2006 Work Plan for the Committee on Regional Electric Power Cooperation:
Planned Expenditures of Revenues from Control Area Contributions

Contents

Abstract

The Committee on Regional Electric Power Cooperation (CREPC) has created, and the Western Interstate Energy Board has approved, a Work Plan that articulates how states and provinces will help resolve regional power issues. This document explains how the CREPC Work Plan would spend revenues anticipated from control areas in the Western Interconnection ($620,000) based on a voluntary fee requested by Western Governors The requested contributions are allocated among control areas in the same manner as used by the Western Electricity Coordinating Council. See Section V for a graph of requested contributions by control area.

The contributions from control areas are part of a larger Work Plan for CREPC that also includes $42,000 in contributions from the Western Interstate Energy Board and the Western Conference of Public Service Commissioners to support two meetings per year, outside resources ($200,000) provided by DOE to Lawrence Berkeley National Laboratory to support CREPC work related to market assessment and monitoring, and potentially $50,000 from PUCs to contract for specific multi-state projects that are not identified in the Work Plan.

The expenditure priorities in this document reflect the 2006 priorities for CREPC approved by the Western Interstate Energy Board. This document also identifies priorities if only some contributions from control area are received ("partial budget").

I. Introduction

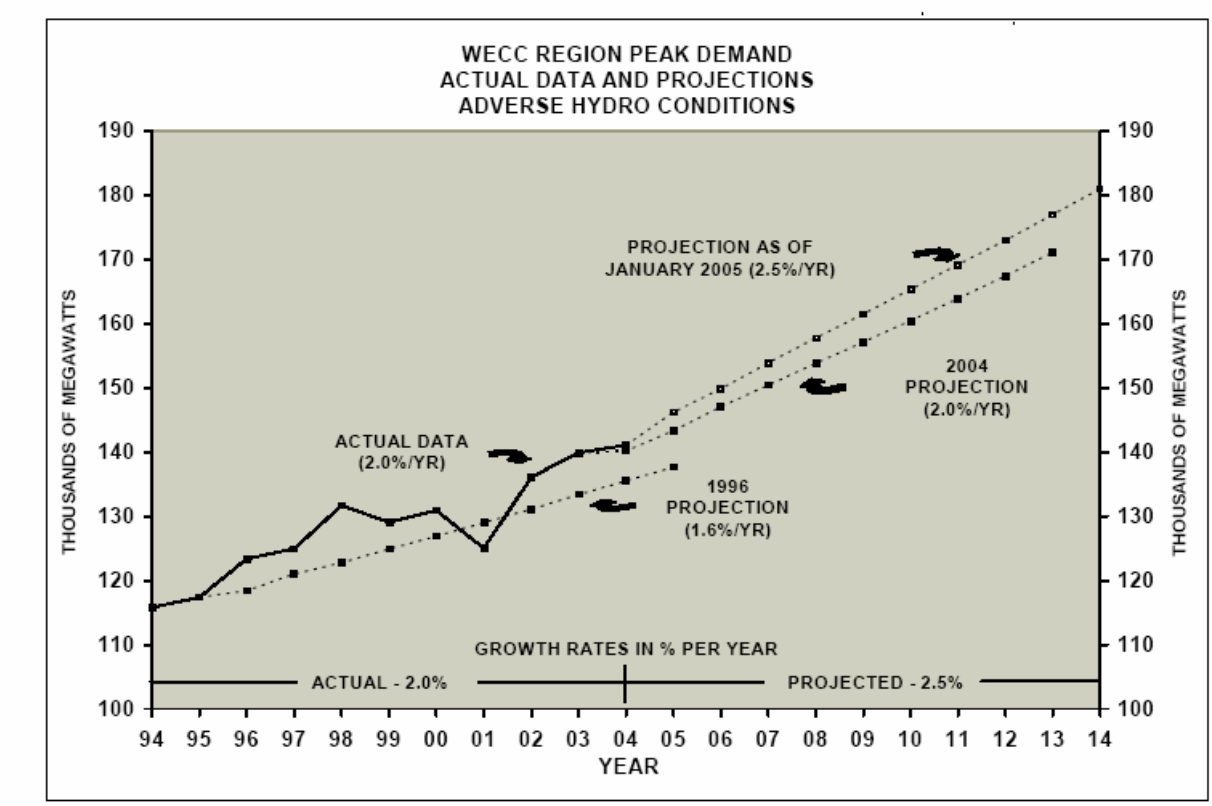
The Western electricity crisis in 2000-2001 made it clear that the economic future of the Western states is critically dependent upon access to an adequate, reliable and affordable supply of electricity. The recent surge in natural gas and electricity prices has once again demonstrated this point. Forging solutions to electricity adequacy, reliability and cost problems has remained a priority of Western Governors since the Western electricity crisis. Western Governors have adopted extensive policies on reliability, resource adequacy, transmission expansion, market monitoring, and transmission permitting. They lobbied for provisions in the Energy Policy Act of 2005 that would help and not hinder Western efforts to ensure affordable and reliable electricity supplies. They have asked the Western Electricity Coordinating Council to develop a plan to implement the reliability provisions of the Act. They have asked control area operators to make voluntary contributions to support state and provincial efforts to resolve regional power issues in the Western Interconnection and they have identified principles by which they will evaluate the progress the industry is making in addressing commercial issues. The Governors have requested CREPC to help in the implementation of several of these policies.

The West now finds itself in an unprecedented time of change and opportunity. The volatility of energy supplies and prices, the passage of the Energy Policy Act of 2005 (EPAct), and the proposed changes in the responsibilities of the FERC, DOE, the states and the energy industry in the wake of the passage of EPAct have converged to create an environment that requires an active response by Western states and provinces. CREPC for some time has been working with the Western Governors' Association to identify consistent funding for an enhanced regional electricity function. The Governors have requested funding be provided by the Western Interconnection control areas beginning in January 2006. CREPC believes that the work enabled by this funding will help the Western states and provinces to play an active and coordinated role in implementing EPAct at the federal, regional, and state level.

Market Fundamentals

The Western Interconnection faces significant challenges to ensure affordable and reliable power supplies to the citizens and businesses of the West. Demand has been growing at more than 2 percent per year. Since the mid-1990s, increasing demand has been met through the construction of gas-fired generation, often near load centers. This has resulted in unprecedented reliance on this fuel for electric generation. In part, this has driven extraordinary increases in natural gas prices to the extent that this fuel is in question as the primary means of meeting future electricity demand. Under severe weather conditions it is possible that supplies could prove inadequate to meet all needs. Industry generation plans reported to the Western Electricity Coordinating Council show this heavy reliance on natural gas-fired generation continuing, with more than 80 percent of new generation additions between 2004 and 2014 being gas-fired. However, the uncertainties

surrounding how demand will be met are large. The continuation of these demand and generation trends is not pre-ordained. (See Situation Analysis in Appendix 1.)



Source: Western Electricity Coordinating Council

The Federal Energy Policy Landscape

The U.S. federal regulatory landscape has changed. FERC is no longer pursuing Standard Market Design and is now focusing on changes to Order 888. The enactment of the Energy Policy Act in August 2005 (EPAct) has given FERC and DOE new authority.[1] For example, in the area of reliability Section 1211 of the Energy Policy Act of 2005 (Section 215 of the Federal Power Act), FERC has new authority to approve mandatory reliability standards in the U.S. portion of the Western Interconnection. Absent tempering influence from the West, the FERC will soon begin calling the shots on reliability as well as many economic issues. These demands may or may not meet Western needs. Regardless, Western consumers will pay for the decisions by FERC (and a new North American Electric Reliability Organization).

Under the Energy Policy Act, the Department of Energy has the responsibility to evaluate transmission congestion and designate "national interest" transmission corridors. FERC can then pre-empt state siting processes that do not grant approval within one-year

[1] Appendix 2 highlights changes in federal law that affect states and the operation of the Western Interconnection.

to a proposed project within a national interest corridor. DOE and federal land management agencies are also directed to establish energy corridors across federal lands.

The Western Energy Policy Landscape

The state/provincial regulatory landscape in the Western Interconnection is diverse and changing. The resurgence in resource planning by load serving entities is helping states and provinces evaluate the costs and risks of future power supply options, including fuel price risk and the risks presented by potential new environmental regulation. Some form of retail access is allowed in several states and Alberta; however, most customers continue to be served by a single LSE. Six states have established renewable portfolio standards and several states have policies to reduce carbon emissions from electric generation.

Following the Western electricity crisis of 2000-2001, the power generation industry also changed. Most new generation is now being built by utilities or merchant power developers pursuant to power purchase contracts with LSEs. Merchant transmission developers seem willing to construct only with significant assurance of cost recovery (e.g., rolling in the cost of Path 15 upgrades into the California ISO's transmission rates).

How the Western power industry addresses interconnection-wide reliability and commercial issues is also evolving. Mandatory reliability provisions in the U.S. federal energy legislation will alter the operation of the Western Electricity Coordinating Council (WECC) and its relationship with a North American Electric Reliability Organization and the FERC. In response to industry discussions organized by the ad hoc Western Assessment Group, WECC is also considering a more active role in resolving several types of commercial issues in the interconnection, including resource adequacy, transmission expansion planning and commercial practices, excluding market monitoring. Activities of the Seams Steering Group-Western Interconnection (SSG-WI), a coordinating body formed to resolve issues at the boundaries of RTOs, are diminishing. SSG-WI, which is the only entity presently conducting interconnection-wide transmission planning, is completing its second interconnection-wide analysis and anticipates transferring its planning activities and related database to WECC. At this time, SSG-WI remains the only organization examining interconnection-wide market assessment/monitoring.

While the West has been active, the steps taken to date have not been sufficient to evaluate whether, and ensure that, resources will be available to meet the needs of a growing economy. California's market and resource policies are still in flux, causing risk for the interconnection overall. There are large uncertainties about future water shortages for hydro generation and/or power plant cooling. Efficiency and demand response can affect the rate of future electricity demand growth, but the extent to which this will occur is uncertain. Future natural gas prices are unknown, but will be a very important factor shaping the western power system. Price forecasts, which have been notoriously optimistic, show prices moderating from the present $10/mmBtu level. LNG facilities have been proposed as one means to help increase natural gas supply but opposition to LNG infrastructure construction and to increased dependence on foreign energy sources that

would be created may limit this opportunity. Most alternatives to gas-fired generation require significant transmission investments that have not yet been made. Environmental goals and policies that will shape generation choices are still emerging. Important technological changes are possible in the next decade, such as new clean coal technologies with the capability to sequester carbon, continued declines in the price of solar, wind, geothermal and biomass technologies, and new transmission technologies that increase transfer capacity.

