-7240 [503-464-8607]	503-464-7375 [503-464-7029]
<u>Puget Sound Power & Light</u>			
Rich Lauckhart, V.P., Power Planning [Bill Gaines, Manager, Resource Operations]	P.O. Box 97034 Bellevue, WA 98009-9734	206-462-3137 [206-462-3145]	206-462-3300 [206-462-3175]
<u>Seattle City Light</u>			
G. R. Garman, Deputy Superintendent Power Resources Branch	1015 Third Avenue Seattle, WA 98104-1198	206-386-4500	206-386-4555
[R. A. Nelson, Director, Power Mgmt. Power Resources Branch]	[1111 Third Avenue, Suite 420 Seattle, WA 98101]	[206-386-4530]	
<u>Snohomish County PUD</u>			
Coe Hutchinson, Director of Rates & Power Supply	P.O. Box 1107 Everett, WA 98206	206-258-8297	206-258-8305
[Barbara Pedersen, Director of Power Supply]		[206-258-8277]	
<u>Tacoma City Light</u>			
Steve Klein, Power Manager [George Whitener, Asst. Power Manager]	P.O. Box 11007 Tacoma, WA 98411	206-593-8295 [206-593-8294]	206-383-9628
<u>U. S. Bureau of Reclamation</u>			
Bob Barbo, Special Asst. to Reg. Dir. for Columbia River Operation [Jim Fodrea, Columbia River Technical Coordinator]	911 N.E. Avenue- Room 125 Portland, OR 97232	503-230-7395	503-230-7397
<u>U. S. Corps of Engineers</u>			
Nick Dodge, Chief, Water Management Div. [Russ George, Chief, Reservoir Control Ctr.]	P. O. Box 2870 Portland, OR 97208-2870	503-326-3735 [503-326-3745]	503-326-6141
<u>Washington Water Power</u>			
W. L. Bryan, V. P., Power Supply [R. L. Storro, Manager, Power Supply]	P.O. Box 3727 Spokane, WA 99220	509-482-8040 [509-482-8080]	509-482-4272

APPENDIX F

STATE STATUTES AND STATE AGENCIES

This Plan is consistent with applicable State law in each of the affected States. The statutes that apply are cited below, along with the State agencies responsible for administration of the law and other relevant utility business.

A. Washington

- (1) Applicable Law
 - The Emergency Powers Act of 1977, RCW 43.21G;
 - State Energy Office enabling legislation - RCW 43.21F, specifically RCW 43.21F.045(1).
- (2) State Authorities
 - Washington State Energy Office (administers curtailment);
 - Washington Transportation and Utilities Commission (approves rates, tenders State orders to IOUs).

B. Oregon

- (1) Applicable Law
 - Oregon Revised Statutes 757.710, ORS 757.720, and ORS 757.730.
- (2) State Authorities
 - Oregon Public Utility Commission (approves rates; administers curtailment);
 - Oregon Department of Energy (consults with the PUC in approving curtailment plans).

C. Idaho

- (1) Applicable Law
 - Idaho Code Sections 61-401, 61-404, 61-405, 61-406, 61-501, 61-502, 61-507, 61-508, 61-520, 61-521, 61-531 through 61-537, 61-612, 61-614, 61-625, and all provisions of Chapter 7 of Title 21 of the Idaho Code.
- (2) State Authorities
 - Idaho Public Utilities Commission.

D. Montana

- (1) Applicable Law
 - Montana Code Annotate - Energy Supply Emergency Powers Act, 90-4-301 through 90-4-319, MCA;
 - Administrative Rules of Montana - Electricity Shortages, ARM 14.8.201 through 14.8.230.
- (2) State Authorities
 - Montana Governor (administers curtailment);
 - Montana Department of Natural Resources and Conservation (compiles and evaluates shortage data, provides analysis and recommendations to Governor);
 - Montana Public Service Commission (sets rates).

