

Options Paper on Financing an Enhanced Regional Electricity Function 10/1/04

At their business meeting on June 20, Western Governors accepted CREPC's recommendations to enhance the state/provincial regional electricity function in the Western Interconnection and directed the Committee to develop a plan for financing the recommended activities. Following is an excerpt from the CREPC recommendations:

- At this time, the West does not need the formality of an interstate compact, nor is there a need to transfer any state-level authority to a regional body. However, there is an urgent need to enhance the regional electricity function.
- This requires additional resources for states/provinces to act regionally to:
 - Ensure quality analysis of the adequacy of resources to meet demand;
 - Enable coordination among the states/provinces and the Federal Energy Regulatory Commission on monitoring Western electricity markets;
 - Enable active state participation to advance regional transmission planning and expansion and ensure Governors' policy objectives are addressed.
- To be successful, any enhanced regional electricity functions need the imprimatur of Western Governors.
- Initial budget estimates range from \$800,000 to \$900,000 and cover: a small core staff and operating budget (\$435,000); funds to contract out technical work (\$250,000); and state/provincial travel funds (\$150,000).
- Further support may be necessary to respond to possible federal energy legislation containing provisions on reliability or preemption of state transmission siting and permitting authority.
- If federal energy legislation is enacted to establish mandatory reliability standards and grant the Federal Energy Regulatory Commission the power to pre-empt state electric transmission siting laws, then additional action is needed.
 - Governors would need to create an interconnection-wide Regional Reliability Advisory Body.
 - Additional resources would be needed to participate in the federal government's identification and designation of "national interest" transmission lines where state permitting authority would be pre-empted.

See Attachment A for the text of the report to Governors and <http://www.westgov.org/wga/initiatives/energy/enhanced-electricity.pdf> for the text and attachments.

CREPC's recommendations were based on the assumption that the major portion of required work to enable a reliable and competitive wholesale electricity system in the Western Interconnection would be conducted by the Western Electricity Coordinating Council (WECC) and proposed RTOs collaborating under the umbrella of the Seams

Steering Group-Western Interconnection (SSG-WI).¹ This assumption may be wrong in the case of SSG-WI. SSG-WI has been unable to secure a budget from its members (California ISO, filing utilities for WestConnect, and filing utilities from Grid-West) to maintain the current minimal level of activity.² It does not appear that SSG-WI or the proposed RTOs will be capable of adequately implementing key functions such as interconnection-wide transmission planning and market monitoring.

We are concerned that the necessary institutional infrastructure to address the type of problems that occurred in the West in 2000-2001 is not in place. The table below compares the institutional capabilities in place in 2000 with those in place today.

Institutional Landscape

2000	End of 2004	Comments
Reliability Standards		
<ul style="list-style-type: none"> No mandatory standards WSCC contract-based Reliability Management System (RMS) covers all but ten control areas 	<ul style="list-style-type: none"> No mandatory standards WSCC RMS covers all but nine control areas 	<ul style="list-style-type: none"> No change between 2000 and 2004 except for the inclusion of some new standards No federal legal backstop to enforce reliability standards
Resource Adequacy		
<ul style="list-style-type: none"> WSCC peak load assessment 	<ul style="list-style-type: none"> WECC peak load assessment with sensitivity analysis 	<ul style="list-style-type: none"> No energy assessment (e.g., generation capabilities in drought) No extreme temperature assessment No documentation of WECC load forecasts No regional adequacy standards No state adequacy standards yet
Market Monitoring		
<ul style="list-style-type: none"> California ISO market monitor No FERC market monitor No price caps 	<ul style="list-style-type: none"> California ISO market monitor FERC Office of Market Oversight & Investigations (but w/o sufficient resources for detailed west-wide monitoring) 	<ul style="list-style-type: none"> No west-wide market monitor No monitoring of bi-lateral contracts (which are the vehicle for all power sales outside the CA ISO day-ahead and real-time markets)

¹ For example, WECC’s budget is approximately \$13 million annually.