A Coordinated Response

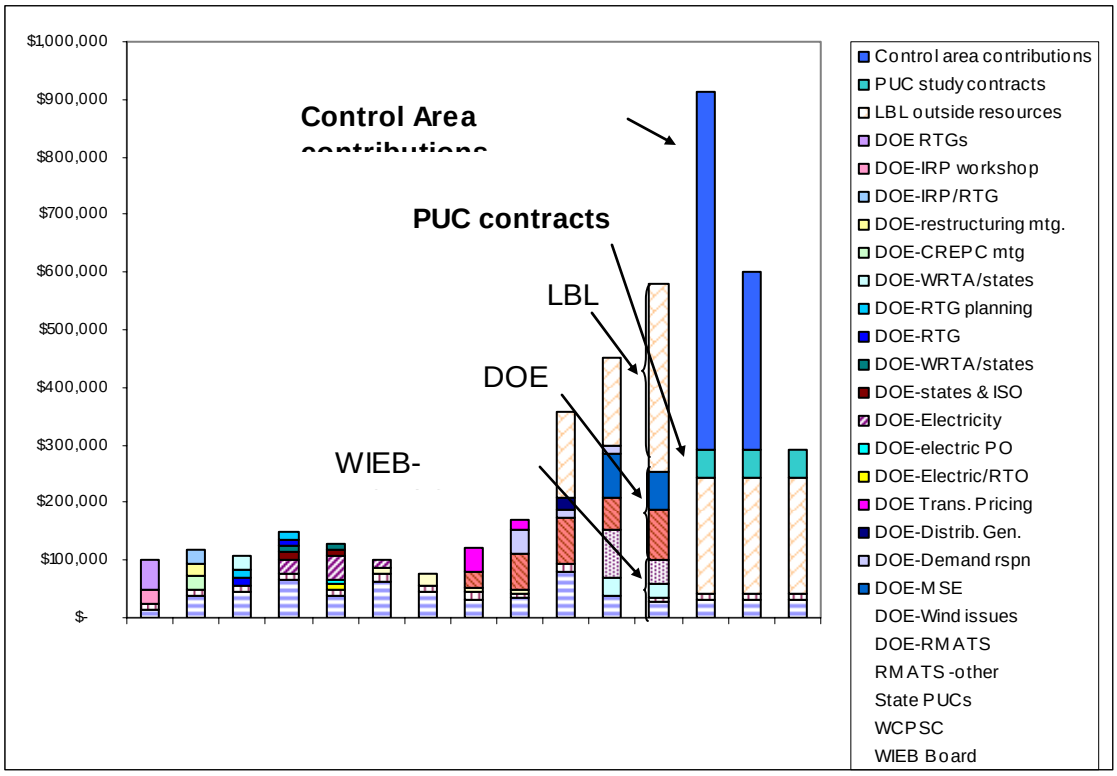
Given the multitude of challenges facing the Western Interconnection, the Committee on Regional Electric Power Cooperation (CREPC) has developed this Draft Work Plan to establish objectives and identify priority tasks to be completed in 2006 that will contribute to the goal of affordable and reliable electricity supplies. Because of uncertainties over available revenues, the Draft Work Plan proposes activities under three alternative levels of funding in calendar year 2006:

A. Contributions from control areas in the amount of $620,000 plus $92,000 from the Western Interstate Energy Board dues, a contribution from the Western Conference of Public Service Commissioners, and contracting by PUCs for yet-to-be-determined studies. In addition, outside analytic resources from the Department of Energy's Lawrence Berkeley Laboratory on market assessment/monitoring would be an estimated $200,000. ("Full budget")

B. Same as #1, except only one-half of the requested funds from control areas. ("Partial budget")

C. Same as #1, except no funds from control areas. ("Low budget")

The graph below summarizes historic funding and that postulated under the three scenarios for 2006.



In brief, the Work Plan proposes work in six areas that would be funded by contributions from control areas. Twice yearly meetings of CREPC, work on market assessment and monitoring, and potential work from contracts among PUCs would be funded from other resources.

- The proposed **resource adequacy tasks** would: enable states/provinces to participate in WECC resource adequacy work; improve resource adequacy analyses by improving the underlying load forecasts; evaluate the impacts of severe weather; work toward appropriate regional resource adequacy targets; conduct outreach activities to PUCs, WECC and others; and better link natural gas and electricity planning. Several of these tasks would be reduced or eliminated under "partial budget" funding and none would be performed under "low budget" funding. Additionally, two important tasks (state/provincial electricity and natural gas plans and co-funding improvements to the existing model developed by the California Energy Commission (CEC) which WECC uses to assess resource adequacy) were not funded under any of the budgets. It is hoped that DOE's support of Lawrence Berkeley National Laboratory will be sufficient to enable LBL to continue to do the excellent work it has done in the evaluation of Western LSE resource plans. It is expected that much of the vital work to improve the model WECC uses to assess resource adequacy will be undertaken by the CEC.

- One **reliability task** – enabling expanded state and provincial participation in WECC activities – is funded under the "full budget" and "partial budget." . No activities would be conducted in this area under the "low budget." One important task, scoping of the economic impacts of outages, which is the analytical bedrock for informed decisions on reliability standards, was not funded However, CREPC believes that evaluating the impacts of outages in the Western Interconnection should be done by the electricity reliability organization and FERC, with extensive participation by states. State/provincial participation in achieving this task may be a candidate for contract funding from PUCs. The Draft Work Plan makes no assumptions about Western Governors potentially creating an interconnection-wide Regional Advisory Body under the Energy Policy Act of 2005. (See discussion of contingencies in Section IV.)

- In the area of **transmission expansion and planning**, the Draft Work Plan proposes travel funds for states/provinces to participate in regional and sub-regional transmission planning efforts. It also includes funds to participate with DOE in the process for identifying "national interest" transmission corridors. Under the "partial budget," funds for state travel to participate in transmission planning would be eliminated and work on national interest transmission corridors would be reduced. No transmission expansion and planning activities would be conducted under the "low budget."

- Regarding **cost allocation and cost recovery for transmission expansion**, the Draft Work Plan proposes completion of work presently under way by the CREPC Transmission Regulatory Principles Work Group (TREG), development of a draft

MOU among PUCs, and a "tabletop" exercise that would test state/provincial procedures for the review and approval of applications for interstate transmission lines. Such an exercise would help identify areas where collaboration among states/provinces could be improved or where existing processes within a state/province may need to be amended. This type of exercise may be particularly timely given the lack of recent experience by state/provincial regulatory authorities in reviewing significant transmission expansion proposals. Under the "partial budget," the TREG work and related MOU would be completed, but no tabletop exercise will be conducted. No activities will be conducted under the "low budget."

- Regarding **transmission permitting**, funds would be used to better understand federal siting pre-emption processes under the Energy Policy Act of 2005 and explore the formation of an interstate compact on transmission siting. These efforts would complement the objective of EPAct to speed the review of proposed interstate transmission projects. Some funds are allocated to help coordinate state/provincial efforts to implement the WGA Transmission Permitting Protocol in the expectation that it may be activated in 2006. Under the "partial budget," no work would be done on coordinating the implementation of the WGA Protocol or exploring an interstate compact. No activities related to transmission permitting will be conducted under the "low budget."

These tasks are designed to shape effective partnerships to enable a better alignment of state/provincial, industry, and federal government objectives. For example, while the Energy Policy Act of 2005 brings challenges to state-federal regulatory balances, it also brings opportunity for transmission to meet Western policy goals and improved system reliability. Establishing a solid footing in the new regulatory regime, and maximizing western regional benefit from new EPAct initiatives can't be achieved by either states or industry working alone. Accomplishing this will require collaborative mechanisms, tasks and funding.

The Work Plan reflects the states/provinces stepping up to the plate to say what we propose to do in a Western collaboration. WECC is working toward a similar work plan proposal in responding to the Western Assessment Group challenge. It is hoped that together these work plans, coupled with industry and regulatory commission actions on issues such as integrated resource plans, can form a tapestry that allows the West to demonstrate it is capable of resolving the challenges it faces and is deserving of delegation, deference and support.

Additionally, this Work Plan will keep Western Governors and others apprised of CREPC's priorities. This is especially important in light of the consistent and specific directions the Governors have provided since the energy crisis of 2000-01.

The remainder of this Work Plan is organized into four sections -- statement of goals and objectives; proposed tasks to be undertaken in 2006; discussion of contingencies; financial management – and several appendices.

II. Statement of Goal and Objectives

In conformance with the policies of Western Governors, the **goal** of the CREPC work plan is to: **"Ensure affordable and reliable electricity supplies for the region's citizens and the regional economy."** See Appendix 1 for a summary of instructions from Western Governors. See http://www.westgov.org/wga_all_resolutions.htm#Energy for full text of WGA energy policy resolutions.

The Western Interconnection faces many challenges and uncertainties: load is growing; industry plans show continued reliance on volatile and high priced gas-fired generation to meet load growth; generation alternatives typically require significant transmission investment which takes time and coordinated effort to put in place; the era of speculative merchant power generation is over; the Energy Policy Act of 2005 has significantly changed the regulatory landscape; state and provincial approaches to supplying power to customers differ, yet achieving the objectives of each state and province requires collaboration with others in the interconnected Western power system; and the Western industry has not yet organized itself to address commercial issues. (See Situation Analysis in Appendix 1.)

The situation analysis indicates an increased need for active public sector involvement in formulating regional and national energy policies. Many of the issues faced by the Western states and provinces are common issues that would benefit from partnership. In particular, CREPC proposes that the Western states and provinces act together to:

1. Participate in and support the Western Electricity Coordinating Council as it transitions toward becoming the Western regional reliability entity under the Energy Policy Act of 2005;
2. Ensure the Western states are adequately represented in federal energy rulemaking and standard setting;
3. Encourage public and private sector interaction and consensus-building by supporting the formation of regional and sub-regional forums;
4. Support the creation of Western energy information repositories that all states and provinces can rely on in setting and implementing their respective state and provincial energy policies;
5. Identify potential barriers to timely transmission development in the Western states/provinces and identify potential solutions.

CREPC proposes that these coordinated western activities pursue the following specific multi-year objectives to make progress. The objectives may be modified to respond to significant changes in the interconnection, but CREPC believes that these objectives encompass the primary long term energy policy areas to which the west needs to mount a coordinated response.

The objectives reflect desired outcomes without regard to which entity achieves those outcomes. In some cases, CREPC anticipates that other institutions, such as WECC,

will undertake activities that help realize the objectives and that CREPC will support WECC activities. In other cases, it is anticipated that CREPC will need to implement tasks to achieve the objectives.

Section III of this Work Plan reflects the tasks that CREPC intends to undertake in calendar year 2006. Some of these tasks will contribute to multiple objectives. For example, better integrated analysis of the Western natural gas and electric systems will aid in achieving reliability, resource adequacy and transmission planning objectives. CREPC also believes that progress in achieving its objectives will contribute to the objectives of recently-enacted U.S. federal energy legislation.

Objectives

1) Shape effective partnerships to enable a better alignment of state/provincial, industry, and federal government objectives.
2) Information needs
    a) Support the creation of a public data base which contains the data necessary to perform and validate transmission expansion planning and resource adequacy assessments and which is consistent with the existing confidential WECC-collected data.
    b) Support the creation of a confidential data base which contains the data necessary to perform market operation and market assessment and monitoring studies and ensure that a public data base exists that is consistent with the proprietary one and which has the necessary data to validate and perform the same studies.
3) Resource assessment and adequacy
    a) Produce transparent and publicly-available assessments of future resource adequacy in the Western Interconnection.
    b) Establish appropriate resource adequacy guidelines/targets endorsed by WECC and CREPC.
    c) Enable state/provincial regulators and the governing boards of non-jurisdictional entities to set resource adequacy standards that are informed by accurate, concise regional analyses.
    d) Support CREPC evaluation and endorsement of west-wide reference cases developed for transmission expansion planning, congestion analysis, and resource adequacy assessments.
4) Reliability
    a) Support regional reliability standards that meet the needs of the Western Interconnection.
    b) Support deference by the ERO and FERC to such standards and delegate the enforcement of such standards to WECC.
    c) Provide intelligent guidance to WECC, the ERO, and FERC from a state and provincial perspective regarding the economic trade-off involved in establishing any given level of protection of electric system reliability.
5) Transmission expansion planning
    a) Ensure state/provincial participation in proactive, interconnection-wide transmission planning and sub-regional planning.

b) Support expansion planning that reflects achievement of state/provincial policies (including approved LSE resource acquisition plans), such as compliance with RPSs, fuel diversity, demand response, etc.
c) Support Western interconnection-wide and sub-regional transmission planning and federal government deference to the products from such planning. There should be significant state (and where germane provincial) participation in the identification of national interest transmission corridors in the West.
d) Enable state (and where germane provincial) participation in the U.S. federal government's designation of energy corridors across federal lands.