APPENDIX G

ANNUAL UPDATES TO THE PLAN

CONDENSED VERSION
REGIONAL CURTAILMENT PLAN
FOR ELECTRIC ENERGY

within the States of Washington, Oregon, Idaho, and Montana

SECTIONS I AND II. PURPOSE AND OVERVIEW OF THE REGIONAL CURTAILMENT PLAN

This Plan identifies the process by which the States of Washington, Oregon, Idaho, and Montana would initiate and implement regional load curtailment. Included in the Plan are detailed procedures to be followed during a protracted regional electrical energy shortage to ensure uniform treatment of all regional consumers. The Plan is not intended to be activated for relatively short-term emergencies such as those caused by extremely cold weather or the temporary loss of a major transmission line, even if individual States take action to alleviate the problem.

The goal of this Plan is to accomplish curtailment while treating consumers fairly and equitably, minimizing adverse impacts from curtailment, complying with existing State laws and regulations, and providing for smooth, efficient, and effective curtailment administration. This Plan serves as a guideline or blueprint for each of the four Pacific Northwest States to use in developing their individual State curtailment plans.

SECTION III. DEFINITIONS

The following definitions apply to terms used in this Regional Curtailment Plan and in individual State plans. If the first letter(s) of the term are shown in parentheses, the term may appear in either upper case or lower case throughout the Plan.

- A. **Base Billing Period.** One of the billing periods comprising the Base Year. Billing Periods are established by the utility and are normally either monthly or bimonthly. Base Billing Period data are weather-normalized before being used to calculate the amount of curtailment achieved.
- B. **Base Year.** Normally, the 12-month period immediately preceding imposition of State-initiated load curtailment. If energy use during that period is atypical, States may select a different 12-month period.
- C. **Critical Load Consumer.** A consumer that supplies essential services relating to public health, public safety, or energy production.

- D. **Curtailment.** Load reduction, irrespective of the means by which that reduction is achieved.
- E. **Curtailment Target.** The maximum amount of energy that a consumer may use and still remain in compliance with the State curtailment order; the Curtailment Target is figured individually for each consumer by Base Billing Period.
- F. **Excess Power Consumption.** The lower of the following two values for loads subject to penalty: (1) the difference between a consumer's actual (or metered) consumption level during a billing period and the Curtailment Target, or (2) the difference between the consumer's weather-normalized energy use during a billing period and the Curtailment Target.
- G. **Extra-Regional.** Any load, resource, or entity located outside of the region as defined in section 3.(14) of P.L. 95-501, the NW Power Act.
- H. **General Use Consumer.** Any non-residential consumer who does not qualify as a Major Use Consumer.
- I. **Implementation Record.** The collection of significant notes, memos, correspondence, and other material generated for each curtailment, whether such documents are formal or informal in nature. The Utility Coordinator is responsible for maintaining the Implementation Record.
- J. **Major Use Consumer.** A consumer who has purchased over 5 average annual megawatts (43,800 MWh) during the Base Year.
- K. **Non-Regional.** Any load, resource, or entity located outside of the region as defined in this Plan.
- L. **Plan.** This Regional Curtailment Plan.
- M. **Region.** The States of Washington, Oregon, Idaho, and those portions of Montana that are west of the Continental Divide and/or within the control area of the Montana Power Company.
- N. **Regional Electric Energy Curtailment Analysis Model (REECAM).** A computer program used by the Utility Coordinator and other interested parties to evaluate the status of the regional electric power system and analyze the need for region-wide curtailment.
- O. **Regional Load.** The load placed by ultimate consumers within the region on their respective utility suppliers; the load subject to curtailment under this Plan.
- P. **State.** Any of the four Pacific Northwest States: Washington, Oregon, Idaho, and Montana.
- Q. **State Contact(s).** Individuals who represent their respective States in connection with curtailment issues.

- R. **State-Initiated.** Actions taken by the States to implement their individual State load curtailment plans.
- S. **Threshold Consumption Level.** The maximum amount of energy that a consumer can use during mandatory load curtailment without being subject to penalties under this Plan.
- T. **Utility Contact(s).** Individuals who represent their respective utilities in connection with curtailment issues.
- U. **Utility Coordinator.** The Director of the Northwest Power Pool.
- V. **Utility Curtailment Reports.** Report(s) summarizing curtailment data; such reports are to be submitted monthly by utilities to their respective States and the Utility Coordinator.
- W. **Weather-Normalization.** The procedure that utilities use to reflect the impact of weather on utility load levels. Some utilities refer to this process as "weather-adjustment."