² SSG-WI has primarily relied on volunteers to conduct its work in market monitoring, transmission planning, common system interface coordination, congestion management, and price reciprocity. A major product of SSG-WI has been in the planning area where PacifiCorp has provided the greatest in-kind contribution.

2000	End of 2004	Comments
	<ul style="list-style-type: none"> No price caps (?) 	
Transmission Planning and Expansion		
<ul style="list-style-type: none"> WECC planning process activated in response to a proposed project 	<ul style="list-style-type: none"> WECC planning process activated in response to a proposed project 2003 SSG-WI high-level view of transmission needs under “bookend” generation scenarios RMATS phase I recommendations STEP review of transmission expansion needs between Palo Verde and CA New sub-regional planning processes started by NTAC and SWAT 	<ul style="list-style-type: none"> No integration of sub-regional planning efforts No transmission plan based on a “realistic” interconnection-wide load and generation scenario No new mechanism to share costs of new transmission
Regional Institutions		
<ul style="list-style-type: none"> WSCC (reliability only) CREPC (info sharing) 	<ul style="list-style-type: none"> WECC (reliability only) CREPC (info sharing) SSG-WI 	<ul style="list-style-type: none"> New WECC Board but no significant change in functions No change in CREPC function or capabilities SSG-WI has no staff, almost no budget and is on verge of collapse
LSE Integrated Resource Plans		
<ul style="list-style-type: none"> Integrated resource planning moribund in most parts of West 	<ul style="list-style-type: none"> New set of IRPs by IOUs in WA, ID, MT, OR, WY, UT, NV, CO, BC CA IOUs required to submit plans and allowed to acquire resources 	<ul style="list-style-type: none"> No interconnection-wide examination of how adequate the system is if loads and resources in IRPs are aggregated Load and resource plans by most public power LSEs and LSEs in NM, AZ, AB are unknown

In Vancouver, CREPC will need to agree on a recommendation to Western Governors on financing an enhanced state/provincial regional electricity function. We believe that CREPC’s financing recommendation should also explain to Governors the status of industry actions to address critical interconnection needs.

Also on October 21 in Vancouver, CREPC will host a public meeting to solicit feedback from stakeholders on the recommendations accepted by the Governors and a proposal to finance an enhanced regional electricity function.

CREPC's recommendations for financing an enhanced state/provincial regional electricity function will be presented for gubernatorial action at the Western Governors' Association's winter meeting in early December.

Financing Options

There are at least seven possible options for financing an enhanced regional electricity function:

1. State and provincial general fund appropriations.
This option involves securing new appropriations from state/provincial legislatures and could be included in a PUC or energy agency budget.
2. Redirect or increase existing PUC contributions to support a Western enhanced regional electricity function.
This option includes redirecting existing PUC funds for multi-state electricity issues to a Western enhanced regional electricity function. This would be a decision under the control of each PUC. This option also includes new PUC monies.
3. Pass-through funds from control areas (and ultimately consumers) via the Western Electricity Coordinating Council.
This option involves increasing revenue collected by WECC and passing through the increased revenues to the state/provincial regional electricity function. This is the mechanism contemplated in pending federal reliability legislation for funding Regional Advisory Bodies.
4. Joint PUC contracting funds to address specific regional issues.
PUCs typically have funds available for outside contractors to address specific issues. PUCs could collaborate in the hiring of a contractor to address a particular need.
5. A grant from the proposed and existing regional grid management organizations in the Western Interconnection (i.e., California ISO, Alberta Electric System Operators, Grid West, WestConnect, SSG-WI)
This option involves a grant from SSG-WI and/or each proposed RTO. Such funds would come from users of the California ISO and Alberta grids and the WestConnect and Grid-West "filing utilities."
6. A grant from the U.S. Department of Energy.
This has been the predominant source of funds for CREPC's work over the past year. DOE has been willing to support CREPC's work in the Western Interconnection through 18-month grants that expire in early 2005. DOE's support for CREPC will change as agency priorities and funding change.
7. A FERC approved-wires charge added to transmission tariffs.

This option would require FERC to add a wires charge to existing transmission tariffs in the Western Interconnection and pass through funds to an enhanced state/provincial regional electricity function. It is unclear if FERC has the authority to do so.