6) Cost allocation/cost recovery for new transmission investments
   a) Enable the development of clear and coordinated policies among state/provincial PUCs on how the benefits and cost of multi-state transmission projects will be evaluated in regulatory proceedings.
7) Transmission permitting
   a) Once an interstate transmission project has been proposed, coordinate the implementation of the WGA Transmission Permitting Protocol which has been executed by all Governors in the Western Interconnection and the Premier of Alberta.
   b) Work with FERC/DOE to ensure that rules implementing siting pre-emption provisions of federal energy legislation do not encourage the submission of sham applications to states.

III. Proposed Funding and Tasks: Calendar Year 2006

Proposed Funding Levels

The draft Work Plan proposes activities under three alternative levels of funding in calendar year 2006:

A. Contributions from control areas in the amount of $620,000, funds from the Western Interstate Energy Board dues, a contribution from the Western Conference of Public Service Commissioners, contracting by PUCs for yet-to-be-determined studies, and outside analytic resources from the Department of Energy's Lawrence Berkeley Laboratory on market assessment/monitoring. (**"Full budget"**)

B. Same as #1, except only one-half of the requested funds from control areas. (**"Partial budget"**)

C. Same as #1, except no funds from control areas. (**"Low budget"**)

The following table summarizes proposed task areas proposed to be accomplished in 2006 assuming three different levels of funding.

2006 CREPC Work Plan

Task	Full Budget			Partial Budget			Low Budget		
	Travel	Consultants	Central staff/ overhead	Travel	Consultants	Central staff/ overhead	Travel	Consultants	Central staff/ overhead
Task 1 Resource Adequacy									
1.1 RA targets	$0	$50,000	$0	$0	$50,000	$0	$0	$0	$0
1.2 Linking gas/electric assessment	$0	$40,000	$0	$0	$40,000	$0	$0	$0	$0
1.3 Load forecast scrub	$0	$25,000	$0	$0	$25,000	$0	$0	$0	$0
1.4 Staff support for RA work	$0	$0	$80,000	$0	$0	$50,000	$0	$0	$0
1.5 Severe weather analysis	$0	$30,000	$0	$0	$0	$0	$0	$0	$0
1.6 Participation in LRS/PCC mtgs	$15,000	$0	$0	$0	$0	$0	$0	$0	$0
1.7 Outreach	$0	$30,000	$0	$0	$0	$0	$0	$0	$0
1.8 State/prov. electricity/gas planning	$0	$0	$0	$0	$0	$0	$0	$0	$0
1.9 Co-fund SAM model improvement	$0	$0	$0	$0	$0	$0	$0	$0	$0
Task 2 Reliability									
2.1 Participation in WECC	$21,000	$0	$20,000	$0	$0	$20,000	$0	$0	$0
2.2 Scoping impacts of outages	$0	$0	$0	$0	$0	$0	$0	$0	$0
Task 3 Transmission Planning & Expansion									
3.1 National interest corridors	$14,000	$52,000	$33,000	$0	$30,000	$22,000	$0	$0	$0
3.2 Participation in transmission planning	$32,000	$0	$18,000	$0	$0	$0	$0	$0	$0
Task 4 Cost Allocation/Recovery for Tx									
4.1 Policy paper	$0	$20,000	$5,000	$0	$20,000	$5,000	$0	$0	$0
4.2 MOU	$0	$5,000	$0	$0	$5,000	$0	$0	$0	$0
4.3 Tabletop exercise	$8,000	$25,000	$20,000	$0	$0	$0	$0	$0	$0
Task 5 Transmission Permitting									
5.1 Interstate compact	$10,000	$10,000	$23,000	$0	$10,000	$23,000	$0	$0	$0
5.2 Siting pre-emption	$7,000	$0	$17,000	$0	$0	$0	$0	$0	$0
5.3 WGA Protocol	$0	$0	$10,000	$0	$0	$0	$0	$0	$0
Hardship travel under "partial budget"				$10,000					
Tasks funded by control area contributions	$620,000			$310,000			$0		
Tasks not funded by contributions from control areas									
Two CREPC meetings	$0	$0	$42,000	$0	$0	$42,000	$0	$0	$42,000
State PUC contracts for yet-to-be-determined tasks		$50,000			$50,000			$50,000	
Market Assessment/Monitoring (DOE resources via LBL)			$0						
Outreach to CREPC members	$0	$25,000	$0	$0	$25,000	$0	$0	$25,000	$0
Work plan development	$0	$5,000	$0	$0	$5,000	$0	$0	$5,000	$0
Data assessment	$0	$55,000	$0	$0	$55,000	$0	$0	$55,000	$0
Market assessment scope & methods	$0	$85,000	$0	$0	$85,000	$0	$0	$85,000	$0
Outreach to market participants	$0	$30,000	$0	$0	$30,000	$0	$0	$30,000	$0
Market assessment study/pilot									
Tasks funded from other sources	$292,000			$292,000			$292,000		

Descriptions of Proposed Tasks

To make progress toward achieving the objectives, the Work Plan proposes activities in five topic areas that would be funded from contributions from control areas.

1. Resource Assessment and Adequacy Tasks (Objectives 1, 2, 3)

The assessment of the adequacy of resources to meet demand is of growing interest. Western Governors have asked for an interconnection-wide assessment of the adequacy of electric resources (and related natural gas infrastructure) to meet demand. Some states have set adequacy standards for jurisdictional utilities. Existing WECC interconnection-wide adequacy assessments are improving but are limited in scope and documentation/reporting of results at meaningful levels of geography. Much more work is needed to adequately evaluate transmission system outage risks affecting generation adequacy and other variables (e.g., extreme weather, linkages between gas and electric systems). At present, the assessments are not sufficiently transparent to inform regional decision-makers and stakeholders or enable such entities to rely on the assessments in making decisions related to resource acquisitions.

The following tasks are designed to help develop a sound analytical basis for adequacy assessments/targets and enable regulators to use such assessments/targets. *These tasks will build on and supplement efforts by WECC.*[2] *These tasks do not duplicate existing WECC work.* If WECC successfully undertakes work outlined in the tasks, resources will be shifted to unfunded resource adequacy tasks.

1.1. Technical Support for Resource Adequacy (RA) Guidelines/Targets Development. Technical expertise would be acquired to support WECC staff and its Loads and Resources Subcommittee to conduct work needed to apply Power Supply Design Criteria in WECC's Power Supply Assessment and to evaluate methods for developing RA metrics and numerical values for the 2007 WECC Power Supply Assessment. This would support the second phase of work on RA technical factors beyond the 2005 WGA contract.

- $50,000 for consultant

1.2. Initiate review of physical models of western natural gas infrastructure and options for linking to physical models of the electricity system. At present, WECC's resource adequacy assessments do not include an assessment of the natural gas infrastructure, which is a critical potential bottleneck for natural gas generation in the Western Interconnection. Western Governors have requested a robust resource adequacy assessment that includes analysis of both the electric and related natural gas systems.

- $40,000

[2] WECC's primary assessment of resource adequacy, the Power Supply Assessment (PSA), relies on work done by states. For example, the analytic tool (SAM model) that WECC uses in its PSA was developed by the California Energy Commission. Thus far, WECC has only used some of the model's capability. The Energy Commission is beginning a process to evaluate the development of more advanced public domain tools that will enable a more robust assessment of adequacy than the SAM model allows. This synergistic relationship between work by states/provinces and WECC would be enhanced with the execution of the Work Plan tasks.

1.3. Conduct comparative evaluation and scrubbing, if needed, of existing load forecasts used in various regional and sub-regional assessments; highlight similarities and evaluate whether a current publicly available forecast is acceptable for use in WECC or other adequacy assessments applied at a meaningful level of geography. A consultant would examine information from FERC 714 Part III, Schedule 2 filings (WECC and control area submittals), Pacificorp loads for SSG-WI 2005 studies, Northwest Power Pool, Northwest Power and Conservation Council, WECC power flow cases, Lawrence Berkeley National Laboratory review of IRPs, and other sources. Confidence by state and provincial regulators in the load forecasts used in resource assessment is essential to enable them to rely on WECC assessments in regulatory decisions on the acquisition of resources, including demand response. Most Western regulators have focused on load forecasts in the resource plans submitted by load serving entities. At present, there is no way to correlate such forecasts with those used by WECC in resource adequacy assessments. Additionally, to enable market participants to make informed resource development decisions, and thereby lower costs to Western consumers, market participants must have confidence in the critical elements of resource adequacy assessments, such as load forecasts.

- $25,000 for consultant

1.4. Dedicated WIEB FTE to support resource adequacy activities: These resources would be used to: manage consultant contracts under this task; organize state/provincial conference calls and meetings; draft/edit documents as requested by states/provinces; assist in analyses; maintain a web-based system to alert states/provinces of important upcoming meetings/conference calls/decision points so that they can be effective participants in shaping regional decisions related to resource adequacy.

- $80,000 staff support (0.5 person years of technical analyst and related overhead)

1.5. Develop specific scenarios of severe weather based on actual historical data for sub-areas of the WI. This task would build on and make significantly more robust WECC's initial effort to incorporate weather sensitivities in its Power Supply Assessment. This task would result in additional technical support to WECC staff so they can successfully link existing degree/load relationship parameters to realistic severe weather cases in the 2006 Power Supply Assessment. Weather would be linked to WECC sensitivity parameters. Specific weather scenarios would be identified as a scenario in the 2006 WECC Power Supply Assessment. Load temperature sensitivity factors not already provided by control areas would be developed. This work would be coordinated with the Scripps Institute of Oceanography activity on weather data records. Western Governors have requested that the adequacy of resources to meet demand be evaluated under extreme weather conditions. Multi-season patterns of weather are necessary to understand the dynamics of gas and electric adequacy, particularly coupled with potential multi-year drought.

- $30,000 for consultant

1.6. Provide support for state/provincial participation in WECC Loads & Resources Subcommittee and Planning Coordination Committee meetings and participation in technical meetings with WECC staff in Salt Lake offices.

- $15,000 state/provincial travel

1.7. Initiate outreach/education activities to state and provincial regulators and any Regional Advisory Body that may be formed, including preparing short issue briefs, in-house meetings with regulators/technical staffs of 3 states/provinces and a one day symposium at a central location for all interested states/provinces. Outreach/education would include measurement tools, granularity of analysis and results, and resource adequacy criteria.

- $30,000 for consultant

1.8. Support to State/Provincial Electricity and Natural Gas Planning Processes

1. Create a state/provincial IRP clearinghouse to provide access to IRPs, transmission plans and related planning studies; and state/provincial agency review documents.
2. Retrievable, searchable archive for key documents.
3. Provide support for state planning processes via workshops and conferences.