SECTION IV. CURTAILMENT STAGES

State curtailment directives apply to all Regional Loads. Under the Plan, curtailment is requested or ordered as a percentage of historical, weather-normalized (Base Billing Period) electric energy consumption. Although the curtailment stages are generally associated with increasing deficits, the stages are not necessarily implemented in a sequential manner; the Plan is flexible so as to allow States to move from one curtailment stage to another as required to adapt to rapid and dramatic changes in the energy supply situation.

The five curtailment stages are:

<u>Stage #</u>	<u>Nature</u>	<u>Curtailment %</u>	<u>Type of Curtailment</u>
Stage 1	Voluntary	No Specified %	Uniform among all regional consumers
Stage 2	Voluntary	5% +	Uniform among all regional consumers
Stage 3	Mandatory	5% - 15%	Uniform among all regional consumers
Stage 4	Mandatory	15% 15% + 15% +	Residential Consumers General Use Consumers Major Use Consumers
Stage 5	Mandatory	% Associated with Stage 4 + additional curtailment	Continued Consumer Curtailment plus Utility Action, including Plant Closures and possible Black-Outs

SECTION V. INITIATION OF REGIONAL LOAD CURTAILMENT

Using REECAM (described in Appendix A of the Plan) and other analytical tools, the Utility Coordinator shall monitor the region's energy situation and notify State and Utility Contacts when it appears that a protracted energy shortage could be developing. The State Contacts, in consultation with the Utility Coordinator, Utility Contacts, and other interested parties, will analyze the results of REECAM to determine if regional load curtailment is required. If they agree on the need, they will settle on the appropriate stage and level (percentage reduction), consult with others within their respective States using briefing materials prepared by the Utility Coordinator, and then again coordinate with each other. To the extent changes in the original recommendation are indicated as a result of such intra-State consultations, the State Contacts will work together to reach a new consensus. The State Contacts will then begin developing situation-specific curtailment implementation procedures. The States will initiate region-wide load curtailment by notifying the public, the Utility Coordinator, and all utilities operating within their respective borders that load curtailment is in effect.

SECTION VI. ADMINISTRATION OF STATE-INITIATED CURTAILMENT

A. Utility Activities

(1) Overview

- (a) **Ability of Utilities to Comply with Plan Requirements.** Utilities will conform to the requirements of their respective State plans to the extent possible. Utilities may petition their States for exemption from specific requirements of their State plan.
- (b) **Stage-by-Stage Utility Administrative Obligations.** Upon notice that their respective States have called for regional load curtailment, the region's utilities shall immediately begin complying with the directives of their State plan(s). All requirements for lower level stages continue to apply to higher level stages. Throughout the curtailment period, utilities will provide consumers with as much useful information as they reasonably can. The requirements specified below represent the minimum actions that each utility must take to remain in compliance with the Plan.
 - **Stage 1.** Utilities must begin (or continue if they have already begun) providing curtailment information to their consumers. Both the nature of the information and the means by which they convey it to consumers (media communications, bill stuffers, etc.) are left to the utility. Utilities shall also assist States, as appropriate, in briefing the media about the shortage.
 - **Stage 2.** In Stage 2, utilities must: (a) notify their consumers of the percentage level of State-initiated voluntary curtailment; (b) provide curtailment tips to consumers; (c) answer consumer questions about curtailment; (d) provide curtailment reports to the States and the

Utility Coordinator; and (e) provide more detailed information to the media than provided in Stage 1.