8. Use of contractors funded by FERC or DOE to conduct work needed by states/provinces to support an enhanced regional electricity function.

This is the model under which DOE's Lawrence Berkeley Laboratory has been providing assistance to CREPC in the past year on demand response, market monitoring, LSE IRPs, and resource adequacy.

9. Form an industry advisory committee that requires contributions to participate.

This model has been used to fund electricity activities of the Southern States' Energy Board.

Discussion of Options

One issue affecting the recommendation of revenue options is whether funds from a source would be limited to any of the five topical areas identified by CREPC: reliability, resource adequacy, market monitoring, transmission planning and expansion, and transmission permitting.

1. State Appropriations: In many states, general fund appropriations are used to support regional institutions, such as the Western Governors' Association and the Western Interstate Energy Board. However, given the current state of revenues in most states and provinces, it would be difficult to secure additional support from state and provincial general funds. General funds would be desirable because there would be no limitation on activities that could be financed with such monies.

2. Redirect/Increase PUC Funds: Presently, most of the state PUCs in the Western Interconnection are financed by fees.³ From these funds, PUCs help fund multi-state electricity activities nationwide. Existing PUC funds could be redirected to an enhanced regional electricity function or new monies could be raised. Like general fund appropriations, the advantage of funding an enhanced regional electricity function from such PUC revenues is that the funds could be used for any or all of the five regional functions. The disadvantage is that the burden of such fees would fall only on PUC-jurisdictional entities. Other beneficiaries of enhanced regional electricity functions, such as public power, independent power producers, and marketers, would not directly contribute. Another disadvantage is the potential free rider problem if a state/province does not contribute.

3. Joint PUC Contracting Funds: Presently PUCs have funds available for outside contractors to address specific issues. These funds could be coordinated and aggregated to address a regional electric power issue.(e.g., hiring of a contractor to help develop a

³ The Arizona Corporation Commission and the New Mexico Public Regulation Commission are financed by general fund appropriations.

West-wide market monitor). Such funds could be useful in addressing one-time issues, but would not be considered a source of funds to sustain an enhanced state/provincial electricity function to address the broad range of regional issues. The advantage is that the hiring of expert outside consultants is a regular practice and PUC budgets typically include funds for such contracting. The disadvantage is that multiple PUCs would have to negotiate their share of a contract and there can be freeriders.

4. Pass-through of Funds Via WECC: The Western Electricity Coordinating Council is primarily financed by a fee assessed on control areas determined by the control area's annual net energy for load relative to net energy for load within the Western Interconnection. Participation in WECC and payment of the fee is voluntary. At present all control areas, except Avista, contribute to WECC. WECC could collect a surcharge on its fees and pass through the revenues to a state/provincial enhanced regional electricity function. The advantage of this approach is that the cost would be borne by nearly all users of the Western electricity system. In addition, the collection system is already in place and would continue if federal reliability legislation is enacted. The disadvantage is that it is likely that the funds from such a grant could only be used for activities within the scope of WECC.

5. Grant from Proposed RTOs/SSG-WI: The four existing or proposed regional grid management institutions (California ISO, Grid West (aka RTO West), WestConnect and the Alberta Electric System Operator) could individually or through SSG-WI provide a grant. The advantage of this option is that many of the users of the grid would contribute and the funds could be used for activities beyond those conducted by WECC (e.g., market monitoring, transmission permitting). The major disadvantage is that two of the four entities, Grid West and WestConnect, do not presently exist. Activities by these entities, including participation in the Seams Steering Group-Western Interconnection, are dependent on the willingness of "filing utilities" to provide funds. The filing utilities do not include all entities within the geographic footprint of Grid West and WestConnect. Additionally, SSG-WI has difficulty in securing funds from Grid West, WestConnect and the California ISO to finance its current activities⁴. SSG-WI is not a legal entity and has no staff. Similarly, WestConnect and Grid West are not legal entities and have no staff.