At present, the public information in WECC's resource adequacy assessments cannot be correlated with similar information in load serving entity IRPs. A better understanding of the information in IRPs is an important step in making connections to WECC's assessments and to improving the utility of WECC assessments in the regulatory actions of states and provinces.

- Not funded. It is hoped that DOE support of LBL's work in this area will continue.

1.9. Co-fund enhancements to the Supply Adequacy Model (SAM) or other public domain tools. This would include conceptual support for incorporating natural gas supply interruptions and support for WECC Loads & Resources Subcommittee work in development of energy assessment methods.

- Not funded. It is expected that most of the work outlined in this task can be undertaken as part of a major new effort by the California Energy Commission to improve public domain adequacy assessment tools.

Task 1 Budget

Full budget estimate

State/provincial travel: $15,000
Consultants: $175,000
Central staff: $80,000 (including overhead)

Partial budget estimate

State/provincial travel: $0 (see hardship travel)
Consultants: $115,000
Central staff: $50,000 (including overhead)

2. Reliability Tasks (Objectives 1, 4)

Decisions on regional reliability standards have always involved tradeoffs between investments to increase reliability and the cost of such investments. Historically, Western states/provinces have deferred to standards set by WSCC/WECC knowing that if such standards were grossly out of line, states/provinces would not compel their utilities to comply with the standard. With EPAct, the final decision-making authority for reliability standards in the U.S. has shifted to FERC. States will need to be active in WECC discussions to ensure appropriate

reliability standards (assuming the deference and delegations provisions in EPAct are implemented as intended).

The principal limitation on effective state participation in making the important economic decisions on how much consumers should have to spend to avoid reliability risks is that these decisions tend to be buried in extremely technical material and discussions that take place in literally dozens of industry subcommittees, work groups, and task forces that have historically provided the work that supports the development and implementation of reliability standards. In order to follow and understand the foundation upon which the emerging mandatory reliability standards are based, states and provinces in the West will have to devote more resources to participating in Member Committees of WECC, and they will have to be organized in pooling their resources and allocating them effectively to the most important activities.

Through an organization like WIEB/CREPC, or the possible Regional Advisory Body made possible by subdivision (j) of section 1211 in EPAct, states and provinces in the West have the opportunity to support what has been largely an industry effort to develop and implement reliability standards. Industry has an unprecedented opportunity to educate the state and provincial regulatory community regarding what it takes to maintain a reliable Western Interconnection. States and provinces can also make unique contributions to an effective partnership between industry and state and provincial government by diligently working to understand the details of the economic trade-offs behind any given level of reliability standard stringency and by supporting the development of standards that will benefit consumers.

2.1 For those states and provinces willing to contribute the time of employees with the requisite training and experience to make a meaningful contribution to reliability standards efforts, CREPC could encourage their participation in WECC activities by providing travel funds to attend (1) Member Committee meetings (the Operating Committee, the Planning Coordination Committee, and the Market Interface Committee) which occur three times a year, and (2) subcommittee, workgroup, and task force meetings as necessary to more fully understand the details of proposals brought forward at the Member Committee meetings. The budget includes travel funds for two state or provincial representatives to attend each of the three Member Committee meetings three times a year and for twelve state or provincial representative trips to attend selected subcommittee, work group, or task force meetings a year. Priorities would be set by CREPC leadership in consultation with WECC Class Five Board members; each trip would require a written report shared with all CREPC members so that the educational value of this participation would be shared throughout the West. The budget provides $19,440 for central staff support of this task

- $21,000 for state/provincial travel
- $20,000 for central staff support and overhead

2.2 States and provinces could collectively contribute to the development of appropriate reliability standards by having a contractor (1) assemble existing analyses in an effort to quantify the economic harm that is done by outages of various magnitudes[3], (2) refine that body of work as it applies to Western Interconnection consumers, including performance of customer surveys,

[3] For example, DOE has estimated that the August 14, 2003 outage in the Eastern Interconnection produced economic harm between $4.5 billion and $12 billion.

and (3) develop information and methods that would help estimate the probability of outages with and without compliance with proposed reliability criteria. By sponsoring and following the progress of a multi-year effort to complete these study tasks, state and provincial governments would understand the basis for and be prepared to support mandatory reliability standards that produce sufficiently reduced risk of outages so that the cost of compliance is justified by the avoided cost of the likely outages.

- Not funded. WECC, the ERO and FERC should undertake an evaluation of the economic harm due to power outages. States/provinces should participate in such an evaluation. State/provincial participation in achieving this task may be a candidate for contract funding from PUCs.

Task 2 Budget

Full budget estimate:

State/provincial travel: $21,000
Consultants: $0
Central staff: $20,000 (including overhead)

Partial budget estimate:

State/provincial travel: 0 (see hardship travel)
Consultants: $0
Central staff: $20,000 (including overhead)

3. Transmission Expansion and Planning (Objectives 1, 2, 5)

The transmission system in the Western Interconnection needs to be expanded to diversify the fuels used to generate electricity and to meet growing demand. The foundation for developing and approving transmission expansion projects that are in the public interest is an open, transparent, proactive regional transmission planning process. Such a process needs to be closely linked to individual LSE resource planning efforts to ensure that (1) regional plans reflect the priorities of LSEs and their regulators and (2) LSE plans consider lower cost options that may become available through expansion of the regional transmission grid.

With the enactment of EPAct, it is important that DOE exercise its responsibilities for evaluating transmission congestion and designate national interest transmission corridors in a manner that reflects the electrical realities of the Western Interconnection and the desires of Western LSEs, consumers, and regulators. Done well, the analysis of congestion and designation of national interest transmission corridors can accelerate the development of needed transmission by fostering a common vision of transmission expansion among market participants, states and federal agencies. Done poorly, the designation of national interest transmission corridors can divert attention from needed actions and delay construction of needed transmission.

The tasks below are designed to: (1) enable states to effectively participate in DOE efforts to evaluate congestion and designate national interest transmission lines in the Western

Interconnection; and (2) enable states/provinces to effectively participate in interconnection-wide and sub-regional transmission planning.

3.1 Significant state participation in the identification of national interest transmission corridors in the West. This task would enable state participation in the U.S. federal government's designation of energy corridors across federal lands. We assume a process in which the Western Governors call on WECC and the industry in general to identify possible national interest and federal land corridors, evaluate those corridors, and make recommendations to the Western Governors. When the industry is ready to make its recommendations, there would be a one-day WGA-sponsored meeting to air the industry evaluations and recommendations. After that, the Western Governors would submit their recommendations on Western national interest corridors and federal lands corridors to the DOE and FERC. In addition, we assume two meetings of ten state representatives to discuss and assess potential national interest and federal land corridors.

- $14,000 for state travel
- $52,000 for the gubernatorial summit
- $33,000 for central staff support and overhead

3.2 Ensure state/provincial participation in pro-active, interconnection-wide transmission planning and sub-regional planning. This task would help cover travel by state and provincial staff to participate in five sub-regional planning efforts: Rocky Mountain Area Transmission Study (RMATS), Northwest Transmission Assessment Committee (NTAC), Southwest Transmission Planning (STEP), Southwest Area Transmission Planning Committee (SWAT), and the Colorado Coordinated Planning Group (CCPG). This task also includes travel funds to enable participation in a proposed WECC Board-level committee to guide interconnection-wide planning and to participate in a related advisory group. WECC is in the process of assuming interconnection-wide transmission expansion planning functions, and related database management functions, from SSG-WI.

- $32,000 for travel to WECC and sub-regional planning efforts
- $18,000 for central staff support and overhead

<u>Task 3 Budget</u>

Full budget estimate:

State/provincial travel: $46,000
Consultants: $52,000
Central staff: $51,000

Partial budget estimate:

State/provincial travel: $0 (see hardship travel)
Consultants: $30,000
Central staff: $22,000

4. Cost Allocation/Cost Recovery for New Transmission Investments (Objectives 1, 6)

Over the last decade, the transmission system in the Western Interconnection has not expanded in proportion to the growth of electrical generation and consumption. While the significance of this trend may be debated, some observers point to regulatory uncertainty in cost allocation and cost recovery as a barrier that discourages developers and investors from pursuing new transmission projects. CREPC formed the Transmission Regulatory Principles (TREG) work group in 2004 to explore regulatory issues concerning transmission in response to a recommendation of the Rocky Mountain Area Transmission Study (RMATS) Phase I report. Consisting of representatives from regulatory commissions from five states (WY, UT, MT, ID and NV), the TREG effort has been examining existing regulatory cost recovery processes, drawing upon case studies of actual historical transmission cost recovery decisions, identifying emerging issues related to transmission, and developing common cost allocation principles for a potential future memorandum of understanding among states and possibly with FERC.

The development of a policy paper under 4.1 will allow TREG to complete work it began in 2004 on regulatory issues. The policy paper may then become the information basis for developing a template for an MOU under Task 4.2. Task 4.3 is designed to test the procedures PUCs (and other agencies) will use to review transmission expansion proposals. In many states/provinces, such procedures have not been used in many years. It will enable states/provinces to understand the procedures in the neighboring states, which is essential for the expeditious review of multi-state transmission expansion proposals. The lessons learned from Task 4.3 may provide potential developers with greater clarity on how reviews of proposed multi-state transmission projects will be conducted.

4.1 Establish a basis for a Western states/provinces dialog on interstate transmission project cost recovery processes and alternatives

a. Provide the Western Governors and Premiers with a policy paper that describes the transmission planning and pricing policies for the Western states and provinces. The paper will include a summary of the transmission cost recovery methodologies that have been used or proposed in North America and it will discuss the impact of the Energy Policy Act of 2005 on transmission project cost recovery options. (Budget 12 days of consultant)
b. This work will include an analysis of the role that CREPC might play relative to the transmission cost recovery processes outlined in EPAct Sections 1221 through 1242 and such other sections as may be identified by TREG (Department of Energy reviews, FERC proceedings, etc.) and whether CREPC might take on new or enhanced functionality to assure the interests of the various member states are best represented. (Budget 5 days of consultant)
c. Coordinate the preparation of the policy paper and EPAct 2005 review with activities being undertaken to address interstate transmission planning and siting. (Budget 5 days of consultant; minor central staff effort)

- State/provincial travel: $0
- Consultant: $20,000
- Central staff: $5,000

4.2 Draft a Memorandum of Agreement template based on the principles recommended in the TREG policy paper for use by sub-regional and regional transmission planning groups.

- State/provincial travel: $0
- Consultant: $5,000
- Central staff: $0

4.3 Develop and administer a role-playing "table top" exercise to review a hypothetical proposed interstate transmission line for state officials and their participating staff.

a. This exercise will be primarily focused on the utility commission of each state/province, but could be coordinated with the transmission planning and siting protocol to reach out to other agencies that may be interested in participating (e.g. environmental, land use, etc.). Each participant would represent their agency's role in reviewing the hypothetical project (e.g., key questions that need to be addressed, deadlines for regulatory actions, standards for review and approval, coordination among multiple state agencies). This type of role-playing exercise will require significant pre-exercise planning, a pseudo project sponsor, a facilitator, as well as participation by state/provincial agencies. There may also be appropriate roles to be played by representatives of regional transmission planning processes, WECC or others.
b. The scenario developed for the exercise would be based on those states/provinces who are interested in participating. If there is interest, it could be expanded to include other states/provinces.