- **Stage 3.** In Stage 3, utilities must: (a) notify their consumers of the percentage level of State-ordered mandatory curtailment; (b) calculate weather-normalized Base Billing Period data and Curtailment Targets for all consumers who will be audited in the current billing period; (c) provide Curtailment Targets to all consumers who request such data for their own accounts; (d) provide audited consumers with information about how to apply for exemption and adjustment of Base Year data; (e) process requests for exemption and Base Year data adjustments from those consumers selected for audit who would otherwise be subject to penalties; and (f) implement the penalties aspect of the Plan.
- **Stage 4.** In Stage 4, utilities must notify their consumers of any applicable changes in State-initiated mandatory curtailment.
- **Stage 5.** In Stage 5, utilities must collaborate with the States to develop and implement the most effective methods for securing the required load curtailment.

(2) **Suggested Curtailment Actions.**

Utilities shall disseminate information to consumers regarding actions they can take to reduce their electric energy consumption. The States and utilities will work together to develop this material. The recommendations will be based on the actions described in Appendix C of the Plan, "Curtailment Measures." Utilities will be responsible for tailoring this curtailment information to their service areas, adding utility-specific information, printing, and disseminating the material to their consumers.

(3) **Base Year Data and Curtailment Targets.**

- (a) **Identification of the Base Year.** Each time the Plan is activated, the States will identify the applicable Base Year. Once established, the Base Year for a shortage will remain unchanged throughout the curtailment period. Normally, the Base Year is the 12-month period immediately preceding initiation of load curtailment under this Plan. Base Year and Base Billing Period data shall be weather-normalized using the utility's standard procedures. The States may choose an alternative Base Year if they decide that the data for the 12-month period preceding load curtailment is atypical and its use would result in an inequitable allocation of curtailment among the region's consumers.
- (b) **Estimating Base Billing Period Data for Consumers for Whom No Base Billing Period Data Exists.** Base Billing Period data must be obtained or developed for any consumer who is audited under this Plan. Utilities have the option of excluding residential and General Use

Consumers without actual Base Billing Period data from the random sample of audited consumers. Utilities must estimate the Base Billing Period data for any audited consumer for whom actual data does not exist or is found to be inaccurate.

- (c) **Communicating Curtailment Target Information to Consumers.** During mandatory curtailment, utilities are required to provide retrospective, current billing period, and forthcoming billing period Curtailment Target information to any consumer who so requests. Utilities are also required to provide retrospective Curtailment Target information to any audited consumer who will be issued a warning or penalty. At their option, utilities may provide Curtailment Target information to other consumers or consumer classes as well.

- (4) **Auditing Consumers for Compliance with State Orders for Mandatory Load Curtailment.** Each month, utilities must audit at least one percent of residential users, five percent of General Use Consumers, and 100% of their Major Use Consumers (including those Major Use Consumers with estimated Base Billing Period data) plus any consumers penalized in the previous billing period. The number of consumers exempted or excluded from audit does not affect the sample size.

New samples shall be drawn each month. Consumers penalized under this Plan shall continue to be audited until their energy use falls below the Threshold Consumption Level. Once their energy use falls below that level, they will be audited again only if selected by random sample.

Unless a utility is auditing 100% of its residential users and General Use Consumers, all such consumers selected for audit shall be chosen on a random sample basis, except that the following consumers are to be excluded:

- (a) consumers granted an exemption under this Plan; and (b) consumers with an estimated power bill in the current billing period. Utilities may also choose to exclude consumers with estimated Base Billing Period data, assuming the States do not require their inclusion in the pool of consumers subject to audit.

- (5) **Penalties for Non-Compliance.**

- (a) **Nature of Penalties.** The Plan identifies penalties for non-exempted consumers who fail to comply with State orders for mandatory curtailment. The penalties under this Plan are structured as follows:

<u>Violation *</u>	<u>Penalty</u>
First Bi-monthly Violation	10¢ per kWh of excess use
Second Bi-monthly Violation	20¢ per kWh of excess use
Third Bi-monthly Violation	40¢ per kWh of excess use
Fourth Bi-monthly Violation	1 Day Disconnection + 40¢ per kWh of excess use

Fifth Bi-monthly Violation

2 Day Disconnection +

40¢ per kWh of excess use

Sixth and All Subsequent
ViolationsPenalties are determined by
the State. Civil penalties or
other corrective actions would
be possibilities.