6. Grant from U.S. Department of Energy: Many recent activities of CREPC have been made possible by three grants from the U.S. Department of Energy, one for exploring the value of a multi-state electricity entity and two for work on transmission to enable increased wind generation. Two of these grants expire in March 2005; the third expires in 2006. In addition, DOE has provided CREPC with in-kind support from Lawrence Berkeley Laboratory. Grants from the Department of Energy have been extremely helpful in addressing regional electricity issues. However, agency priorities

⁴ For example, SSG-WI was unable to pay for printing of copies of the October 2003 SSG-WI transmission planning report, because the California ISO and WestConnect filing utilities were not willing to contribute to the cost. More recently, SSG-WI temporarily stopped funding the consultant facilitating SSG-WI's work on market monitoring.

can change rapidly and heavy reliance on DOE grants does not meet CREPC's recommendation for a sustained source of funding.

7. FERC approved wires charge: A wires charge added to all transmission tariffs in the Western Interconnection that are filed with FERC could be a source of revenue. This option requires further investigation and may not be feasible under current law. In addition, it is not clear how this option would apply to transmission owners and others not under FERC jurisdiction. The advantage of this option is that such revenues may be able to support all enhanced regional electric power functions. The disadvantage may be that it cannot be implemented under current law.

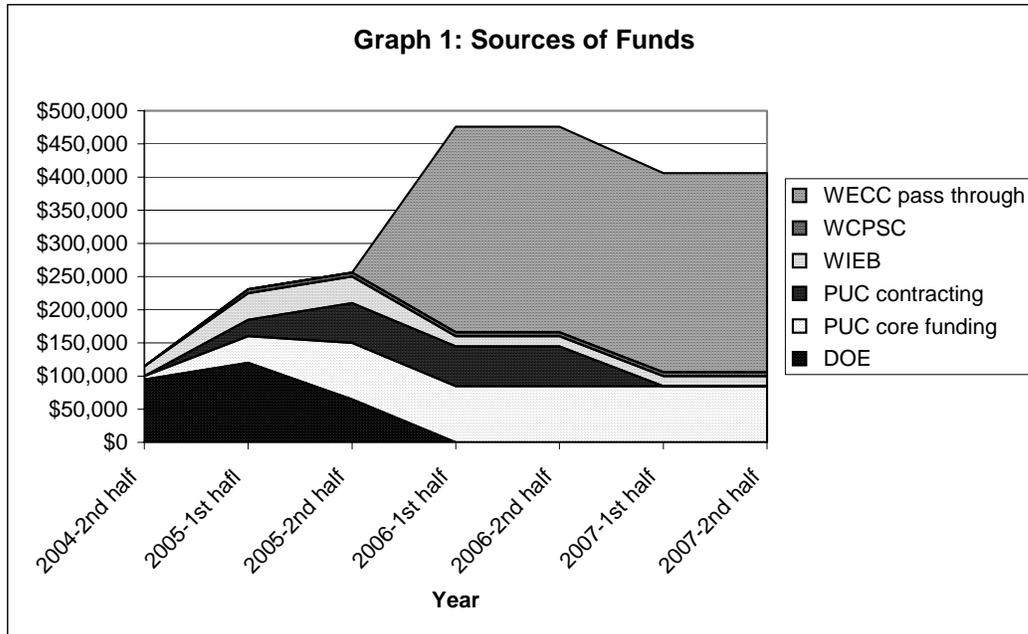
8. FERC or DOE contractors: In the past year, DOE has provided the services of Lawrence Berkeley Laboratory to research issues of interest to CREPC. LBL is spending about \$250,000 annually on this effort. A number of CREPC members from states have also signed confidentiality agreements with FERC that allows FERC's Office of Market Oversight and Investigations to share general information on market performance. A Western enhanced regional electricity function could expand its reliance on DOE and FERC contractors to address issues important to the West.

9. Industry advisory group to CREPC: This option, which is analogous to what the Southern States' Energy Board has done, would accept contributions from companies in the electric power industry in exchange for being named as members of an advisory committee. This option has the advantage of generating revenues that can be spent on any of the CREPC priorities. The disadvantage is that it may leave the impression of preferential access to regulators by companies that pay to become members of the advisory committee.