- State/provincial travel: $8,000
- Consultants: Scenario design and exercise facilitator $25,000
- Central staff: $20,000

NOTE: The tabletop exercise may be of interest to DOE and the funds identified above could be leveraged with some DOE contribution that would make the exercise more robust and capable of being replicated.

Task 4 Budget

Full budget estimate:

State/provincial travel: $8,000
Consultants: $50,000
Central staff: $25,000

Partial budget estimate:

State/provincial travel: 0
Consultants: $25,000
Central staff: $5,000

5. Transmission Permitting (Objectives 1, 8)

Twelve Western Governors, the Premier of Alberta, and four federal agencies have signed a protocol for coordinating the reviews of proposed interstate transmission lines. The

protocol has not yet been tested as no new interstate transmission lines have been proposed for permitting. EPAct provides that a state has one year in which to permit a transmission project in a "national interest" corridor designated by DOE. Thereafter, the project sponsor can apply to FERC to pre-empt the state and grant eminent domain to the project developer. EPAct also allows three or more states to enter into interstate compacts for the permitting of new transmission. Where such a compact exists, FERC would not have pre-emptive powers. EPAct also directs DOE to coordinate permitting activities of federal agencies and the designation of energy corridors on federal lands.

Growing demand and a desire for generation fuel diversity requires new transmission, often across state boundaries. Western states should work to implement the WGA Transmission Permitting Protocol. Additionally, there is a need to collaborate with federal agencies as well as block abuses of the federal "backstop" authority created by EPAct.

5.1 Draft an interstate compact, for the Western Governors' consideration, to create a regional transmission siting agency to review, certify, and permit power lines in national interest electric transmission corridors in the West.

Under the Energy Policy Act (Section 216 of the Federal Power Act), three or more states can enter into an interstate compact to create a regional transmission siting agency. Such an agency can "review, certify, and permit siting of transmission facilities, including facilities in national interest electric transmission corridors (other than facilities on property owned by the United States)." FERC cannot issue a permit for an electric transmission facility within a state that is a party to a compact, "unless the members of the compact are in disagreement."

The proposal here is that a team of Western state representatives flesh-out the design of a regional siting entity devoted solely to the review and permitting of lines in national interest corridors (and no other lines) and draft an interstate compact for the Western Governors' consideration and decision.

For purposes of budgeting, we assume that the core technical and legal team would meet once (with the bulk of the work being done by conference call and e-mail). The budget for twelve state representatives attending one meeting is $8,400. WIEB staff time would be an estimated .2 FTE. The team may need to bring in outside consulting expertise at an estimated cost of $10,000.

- $10,000 for state travel
- $10,000 for a consultant
- $23,000 for staff support and overhead

5.2 Ensure that rules implementing siting pre-emption provisions of federal energy legislation do not encourage the submission of sham applications to states. The federal government's rule-setting process is unclear, particularly whether they will actively seek state comment. For budgeting, we assume one meeting of ten state representatives ($7,000) plus 0.1 FTE of WIEB staff time. The bulk of the work would be done through phone conferences and e-mail.

- $7,000 for state travel
- $17,000 for staff support and overhead

5.3 Coordinate the implementation of the WGA Transmission Permitting Protocol once an interstate transmission project has been proposed,. This task allocates $10,000 for central staff support to help coordinate state/provincial efforts to implement the WGA Transmission Permitting Protocol in the expectation that it may be activated in 2006.

- $10,000 for staff support and overhead

Task 5 Budget

Full budget estimate:

State/provincial travel: $17,000
Consultants: $10,000
Central staff: $50,000

Partial budget estimate:

State/provincial travel: 0
Consultants: $10,000
Central staff: $23,000

Hardship Travel

In the "partial budget," $10,000 is reserved for hardship travel for states and provinces. Unlike the "full budget," no travel funds are allocated to individual tasks.

IV. Contingencies

The Energy Policy Act authorizes Governors to create Regional Advisory Bodies (RABs). Western Governors lobbied for this provision and have directed WGA staff to develop a plan to implement a RAB. Below is the text of the provision found in the new Section 215 of the Federal Power Act.

> *`(j) REGIONAL ADVISORY BODIES- (1) The Commission shall establish a regional advisory body on the petition of at least 2/3 of the States within a region that have more than 1/2 of the electric load of the States served within the region.*
> *`(2) A regional advisory body--*
> *`(A) shall be composed of 1 member from each participating State in the region, appointed by the Governor of the State; and*
> *`(B) may include representatives of agencies, States, and provinces outside the United States.*
> *`(3) A regional advisory body may provide advice to the Electric Reliability Organization, a regional entity, or the Commission regarding--*
> *`(A) the governance of an existing or proposed regional entity within the same region;*

`(B) whether a standard proposed to apply within the region is just, reasonable, not unduly discriminatory or preferential, and in the public interest;
`(C) whether fees proposed to be assessed within the region are just, reasonable, not unduly discriminatory or preferential, and in the public interest; and
`(D) any other responsibilities requested by the Commission.
`(4) The Commission may give deference to the advice of a regional advisory body if that body is organized on an interconnection-wide basis.

Another new section of the Federal Power Act (Section 216) requires DOE to consult with RABs when designating national interest transmission lines.

New Section 215 of the Federal Power Act authorizes the collection of mandatory dues to pay for all activities under the section, including the Electric Reliability Organization, Regional Reliability Organizations (e.g., WECC), and RABs.

If Western Governors decide to create an interconnection-wide RAB, they will need to decide on the desired level of activity by the RAB (e.g., only engage on mega-issues or provide continual advice to WECC, the ERO, FERC), voting rules, the institutional home for the RAB, staffing and budgets. Many, but perhaps not all, of the activities outlined in this work plan could potentially be directed and funded by a RAB.

Contingency 1: Governors create a minimalist RAB

Under this contingency, Western Governors create an interconnection-wide RAB with the expectation that it would only be used for a few limited major issues. The cost of operating the RAB would be less than $100,000. None of the analysis contemplated in this draft Work Plan would be done by the RAB.

Contingency 2: Governors create a robust RAB

In this event, the RAB the Governors create would offer continual advice to WECC, the ERO and FERC over the broad range of functions WECC undertakes (e.g., reliability, resource adequacy, transmission expansion planning) and any other topics FERC requests advice on. The cost of operating a RAB would be substantially more than under Contingency 1. Many of the items contemplated in this Work Plan could be undertaken by the RAB. The formation of a robust RAB raises the issue of whether control areas would be willing to make voluntary payments for activities that fall outside the scope of the RAB or whether the mandatory payments for the work of RAB would be the only funds available.

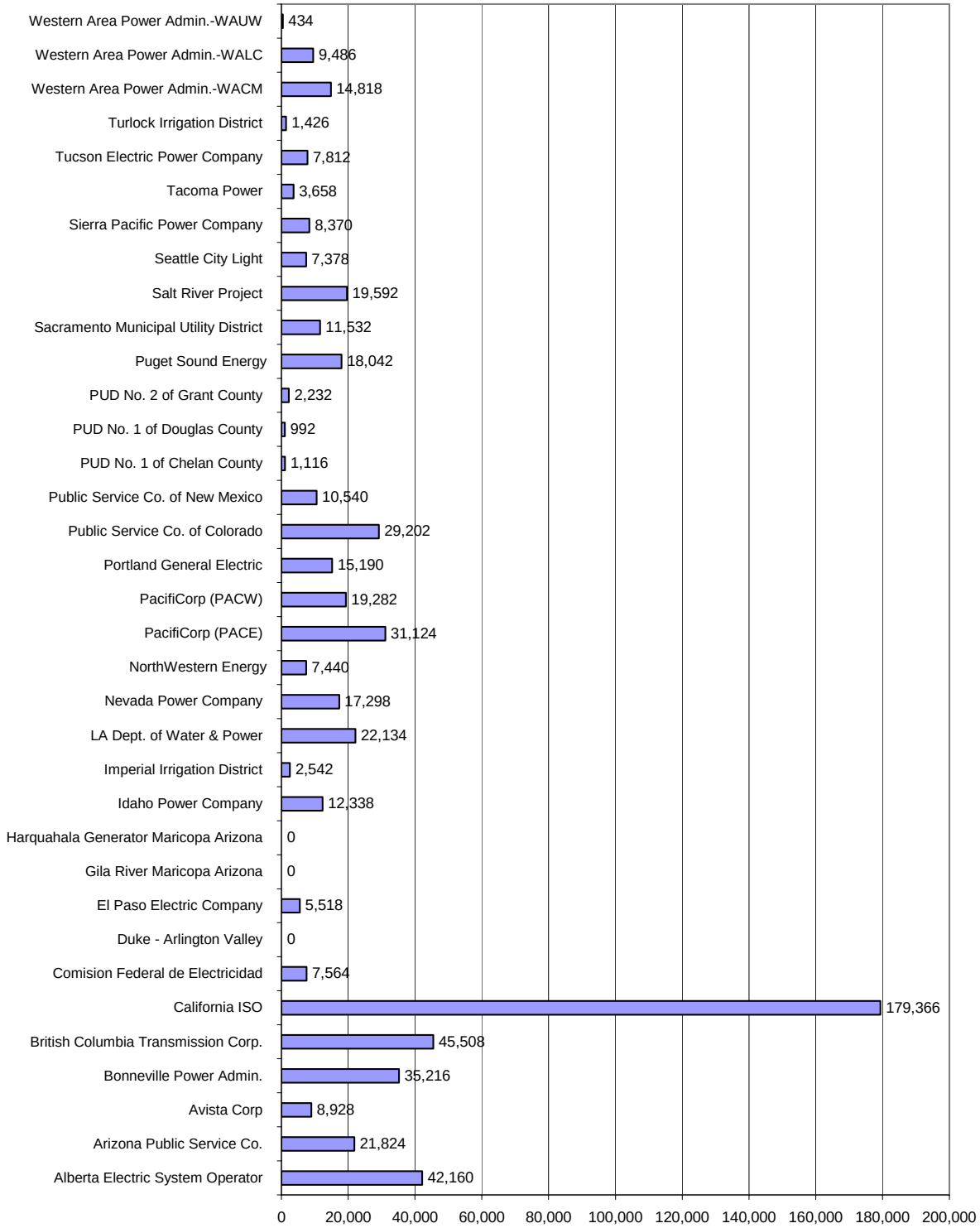
V. Financial Management

On July 12, WGA Chair Governor Napolitano, Vice Chair Governor Rounds, and lead governors for energy Governors Richardson and Freudenthal, wrote each control area in the Western Interconnection conveying WGA Resolution 05-02 on Regional Electricity Policy. The resolution requests voluntary contributions from control areas to build the capacity of the states and provinces to effectively participate in devising and implementing solutions to regional power issues. The Governors proposed an equitable method of financing the modest level of resources needed by proposing that control area contributions be apportioned in the same manner as dues to the Western Electricity Coordinating Council are apportioned.

Allocation of requested contributions

Based on the CREPC Work Plan approved by the Western Interstate Energy Board, total contributions solicited from control areas are $620,000. The following graph shows the allocation of requested contributions by control area.

Requested Contributions from WECC Control Areas Assuming Total Contributions of $620,000



Collection, expenditure and audit of control area contributions

Control area contributions would be provided to the Western Governors' Association. The contributions would be conveyed to the Western Interstate Energy Board[4] which is

[4]Western Governors' Association Resolution 05-02 states that: "The Western Interstate Energy Board, whose members are appointed by and serve at the pleasure of the Governors, already operates as the technical energy arm of the Western Governors' Association, and is the appropriate organization through which to strengthen the ability

responsible for the disbursement and audit of such revenues pursuant to this Work Plan. The receipt and expenditure of funds pursuant to the implementation of this Work Plan would be accounted for separately in the accounts of the Western Interstate Energy Board.