- * The penalty for violators who are billed every two months will escalate on every power bill in which they are subject to penalty. Consumers billed on a monthly basis will be assessed the same penalty on two successive occasions before incurring the next higher level penalty. During any continuous period of curtailment, assessed penalties remain "on the record" for the purposes of administration of subsequent penalties, even if there has been an intervening period of "compliance."

Utilities are expected to adhere to their standard disconnect criteria and procedures whenever disconnecting consumers in accordance with this Plan. Health, safety, and welfare considerations are to be taken into account, and consumers must pay normal disconnect and reconnect charges.

- (b) **Calculation of Financial Penalties.** Financial penalties will be calculated by multiplying the consumer's Excess Power Consumption each billing period by the appropriate penalty level identified above.

- (1) **Threshold Consumption Level.** The Threshold Consumption Level assigned to each consumer class is identified in the table below. If the required load reductions are not occurring during a curtailment period, the States may change the percentage relationship of the Threshold Consumption Level to the Curtailment Target so as to effect better compliance with the curtailment order.

<u>Type of Consumer</u>	<u>Threshold Consumption Level</u>
Residential Consumers	10% above Curtailment Target
General Use Consumers	10% above Curtailment Target
Major Use Consumers	2% above Curtailment Target

- (2) **Excess Power Consumption Calculation.** Penalties are not assessed if a consumer's load (either actual load or weather-normalized load) is equal to, or less than, the Threshold Consumption Level. Excess Power Consumption is the lower of the following two values for each sampled load subject to penalty: (a) (Actual Load) minus (Curtailment Target) or (b) (Weather-Normalized Load) minus (Curtailment Target).

(c) **Assessment of Penalties.**

- (1) **Penalties vs Warnings.** Consumers will be assessed penalties only if they have Excess Power Consumption and if they are to be penalized based on the utility's penalty assessment procedures described below. Any sampled consumer who is not penalized and whose use exceeds the Curtailment Target will receive a warning.

- (2) **Penalty Assessment Procedures.** Utilities sampling at the mandated minimum percentages for each sector as specified in this Plan [1%-5%-100%] (or as otherwise specified by the States and reflected in the Implementation Record) shall assess penalties on all consumers with Excess Power Consumption.

Utilities sampling a higher percentage of consumers than required under the Plan may choose among the following penalty assessment options:

- (a) Assess penalties on all sampled consumers with Excess Power Consumption; (this methodology must be used for Major Use Consumers even if the utility chooses option (b), below, for its other consumer sectors); or
- (b) Develop a ratio of the minimum percentage sample size to the actual percentage sampled for the residential and/or General Use consumer sectors. Multiply the resulting percentages by the total number of violators in each respective consumer sector to determine the minimum number of penalties that must be assessed in each sector. Calculate the percentage violation for each individual consumer that has been sampled (Excess Power Consumption divided by Curtailment Target) and apply penalties to the "worst offenders" in the overall sample based on their percentage "Excess Power Consumption." Also penalize all consumers who were penalized in the previous billing period and who still have Excess Power Consumption.

- (3) **Treatment of DSIs.** Penalties applicable to BPA's direct-service industrial customers will be assessed by the States based on billing data provided by BPA.

- (d) **Billing Consumers for Penalties.** Utilities may describe the penalty on the power bill as "State-mandated" and shall include any State-provided material describing the penalty aspect of the Plan as a bill stuffer in the bills of penalized consumers. The States will consider printing this material on State letterhead so as to reinforce the public's understanding that penalties are due to a violation of State mandate. Utilities shall note

that failure to pay penalties will result in service disconnection in accordance with standard disconnect criteria and procedures.