Recommended Option

It is proposed that the enhanced regional electricity function be financed by several sources of revenue. Over a two-year period, the mix of resources would shift from reliance on grants and federal government contractors to more sustainable funding by the users of the grid. Graph 1 shows the recommended phase-in of different sources of funds over the next two years. It is noteworthy that unlike other regions (e.g., Midwest, Northeast), this proposal provides no contribution to an enhanced regional electricity function by RTOs or the Seams Steering Group-Western Interconnection.⁵ If funds are not available from the sources shown, grants from DOE could be pursued to help bridge the gap until the proposed revenue sources are in place.

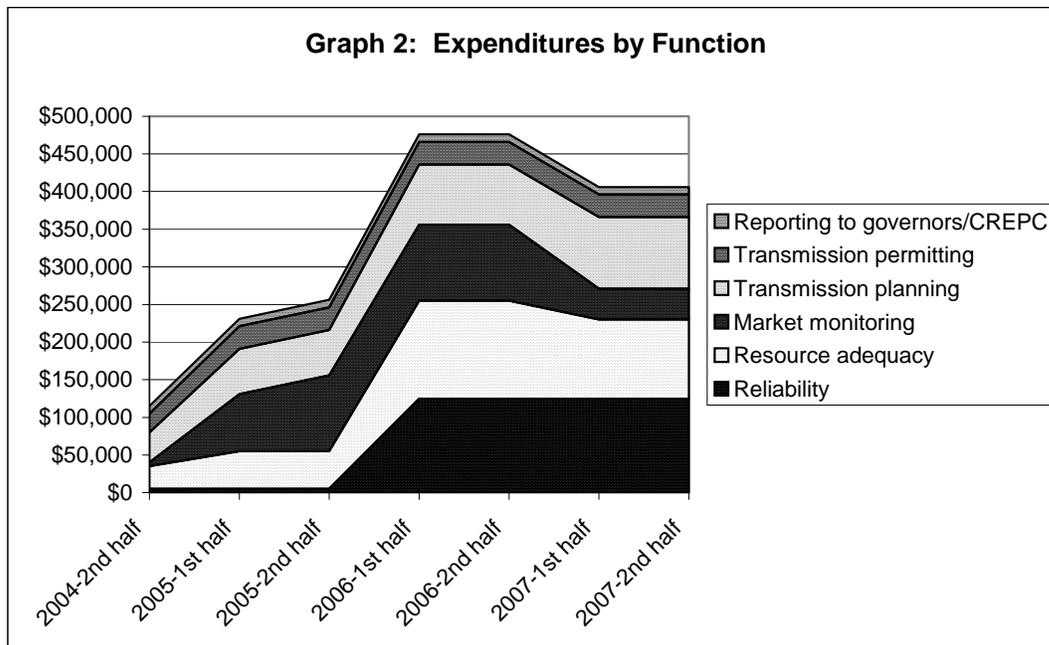
⁵ At present, RTO-like organizations only exist in California and Alberta. Additionally, SSG-WI has been unable to finance even its minimal on-going activities because many of the "filing utilities" and the California ISO are reluctant to continue to make financial commitments to SSG-WI. Some companies are beginning to consider a replacement for SSG-WI that would address commercial issues and include broader participation by companies than SSG-WI.



By comparison, the budget adopted for the Organization of MISO States for the first six months of operation was \$500,000.

Graph 2 illustrates a proposed allocation of expenditures in six areas:

1. Reliability
2. Resource adequacy
3. Market monitoring
4. Transmission planning and expansion
5. Transmission permitting
6. Reporting to Governors and CREPC



The distribution of estimated expenditures among the activities and sources of revenue are based on the following:

- Reliability activities will be minimal until 2006 when WECC would have in place a pass-through mechanism. Until then, state/provincial participation in reliability activities will be limited to participation of Class 5 representatives on the WECC Board and the occasional state/provincial participant in a WECC committee meeting. Beginning in 2006, state/provincial participation in WECC committees would be substantially increased.
- Resource adequacy work will steadily increase from \$50,000 in six months in 2005 to an annual total of \$250,000 in 2006 before dropping to a sustained funding level of \$100,000 annually. This expenditure trajectory assumes a more aggressive role for states/provinces in addressing resource adequacy issues. Once an acceptable and tested approach to measuring resource adequacy is in place in 2006, the level of activity on this topic would decline to a monitoring level. Revenue for this activity initially would come from a DOE grant, with core PUC funding and the Western Conference of Public Service Commissioners contributing in 2005. In 2006, all resource adequacy work would be funded via WECC pass-through funds.
- Market monitoring activity in 2005 and 2006 would significantly increase as a west-wide market monitor is designed and implemented. Sustaining funding for activities of a west-wide market monitor (costing an estimated \$5-\$10 million annually) would come from company subscriptions, per the pending SSG-WI proposal. The funds shown in the graph are to enable states/provinces to participate effectively in the development of the west-wide monitor and, beginning in 2007, review the monitor's findings. Revenue for this function would initially come from a grant from DOE, core PUC funds, the Western Conference and PUC contract funds. The contract funds would be used to hire an expert consultant to assist states/provinces in the design of the market monitor. The PUC contract funds would be phased out at the end of 2006.
- Transmission planning and expansion expenditures would grow over the period shown in the chart on the assumption that this activity will become increasingly important as the need for new generation resources becomes apparent. Note, however, that like all expenditures in the graphs, we presume the heavy lifting on transmission planning will continue to be done by industry through sub-regional transmission planning efforts and some type of interconnection-wide planning effort as a follow-on to SSG-WI's work. Over time, grants from DOE and WIEB funding would be supplanted by core PUC funding and WECC pass-through funds, under the presumption that by 2006 WECC will be conducting transmission expansion planning. If WECC is prohibited from doing transmission expansion planning, then funds would need to come from a successor to SSG-WI.

- Permitting expenditures would initially come from a grant from DOE and WIEB, but over time the DOE contribution would be picked up by core PUC funding.
- \$20,000 per year is allocated for reporting to Western Governors and CREPC. These funds would cover the bi-annual CREPC meetings and bi-annual reports to governors. The cost would be split between PUC core funding and WIEB.

ATTACHMENT A

June 2004 Report to Western Governors (less appendix)

**Report to Western Governors on an
Enhanced Regional Electricity Function
in the Western Interconnection
June 2004**

The causes and economic consequences of the 2000-2001 Western electricity crisis that began in California and rippled across the entire Western Interconnection are well-understood. The necessary steps to avoid a future crisis, however, are not in place. The Western industry is deeply divided about the value of Regional Transmission Organizations and the appropriate role of the only existing grid-wide institution, the voluntary Western Electricity Coordinating Council. Many are skeptical about the wisdom and feasibility of remedies advocated by the Federal Energy Regulatory Commission.

Since the crisis, Western governors have been the only effective unifying force for improving the operation of our interconnected Western electricity grid. Western governors provided the catalyst for improvements in transmission planning and permitting. They have recommended actions to protect the reliability of the grid and improve the assessment of the adequacy of resources to meet demand.

However, the bridge to a reliable and economic Western electricity system is fragile and in need of continuing gubernatorial attention. The next step in strengthening the Western electricity system requires an enhanced state and provincial regional electricity function that can help implement the governors' direction through sound analysis and active participation in grid management issues. In its current form, the existing Committee on Regional Electric Power Cooperation of the Western Interstate Energy Board's⁶ is not capable of providing the necessary level of analysis and participation.

In December 2002, Western governors directed that the concept of an enhanced state/provincial regional electricity function be explored. In the fall and winter of 2003-2004, the Committee on Regional Electric Power Cooperation undertook a bottom-up evaluation of the value of an enhanced regional electricity function in five critical areas:

⁶ The Western Interstate Energy Board includes all the states and provinces in the Western Interconnection. Its members are appointed by the governor or premier. Its legal basis is an interstate compact. The Board serves as the technical energy arm of the Western Governors' Association. The Board's Committee on Regional Electric Power Cooperation is comprised of interested state and provincial utility regulatory commissions, governors' energy agencies and facility siting agencies in the Western Interconnection. The Committee was established in 1984 and is a valuable forum for sharing information on issues affecting the Western grid. The Committee rarely adopts positions on issues. When it does it acts by unanimous agreement.