Appendices

1. **Situation Analysis**
2. **State-related Electricity Provisions from the Energy Policy Act of 2005**
3. **Sources of revenues assumed in CREPC's November 2004 report to Western Governors**
4. **Historical sources of financial support for CREPC's work**

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of states to address regional electricity issues." The legal basis of the Board is an interstate compact enacted by 11 Western states. The compact requires annual audits of expenditures. Board expenditures have been subject to an annual independent outside audit for the past 35 years and all audit records are in the public domain.

Appendix 1

Situation Analysis

In the expanding economy in the Western Interconnection, the demand for electric power is growing. Until recently, increasing demand was met through the construction of gas-fired generation often near load centers. However, extraordinary increases in natural gas prices may foreclose that option as the primary means of meeting future electricity demand. LNG facilities are being developed in an effort to help fill the gap between increased natural gas demand for electricity generation and North American supplies. Figure 1 shows WECC's forecast of load growth. Figure 2 shows WECC's 2004 forecast of resource additions.

Figure 1

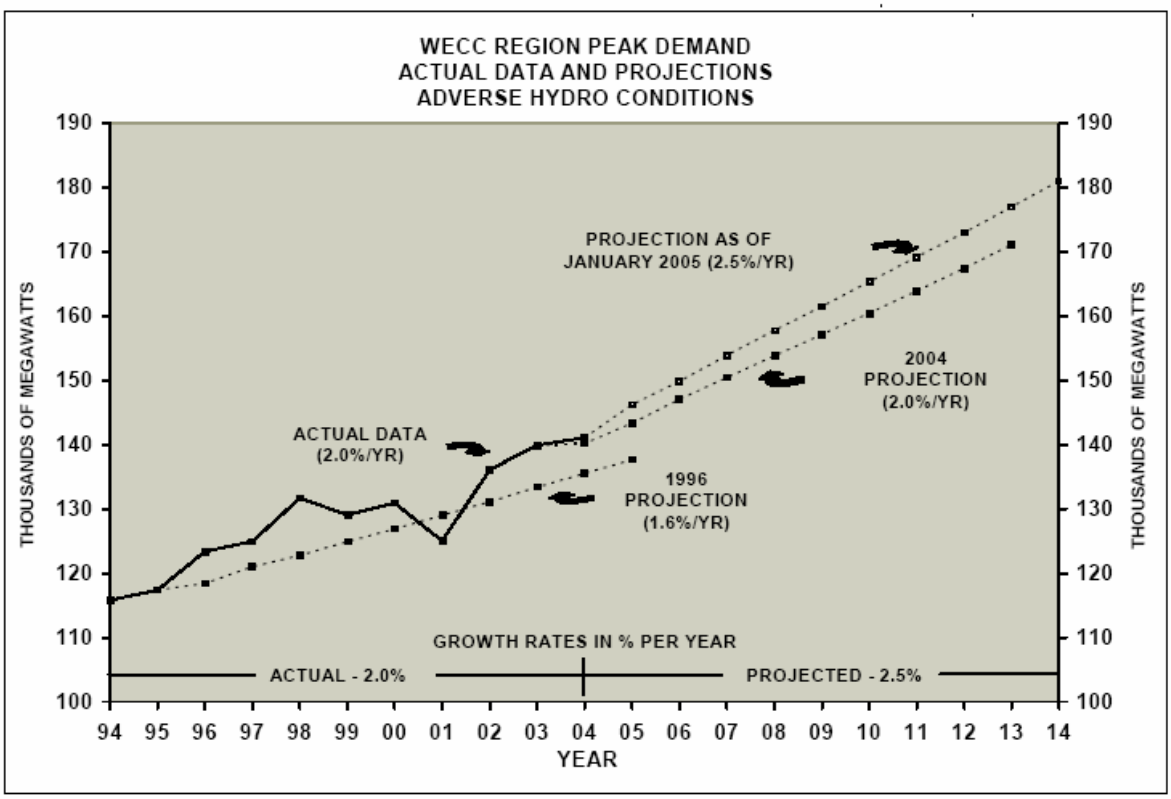
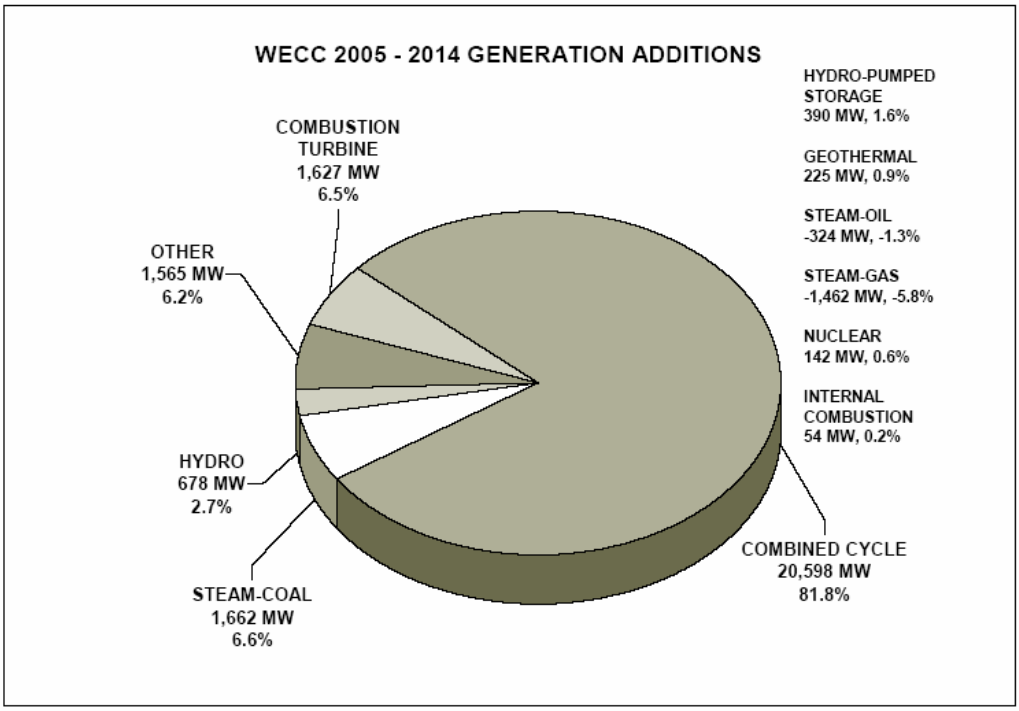


Figure 2
WECC Summary of Control Area Expectations of
Resource Additions



The significant surplus of generation of the 1980s and 1990s is gone. Demand response has made limited inroads in most parts of the West.

The state/provincial regulatory landscape in the Western Interconnection is diverse and changing. The resurgence in resource planning by load serving entities is helping states and provinces evaluate the costs and risks of future power supply options, including fuel price risk and the risks presented by potential new environmental regulation. Some form of retail access is allowed in several states and Alberta, however, most customers continue to be served by a single LSE. Six states have established renewable portfolio standards. Several states have policies to reduce carbon emissions from electric generation. Some states have economic development goals that rely on development of the state's energy resources. Some states (e.g., California) are establishing resource adequacy standards for jurisdictional LSEs. In most states, new generating resources are being acquired pursuant to competitive solicitations. Western Governors and and the Premier of Alberta have signed an interstate transmission permitting protocol that remains untested as no new interstate transmission lines have reached the permitting stage.

The U.S. federal regulatory landscape has changed. FERC is not pursuing Standard Market Design at this time and is now focusing on changes to Order 888. The enactment of the Energy Policy Act in August 2005 has given FERC and DOE new authorities. (The table in Appendix 2 highlights changes in federal law that affect states and the operation of the Western Interconnection.)

For example, in the area of reliability[5], prior to enactment of Section 1211 of the Energy Policy Act of 2005 (section 215 of the Federal Power Act), WECC and NERC provided voluntary standards for the power industry to follow that were aimed at avoiding widespread system outages such as the ones experienced in the West in the summer of 1996 and the one experienced in the East in August of 2003. While states and provinces have been interested in reliability standards, for two reasons it has not been a high priority for many states and provinces. First, such standards must normally apply to geographic areas far larger than any individual state or province. Thus an effective regulatory solution is outside the direct control of state or provincial governments. Second, when the standards were part of a voluntary industry program, the implicit economic choices underlying the standards were not binding on the utilities regulated at the state and provincial level. Thus if WECC or NERC set standards that a state or province believed were too stringent (i.e. cost more than consumers should have to pay) they could simply disallow recovery of investments by the serving utilities under their regulatory control that were supported only by the need to comply with these voluntary standards. Moreover, if the WECC or NERC standards were deemed too lenient, state and provincial regulators could order the utilities under their control to take additional actions to avoid failure of system reliability. As a practical matter, most state and provincial regulators simply accepted WECC and NERC standards as appropriate and allowed pass through of compliance costs to rate-paying consumers. Indeed, the principal limitation on states' and provinces' ability to affect reliability under a voluntary standards regime is that they cannot improve reliability actions taken by utilities outside their regulatory control and must rely on organizations like WECC and NERC to influence all of the entities that operate within an Interconnection through standards.

State perspectives on reliability standards will likely change dramatically with the enactment of Section 1211, which establishes (1) an Electric Reliability Organization (ERO), under the supervision of FERC for those entities that operate in the United States, and (2) Regional Reliability Entities (RREs), such as WECC, to whom the ERO may delegate authority to propose and enforce mandatory reliability standards. As reliability standards become mandatory, states and provinces will lose the ability to disallow costs reasonably incurred to comply with those standards, and, perhaps even more important, states and provinces will, through participation in organizations like the ERO and WECC, gain the ability to influence how much is spent outside their territories to maintain system integrity that directly affects consumers within their territories. States and provinces in the West are particularly well-situated to exercise this new power due to their four year experience participating in the governance of WECC by contributing four members to the WECC Board of Directors.

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[5] By "reliability" we mean avoidance of cascading outages in a system of coordinated operation of multiple control areas. Reliability does not mean that loads are always met. Rather, it means that each control area plans and operates its portion of the interconnected system in such a way that the system can recover from adverse events, such as generation or transmission outages, and time is provided for further actions that can be taken in those situations to prepare for the next potential adverse event. In the Western Interconnection, reliability standards are particularly focused on maintaining voltage stability because the Western Interconnection is characterized by large load centers and generation stations that are widely dispersed and connected by thousands of miles of high voltage transmission, which makes maintenance of voltage a more important factor than thermal limits to transmission lines. The Eastern Interconnection, with far greater uniformity of loads and resources throughout its territory, calls for different efforts to maintain reliability because there, thermal limits to transmission paths tend to be the limiting factor rather than voltage stability. All reliability standards cost money to comply with and thus contain an implicit assumption that the outages that are thereby avoided would be more damaging to consumers than bearing the cost of complying with the standards.

The power generation industry has changed. Most new generation is now being built by utilities or merchant power developers pursuant to power purchase contracts with LSEs. Merchant transmission developers seem willing to construct only with significant assurance of cost recovery (e.g., rolling in the cost of Path 15 upgrades into the California ISO's transmission rates). Most western utilities are on a more sure financial footing than they have been in several years.