- (e) **Treatment of Penalties Pending Adjustment/Exemption Determinations.** Consumers who have applied for adjustment of Base Billing Period data and/or exemption from mandatory curtailment may request a stay of enforcement of the penalty aspect of the Plan pending a final decision regarding its request. Any consumer who has been granted such a stay shall be subject to retroactive penalties as applicable if the request is ultimately denied.
- (f) **Use of Funds Collected under the Penalty Provisions of the Plan.** Funds collected under State-ordered penalty provisions of this Plan shall be set aside in a separate account. The ultimate disposition of these funds will be determined by the appropriate State commission in the case of investor-owned utilities and by the governing bodies of publicly-owned utilities.
- (6) **Incentives.** Whenever curtailment is in effect, individual utilities are encouraged to implement creative incentive programs to motivate consumers to provide additional load reductions relative to their Curtailment Targets.
- (7) **Exemptions and Adjustments.**
 - (a) **Consumer Application for Exemption/Adjustment.** Utilities are responsible for informing their consumers how to apply for exemption from Plan requirements or adjustment of Base Billing Period data. Utilities may elect to process exemptions and adjustments only for audited consumers. Consumers seeking an exemption or adjustment shall apply first to their utility and then, if dissatisfied with that outcome, to their respective State. The State will not consider any consumer's appeal unless it has first been processed by the consumer's utility.
 - (b) **Granting Consumer Requests for Exemption from Mandatory Curtailment.** No automatic consumer exemptions will be granted under mandatory State-initiated load curtailment. Exempted consumers should be told that exemption may not protect them from Stage 5 black-outs.
 - **Critical Load Consumers.** Critical Load Consumers may be exempted once they have demonstrated to their utility that they have eliminated all non-essential energy use and are using any reliable, cost-effective back-up energy resources in load.
 - **Other Consumers.** Exemptions for consumers not qualifying as Critical Load Consumers under this Plan will be evaluated based on whether curtailment would result in unreasonable exposure to health or safety hazards, seriously impair the welfare of the affected consumer, cause extreme economic hardship relative to the amount of energy saved, or produce counterproductive results.

- (c) **Utility Record-Keeping Relative to Consumer Exemptions.** Utilities shall make their records regarding exemption determinations available to their respective States upon request.
 - (d) **Utility Exemption from State Plan Requirements.** Utilities may appeal to their respective States, requesting an exemption from any aspect of their State plan. Their petition for exemption should identify the specific requirements from which they wish to be exempted, the reason(s) behind their request, and alternative actions that they can reasonably take in lieu of such requirements.
- (8) **Measurement of the Amount of Curtailment Achieved and Determination of Compliance.** At all times during State-initiated regional load curtailment, utilities shall provide their respective States and the Utility Coordinator with consumption and savings data on a monthly basis in the form specified in Appendix D of the Plan. To the extent that circumstances at the time of actual load curtailment dictate the need for additional data or more frequent data submittal, the States shall so inform the utilities and the utilities shall use best efforts to comply with the State request.
- (9) **Special Arrangements.**
- (a) **Use of Consumer-Owned Generation Facilities.** The States' mandatory curtailment orders apply only to electric energy purchased from a utility: all consumers are required to reduce their electric energy purchases from their utility by the required percentage. However, consistent with their respective utility's needs for safety and system protection, consumers having their own generation facilities or access to electricity from non-utility power sources may use energy from those other sources to supplement their curtailed power purchases from their electric utility.
 - (b) **Curtailment Scheduling.** During periods of mandatory curtailment, a consumer is obligated to provide the requisite amount of curtailment within each billing period. Within that period, and subject to equipment limitations and utility rules on load fluctuations, consumers are free to schedule their curtailment so as to minimize the economic cost, hardship, or inconvenience they experience as a result of the mandatory curtailment requirement.
 - (c) **Case-by-Case Arrangements.** Utilities may choose to work creatively with individual consumers to secure additional curtailments as appropriate.

B. **State Activities**

- (1) **Providing Curtailment Information to Utilities.** States shall provide utilities with information regarding curtailment administration and work with utilities to

develop consumer curtailment tips for consumers. (See Plan Appendix B, "Types of Curtailment Information" and Appendix C, "Curtailment Measures.")