- Reliability;
- Resource adequacy;
- Market monitoring;
- Transmission planning and expansion; and
- Transmission permitting.

In March, the Committee consolidated the findings from work groups in each of the five areas into recommendations to Western governors. In brief, the Committee found:

- Continued progress in pro-active transmission planning is contingent on the voluntary efforts of a few companies and regular engagement of Governors; pro-active planning has not become routine.
- The WGA Transmission Permitting Protocol appears adequate for coordinating permitting reviews of proposed interstate transmission lines, but has not yet been tested because no new interstate transmission line has been proposed since the Protocol was signed in 2002.
- At this time, the West does not need the formality of an interstate compact, nor is there a need to transfer any state-level authority to a regional body.
- However, there is an urgent need to enhance the regional electricity function.
 - This requires additional resources for states/provinces to act regionally to:
 - Ensure quality analysis of the adequacy of resources to meet demand;
 - Enable coordination among the states/provinces and the Federal Energy Regulatory Commission on monitoring Western electricity markets;
 - Enable active state participation to advance regional transmission planning and expansion and ensure Governors' policy objectives are addressed.
 - To be successful, any enhanced regional electricity functions need the imprimatur of Western Governors.
 - Governors should establish a task force to examine options for sustainable funding of regional electricity functions.
 - Initial budget estimates range from \$800,000 to \$900,000 and cover: a small core staff and operating budget (\$435,000); funds to contract out technical work (\$250,000); and state/provincial travel funds (\$150,000). Further support may be necessary to respond to possible federal energy legislation containing provisions on reliability or preemption of state transmission siting and permitting authority. By comparison, the initial budget for an analogous group established in 2003 in the Midwest called the Organization of Midwest Independent System Operator States is slightly less than \$1 million per year.

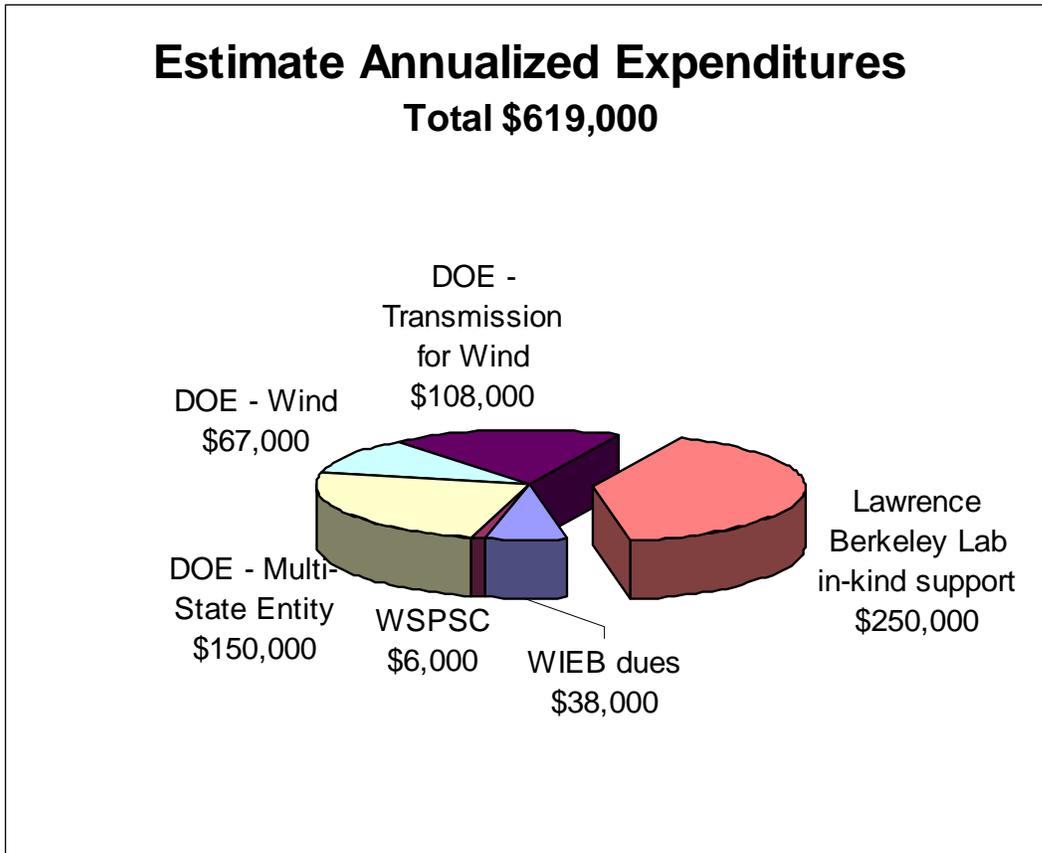
- If federal energy legislation is enacted to establish mandatory reliability standards and grant the Federal Energy Regulatory Commission the power to pre-empt state electric transmission siting laws, then additional action is needed.
 - Governors would need to create an interconnection-wide Regional Reliability Advisory Body.
 - Additional resources would be needed to participate in the federal government's identification and designation of "national interest" transmission lines where state permitting authority would be pre-empted.