With the exception of parts of California and Alberta, transmission owners continue to operate the transmission system. There is no financial transmission congestion management system outside California and Alberta. There is a market monitor in California but nowhere else, with the exception of FERC's Office of Market Oversight and Investigations and a few companies who hired market monitors to accommodate FERC's interests.

How the Western power industry addresses interconnection-wide reliability and commercial issues is also evolving. Mandatory reliability provisions in the U.S. federal energy legislation will alter the operation of the **Western Electricity Coordinating Council (WECC)** and its relationship with a North American Electric Reliability Organization and the Federal Energy Regulatory Commission. In response to industry discussions organized by the ad hoc **Western Assessment Group,** WECC is also considering a more active role in resolving several types of commercial issues in the interconnection, including resource adequacy, transmission expansion planning and commercial practices, but not market monitoring.

Other industry institutions are evolving. **WesTTrans**, a common OASIS system in the interconnection, is growing in membership and functions. New institutions in the Northwest (e.g., **GridWest**, the **Transmission Improvement Group**) are being considered. Sub-regional transmission planning efforts are producing analyses. Some of these efforts are associated with existing organizations, such as the **Northwest Transmission Assessment Committee (NTAC)** with the Northwest Power Pool, and the **Southwest Transmission Expansion Plan (STEP)** with the California ISO. The **Southwest Area Transmission (SWAT)** study effort and the **Colorado Coordinated Planning Group (CCPG)** may be linked to **WestConnect**. The **Rocky Mountain Area Transmission Study (RMATS)** is not associated with any existing institution.

Activities of the **Seams Steering Group-Western Interconnection (SSG-WI)**, a coordinating body formed to resolve issues at the boundaries of RTOs, are diminishing. SSG-WI, which is the only entity presently conducting interconnection-wide transmission planning, is completing its second interconnection-wide analysis and anticipates transferring its planning activities and related database to WECC. SSG-WI remains the only institution examining interconnection-wide market assessment/monitoring.

Western Governors' continue to provide leadership in regional electricity issues. Existing WGA policies:

- Request WECC to prepare a plan to implement the reliability provisions of the recently-enacted U.S. federal energy legislation (WGA Resolution 03-27);

- Direct WGA staff to prepare a plan to implement a Regional Advisory Body authorized under the federal energy legislation (03-27);
- Request control areas to make voluntary payments to enable states/provinces to participate in regional electricity issues (05-02);
- Establish principles by which the Governors will evaluate the industry's efforts to organize to address interconnection-wide commercial issues (05-02);
- Will generate recommendations by June 2006 to foster the development of 30,000 MW of "clean" generation in the WGA region[6] by 2015 and reduce electricity consumption by 20 percent by 2020 (04-14).
- Encourage more accurate price signals to consumers and expand demand response (03-19).
- Support mandatory reliability standards and deference to such standards that are developed on an interconnection-wide basis (03-19).
- Urge FERC deference to the advice of any interconnection-wide regional advisory body of states and provinces.
- Encourage creation and accessibility of a grid-wide database to track demand and the status of new generating facilities (03-19).
- Request development of a robust resource adequacy assessment that includes analysis of the impact of natural gas availability on electricity adequacy (03-19).
- Urge the implementation a pro-active Western Interconnection transmission planning process (03-19).
- Support the expansion of the transmission and pipeline system in the West (03-19).
- Urge RTOs to address at an early stage any factors that may inhibit investment in transmission expansion in the West, including definition of the property or financial rights that accrue to a market participant making a transmission infrastructure investment (03-19).
- Urge effective federal/state action to mitigate the exercise of market power (03-19).
- Support FERC and state PUCs forming joint panels to adopt appropriate mechanisms that will enable cost recovery of transmission investments (03-19).
- Support creation of a Western renewable energy certificate trading system and related generation tracking system (03-19).

Evolving conditions in the Western Interconnection create many new challenges for states/provinces to ensure affordable and reliable electricity supplies for the region's citizens and the regional economy. The following discussion outlines alternative scenarios for the Western Interconnection that can inform CREPC's decisions on the degree to which states/provinces should work to address regional power issues.

Several factors seem clear. The demand for electricity will continue to grow in the Western Interconnection. The power system in the Western Interconnection will continue to be highly integrated and interdependent. The Western Interconnection will largely define the maximum scope of reliability issues and power markets. The U.S. government will play a larger role in reliability decisions in the interconnection. Lead times for major infrastructure investments (e.g., 5-10 years for significant transmission expansion, 5-10 years for coal

[6] The WGA region includes all the states in the Western Interconnection, plus North Dakota, South Dakota, Nebraska, Kansas, Texas, Alaska and Hawaii. It does not include British Columbia and Alberta which are part of the Western Interconnection.

generation, 2-3 years for gas generation, 18 months-3 years for wind generation) will not significantly change.

There are a number of significant driving forces that may drive the evolution of the Western power system. However, there are uncertainties surrounding how important these factors will be in shaping the future of the power system. For example:

- The population and economy of the region will grow. Electricity demand, even with more aggressive demand side actions, will grow.
- Future natural gas prices are unknown, but will be a very important factor shaping the western power system. Price forecasts, which have been notoriously wrong, show prices moderating from the present $10/mmBtu level.
- Major technological changes are possible in the next decade, such as
    - New coal technologies with capability to sequester carbon. (Technically possible and would alter the debate over coal use for electric generation.)
    - Radical drop in the price of solar, geothermal or biomass technologies. (Technically possible and would be particularly important for solar in the Southwest.)
    - Low-speed wind machines become economic. (Technically possible but less important since the West has large areas with high wind speeds.)
    - More efficient gas-fired generation, including lower cost distributed generation. (Incremental improvements in central gas-fired power plants underway, but may not be sufficient to overcome the increase in fuel prices.)
    - New transmission technologies that increase transfer capacity (Some new transmission technologies are being installed now. This could be important in creating significant new transfer capacity in existing corridors.)
- Environmental restrictions may constrain generation choices. For example,
    - New environmental controls, such as carbon dioxide controls could be implemented. (Implementation of national carbon controls is highly uncertain but if done would be a very important factor in shaping the western power system. Some state/provincial carbon policies are shaping electric power decisions today.)
    - Major water shortages for hydro generation and/or power plant cooling. (Increasing water demand is very likely. Extended droughts are uncertain, but would have a major impact of the power system.)
- There may be continuing institutional changes.
    - Federally-mandated reliability standards will be implemented. The scope of such standards, e.g., reaching into resource adequacy, could be important in shaping the western power system.
    - Expanded retail access is possible seems unlikely.
    - RTO-like organizations may be created. (The impact of such new institutions would depend on the breadth of their functions. Current plans for a phased approach to any RTO development would not have a major impact on the power system.)

- Terrorist attacks on energy infrastructure (Depending on the damage caused by such attacks, terrorism could become a major factor shaping the western generation and transmission system.)

A variety of scenarios about the future direction of the electric power system can be postulated. For example:

- **Central station power supplies are constrained** due to:
  - Water shortages for hydro generation and thermal power plant cooling
  - Natural gas shortages and extraordinary gas prices
  - Limitations on carbon emissions
  - New coal development is restricted to IGCC with carbon sequestration

  Possible features of such a scenario could include: aggressive energy efficiency and demand response measures implemented by LSEs and state government; federal government restrictions on gas use for electric generation; less congestion on the transmission system as there is reduced hydro generation and less movement of baseload coal; emergence of a lucrative market for CO2 sequestration; premium prices for renewables; higher value for generation that can firm intermittent renewables; nuclear power becomes a viable option; water supplies become a major siting factor for central power plants; volatile electricity and natural gas markets; WECC refocuses its effort from operating reliability to resource adequacy; the U.S. federal government establishes standards for resource adequacy and issues mandatory orders to generators to ship power to resource short areas in the interconnection.

- **Natural gas remains in short supply and expensive; coal, hydro, and wind generation are abundant.**

  Possible features of such a scenario: Pulverized coal plants and wind farms are built throughout the inland West with major redundant transmission to the West Coast, Las Vegas and Phoenix. Seasonal flows fill the transmission system out of the Northwest. The federal government causes major transmission construction by using a variety of existing powers (e.g., approval of reliability criteria, financial incentives in transmission tariffs, instructions to BPA and WAPA, designation of national interest transmission lines and pre-emption of states, and homeland security authorities). Significant excess transmission capacity is developed to provide system redundancy. Reliability criteria are tightened to account for multiple contingencies.

- **Long-distance transmission expansion becomes impossible** due to NIMBY, interstate disagreements, and industry unwillingness to invest (driven by cost recovery uncertainties, perceived siting difficulties, better returns on other investment opportunities, and desire to block competition in local markets).

  Possible features of such a scenario: Natural gas demand for near-load generation increases; federal government takes over transmission siting and cost

recovery including mandatory payments for transmission expansion (via tariff changes to cause unwilling parties to contribute to the cost of a line or a tax that is used to pay for new transmission).

As the federal government causes new transmission to be built through socialization of the cost of transmission and mandatory siting, generation developers and utilities view distant generation as more attractive and the demand for new transmission further increase while more cost-effective options, such as demand side actions and local generation, wane.

Appendix 2

State-Related Electricity Provisions from the Energy Policy Act of 2005

EPACT 2005	*Comment on state impact*
Reliability - Provides for a system of mandatory reliability standards to be developed and enforced by an Electric Reliability Organization (ERO) subject to FERC oversight. The ERO will have jurisdiction over all users, owners, and operators of the bulk power system, including public power systems and cooperatives. FERC will issue a final rule implementing the provision within 180 days of the date of enactment and will review applications from organizations seeking to serve as the ERO thereafter. Enables deference to interconnection-wide organizations and standards. Authorizes Governors to create Regional Advisory Bodies. (§1211, adding FPA §215)	• With mandatory standards, states' latitude to reject cost recovery for expenditures to meet FERC-approved reliability standards restricted or eliminated because of the filed rate doctrine • Governors can create Regional Advisory Bodies. If a RAB covers an entire interconnection, FERC can defer to the advice of the RAB. • FERC will have the ability to ask the RAB to assume other responsibilities.
Siting Authority - Requires DOE to designate "national interest electric transmission corridors" in areas with capacity constraints or congestion. Allows FERC to authorize transmission projects in those corridors if a State cannot or does not authorize a project within one year or authorizes a project subject to unreasonable conditions. FERC authorization grants the permit holder authority to exercise eminent domain to acquire right of way. (§1221, adding FPA §216)	• DOE must consult with any Regional Advisory Body that is created. • Concern about sham and incomplete transmission expansion applications to states to start clock running for pre-emption in 365 days. • Concern with defining "unreasonable conditions."
Designation of corridors on federal lands: Within 2 years federal agencies are to designate energy corridors on federal lands in the 11 Western states **(**§368(a))	• States should provide input to insure that the federally-designated corridors line up with the needs identified in regional transmission plans.
Federal Utility Participation in Transmission Organizations – Authorizes the TVA, BPA, and the PMAs to join "Transmission Organizations" including RTOs, ISOs, or other FERC-approved transmission organizations. (§1232)	• Removes legal question about ability of BPA, and WAPA joining RTOs.
WAPA and BPA Transmission Construction – authorizes PMAs to upgrade or build new facilities with third party financing (§1222)	• WAPA/BPA may become the major constructors of transmission in the West. PMAs are exempt from state permitting requirements and have eminent domain authority so states may be bypassed.
Transmission Incentives - Requires FERC to establish incentive-based transmission rate policies to attract capital investment and allow recovery for compliance with reliability requirements. (§1241,	• Could spur new transmission construction but it may not be the transmission that is most needed. • .Must address cost allocation and