- (2) **Processing Utility Requests for Exemption and Second Level Consumer Appeals for Adjustments and/or Exemptions.** The States shall process utility requests for exemption from Plan requirements and consumer requests for either exemption or adjustment of Base Year data in cases where the consumer is appealing its utility's determination. The States shall keep interested parties apprised of the status of appeals-in-process.
- (3) **Periodic Reassessment of Administrative Decisions and Maintenance of the Implementation Record.** Together, the States will review the appropriateness and continued applicability of implementation decisions on a monthly basis, or as otherwise indicated. Significant decisions shall be recorded in the Implementation Record. The types of matters that will be addressed in the periodic reviews and which may be reflected in materials that will become part of the Implementation Record include:
 - **Achievements and Objectives.** Analysis of the amount of curtailment actually achieved based on the data provided in the Utility Curtailment Reports and a review of the most recent REECAM results;
 - **Curtailment Stage and Level.** Identification of the applicable curtailment stage and level; also, any identified procedures for changing the applicable curtailment stage and/or level;
 - **Public Information.** The general agreement among the States as to how to disseminate the curtailment message: tenor of messages, dates of announcements, specifics as to utilized media, etc.;
 - **Base Year Consumption.** The Base Year to be used for measuring curtailment impacts;
 - **Procedural Matters.**
 - (a) Development of additional administrative procedures as required;
 - (b) Assessment of the need, if any, for making changes to the Plan to secure increased compliance with the curtailment directives;
 - (c) Discussion of implementation problems and proposed solutions thereto; and
 - (d) Evaluation of the appropriateness of the materials being made available to utilities and provided by utilities to the States, and a determination as to whether changes are required;
 - **Curtailment Records.** The specific requirements on utilities and States regarding curtailment records (what needs to be recorded, how that information will be stored, who can access it...); and

• **Return to Normal Operations.** The general agreement among the States relative to announcing an end to regional load curtailment and resuming normal utility operations.

- C. **Return to Normal Operations.** Once the shortage is alleviated, the States and utilities must bring closure to the curtailment process and effect a return to normal operations. The States will detail the process for utilities to follow. The nature of the actions to be taken will be influenced by the applicable stage of curtailment. At a minimum, the following types of activities need to occur: (1) The public must be informed that curtailment is no longer required; (2) Curtailment activities must officially cease as of the date that curtailment orders are lifted by the States. The States will provide utilities with guidelines to bring closure to curtailment activities such as: exemptions and appeals, penalty assessments, curtailment incentives (if any), and curtailment reports; and (3) State authorities will take whatever action is required to rescind any State orders for mandatory load curtailment.

SECTION VII. UTILITY LIABILITY AND FINANCIAL RELIEF

State law in each of the four Pacific Northwest States provides for waivers of, or exemptions from, liability in the case of utilities enforcing mandatory load curtailment ordered by the State. Individual consumer data will be treated as proprietary in accordance with standard utility practices and State law (identified in Plan Appendix F). If State law prohibits utilities from releasing consumer account information to the State, consumers seeking exemptions and/or adjustments shall expressly authorize such exchange. Utilities may seek financial relief for the extraordinary costs of curtailment using established channels, including utility rate case procedures and BPA power sales contract provisions.

SECTION VIII. ANNUAL REVIEW, POST-CURTAILMENT EVALUATION, AND UPDATE OF THE REGIONAL CURTAILMENT PLAN

At least once a year and after any curtailment, the Utility Coordinator will convene a meeting of all four State Contacts and interested utilities for the purpose of reviewing and updating the Plan and associated Appendices. Upon completion of the review, necessary changes will be made, a list of those changes prepared, and a revised plan issued. Changes will be noted in Appendix G.

SECTIONS IX AND X. APPENDICES AND RELATED CURTAILMENT INFORMATION

The following appendices are included in the Plan: (A) Regional Electric Energy Curtailment Analysis Model; (B) Curtailment Information; (C) Curtailment Measures; (D) Utility Curtailment Reports; (E) Contact Information Regarding the Utility Coordinator, State Contacts, and Utility Contacts; (F) State Statutes Citations and State Agencies; and (G) Annual Updates to the Plan. The following supplemental material is available under separate cover: (A) Individual State Plans and Summary of the Differences among the State Plans; (B) Utility Plans; and (C) State Statutes (copies of the actual statutory language).