The Committee recommends that the Governors (1) accept the recommendations, (2) direct that a process be established to solicit stakeholder input on the recommendations, and (3) take action on the recommendations at the WGA 2004 winter meeting.

Absent political leadership of Western Governors backed by improved analysis and greater participation by state and provincial agencies, the West will not be prepared to deal with a future Western electricity crisis. That failure will set the stage for federally-imposed solutions that may not meet the needs of the region.

Recent Level of Effort on Regional Electric Power Issue

Over the past year or so, CREPC's work on regional electricity issues has benefited from three grants from DOE and in-kind support from DOE's Lawrence Berkeley Laboratory. These grants started at different times during the year. The graph below shows the estimated annualized level of support for CREPC-related activities. Below the graph is a short description of the activities under the three grants and the support from LBL.



Transmission for wind grant: WIEB was the recipient of a \$125,000 transmission-for-wind grant from DOE through the Wyoming Energy Office. It is estimated that the annualized expenditure under this grant is about \$108,000. The bulk of the work has been spent supporting the Rocky Mountain Area Transmission Study, including a \$37,000 contribution to the cost of a project facilitator. Funds have also been used to support CREPC's participation in SSG-WI transmission planning activities.

Wind grant: WIEB was the recipient of a three-year grant to share information among states on wind-related developments. Estimated expenditures on an annualized basis are \$67,000. Much of the work under the grant relates to transmission activities, including

transmission barriers to wind development (e.g. discriminatory control area practices, development of a “conditionally firm” transmission product) and development of the National Wind Coordinating Committee’s annual western transmission workshop.

Multi-State Entity grant: This \$275,000 grant from DOE has provided funds to support the development of CREPC’s recommendations for an enhanced regional electricity function and much of the staff participation in related activities, such as the WRAT’s work on resource adequacy, transmission permitting under the WGA transmission permitting protocol, market monitoring, and WECC activities. It is anticipated that the \$50,000 in consultant funds under this agreement will support resource adequacy work. On an annual basis this grant has provided \$150,000 of support.

Western Conference of Public Service Commissioners: Over the years, the Western Conference has provided \$12,000 in support for CREPC. Last fiscal year no funds were provided. The annualized level of support shown in the chart is \$6,000.

WIEB dues: In the past year, WIEB dues (and meeting registration fees) contributed \$38,000 to CREPC’s work. This is lower than in past years due to the availability of funds from DOE grants.

LBL in-kind support: In the past year, DOE has funded Lawrence Berkeley Lab to assist CREPC on regional electricity issues, including market monitoring, resource adequacy, LSE integrated resource plans, and a public database for transmission planning and resource adequacy assessments. On an annualized basis, it is estimated that LBL’s in-kind contribution is about \$250,000.

Not reflected in the table are:

- The in-kind contribution of the California Energy Commission to the natural gas adequacy modeling that will be input into electricity resource adequacy determinations; and
- In-kind contributions of states/provinces on the issues above, Grid West development and WECC-related issues.