EPACT 2005	*Comment on state impact*
adding FPA §219). Also directs FERC to encourage deployment of advanced transmission technologies. (§1223)	recovery issues in FERC rulemakings and proceedings • Could dovetail with efforts of some states (e.g., CA) to introduce new transmission technologies
Participant Funding – Authorizes FERC to approve participant funding plans, without requiring participation in an RTO or ISO. (§1242)	• • Provides states an opportunity to argue before FERC for appropriate cost sharing mechanisms for new transmission or upgrades caused by new generators.
Native Load Protection - Entitles load serving entities to use transmission facilities and transmission contract rights to meet service obligations to native load customers before transmission capacity is made available to other parties. (§1233, adding FPA §217). Prohibits FERC from requiring any entity located in the Pacific Northwest that holds firm transmission rights to convert those to tradable or financial rights. (§1235, adding FPA §218).	• Protects existing transmission rights for native load. • Prevents implementation of a mandatory financial rights only system.
"FERC Lite" - Authorizes FERC to subject transmission-owing public power systems and cooperatives to certain open access transmission requirements. (§1231, adding FPA §211A)	• Could lead to more uniform rules governing use of the transmission system since a large percentage of the transmission in the West is owned by non-FERC jurisdictional entities. May simplify operation of transmission jointly owned by IOUs and public power and may enable future jointly-owned projects.
PUHCA Repeal - Repeals the Public Utility Holding Company Act, effective six months from the date of enactment. Grants FERC and state regulators expanded authority to access books and records of utility affiliates for purposes of utility rate regulation. (§§1261-1277)	• Could spur merger mania or purchase of utilities by non-utilities (e.g., banks, investment firms, and oil companies) with attendant work load on PUCs • Gives states a window of six months to strengthen state legislation concerning 1) access to books and records of affiliates and 2) ring-fencing of utility activity from other corporate endeavors.
Merger Review - Authorizes FERC review of holding company mergers. Requires FERC to expedite review of merger applications and provides that applications not acted upon within maximum of 360 days will be deemed granted. (§1289, amending FPA §203)	• Does not change the dual jurisdiction of FERC and states over electric utility mergers
Economic Dispatch - Requires FERC to establish joint boards, consisting of state and FERC representatives on a regional basis to consider economic	• Could be major regional initiative. The Western Interconnection would be the appropriate

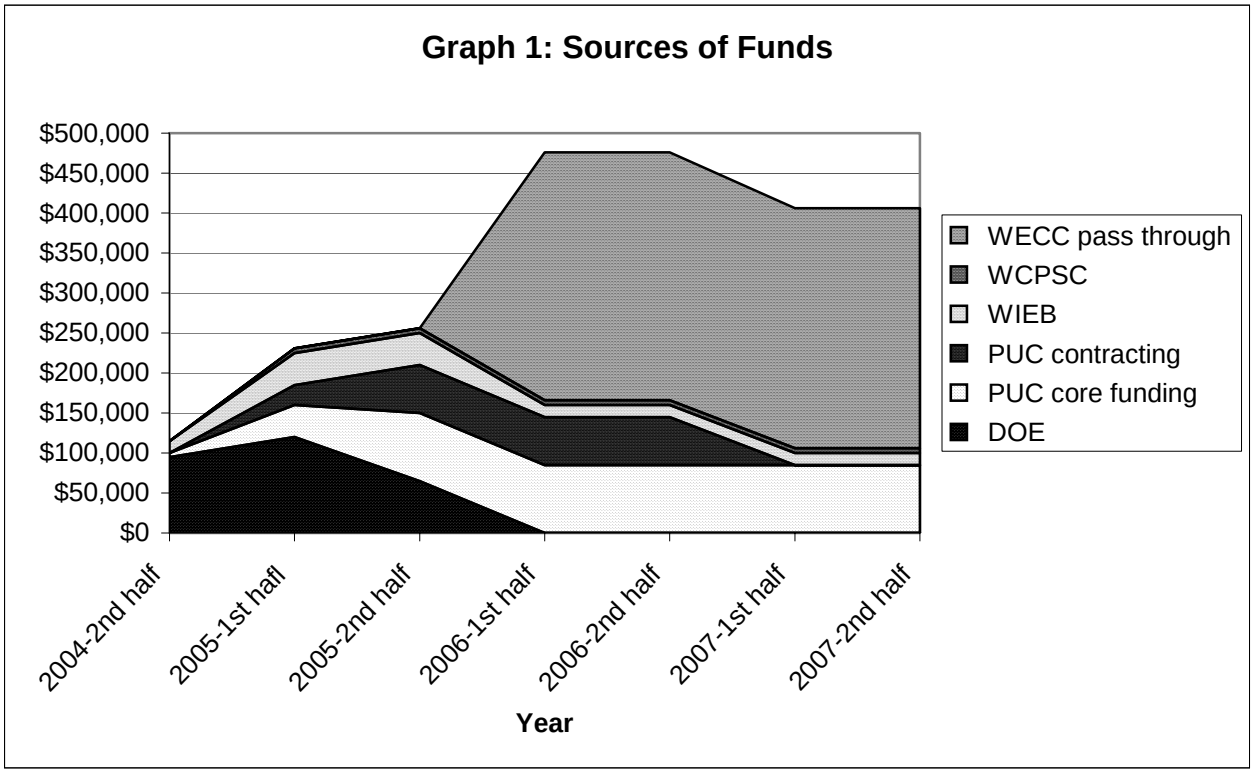
EPACT 2005	*Comment on state impact*
dispatch. FERC must report to Congress within one-year on the recommendation of the joint boards. (§1298, adding FPA §223.) DOE to conduct a study on economic dispatch and report to Congress within 90 days of enactment and to update the study annually. (§1832)	geography for such a joint board.
Market Manipulation - Prohibits filing false information and "any manipulation or deceptive device or contrivance… in contravention of such rules and regulations as the Commission may prescribe." (§§1282 & 1283, adding FPA §§221 & 222)	
Market Transparency - Authorizes FERC to issue rules on price transparency and access of information in electric sales markets and to enter into a Memorandum of Understanding with the Commodity Futures Exchange Commission (CFTC) relating to information sharing. Allows FERC to issue rules establishing publicly accessible electronic system on wholesale sales and transmission data. (§1281, adding FPA §220) **Cramming and Slamming** - Authorizes FTC to issue rules on retail marketing techniques referred to as "cramming" and "slamming." (§1287) • **Civil and Criminal Penalties** - Increases civil penalties for violations of the FPA to $1,000,000 per day and extends civil penalty sanctions to any violation of Part II of the Federal Power Act or any related FERC rules or orders. Also increases criminal penalties. (§1284, amending FPA §§316 & 316A) • **Sanctions for Market Manipulation** - Permits FERC to seek injunctions prohibiting persons or corporations found to have engaged in energy market manipulation from engaging in transactions subject to FERC's jurisdiction. (§1288, amending FPA §314) • **Refund Authority** - Authorizes FERC to provide refund remedies from the date a complaint is filed. Allows FERC to order refunds from certain large public power systems for "short-term" wholesale sales made in violation of FERC rules. (§1286, amending FPA §206) • **"Relief for Extraordinary Violations"** - Provides FERC with exclusive jurisdiction to determine if termination payments required in certain contracts entered into in the Western Interconnection are just and reasonable and in the public interest. (§1290)	• Consistent with CREPC's West-wide market monitoring efforts, regional initiative in these rulemakings to make as much useful market data publicly available as possible in a timely fashion • For Western states with retail access, ensure that FTC efforts are consistent with state rules and policies. • Gives FERC meaningful penalties. • Enhances quick FERC action if problems arise • Improves FERC's remedial actions. • Allows FERC to pre-empt U.S. Bankruptcy Court in contractual termination payments (applicable to Snohomish PUD, Sierra Pacific, and Nevada Power).
PURPA: Qualifying Facilities - Eliminates limitations on utility ownership of QFs. Eliminates, prospectively, the PURPA "must buy" requirement where the qualifying facility (QF) has access to competitive wholesale markets. Prospectively eliminates "must sell"	• Participation in FERC utility-by-utility proceedings to grant relief from mandatory purchase provision • Evaluate the state impact of

EPACT 2005	*Comment on state impact*
obligation where QF has the ability to purchase from another seller and state law does not impose an obligation to serve. Requires FERC to revise the criteria for qualifying cogenerators. (§1253)	removing QFs from utility resource mix and putting them in the wholesale market • Utility affiliate ownership issues
PURPA: State Proceedings - Requires State commissions and nonregulated utilities to conduct proceedings to consider adoption of new Federal standards on net metering, fuel diversity, fossil fuel plant efficiency, smart metering and demand response, and interconnection. (§§1251, 1252, & 1254)	• Within 3 years PUCs to complete consideration of net metering, fuel diversity, fossil energy generation efficiency, smart metering and demand response, and interconnection (unless the PUC already has a standard or has met the standard in another way (e.g., tariffs) or the legislature has voted on a standard). • Consider using NARUC Model Agreement and Procedures for interconnection of distributed resources
Energy Efficient Electric and Natural Gas Utilities Study mandated: Section 139 of the bill calls for DOE to conduct a study of state and regional policies to promote cost-effective energy efficiency programs. DOE is required to consult with NASEO and NARUC in the development of this study, which is to be completed within 1 year of enactment of the bill. NASEO, NARUC and the Alliance have already initiated discussions regarding this provision.	• Consider providing Western regional input to this study through CREPC
Natural gas distribution lines (Section 1326)(placed into service between 4/11/04 and 1/1/11) and electric transmission and distribution facilities can now be depreciated over 15 years, rather than the existing 20 years (Section 1308). Also in the electric transmission area, sales of property through 2007 would have recognition of gains spread out over 8 years (this is intended to facilitate transfers of property to an independent transmission company)(Section 1305).	• Revise state statutes or commission rules and policies on depreciation and amortization • Recognize these rates in rate case and other commission filings
LNG. Gives FERC exclusive jurisdiction over siting and operation of LNG facilities. Act does not affect state authorities under CZMA, CAA, FWPCA. Sets roles for states in consultation and inspection (Section 311)	
Authorized FERC to approve natural gas storage facilities even when the company cannot demonstrate it lacks market power (Section 312)	• Assess regional impact of new storage facilities on Western electricity and gas markets
Tax Incentives/loan guarantees. Bill includes extension of the Production Tax Credit, new incentives for solar, coal and nuclear.	• Check regulatory policies for consistency with incentives

Appendix 3

Sources of Revenues Assumed in CREPC's November 2004 Report to Western Governors

The following graph shows the hypothetical revenues assumed in CREPC's November 2004 report to Western Governors. Full text of the report to the Governors can be found at http://www.westgov.org/wieb/electric/mse/11-16EREFfnlrev.pdf



Appendix 4

Historical Sources of Financial Support of CREPC's Work

The following graph shows support for Western electricity activities over the past 11 years. This includes outside contributions, such as those from Lawrence Berkeley Lab. The accounting periods for the LBL contribution and the other figures do not exactly coincide. Annual funding for state travel during this period ranged from $4,000 to $34,000. The travel funds are not broken out on the chart.