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Dear Messrs. Wright and Cassidy:

On September 30, I spoke at the public hearing in Portland on the "Regional Dialogue on Post-2006 Power Sales Contracts." This letter is an extension of those remarks.

I support the "Public Interest Proposal" submitted jointly by the Northwest Energy Coalition, Renewable Northwest Project, Sierra Club, Natural Resources Defense Council, Citizens' Utility Board of Oregon, and Climate Solutions. Indeed, I have been the Sierra Club's representative in the continuing meetings of those groups, the state energy offices and the region's utilities concerning conservation and renewable energy development, which have been monitored by staff from both BPA and the Council.

My public testimony and this letter, however, are my personal statements and are not on behalf of the Sierra Club or other groups participating in this process. The statement below is not intended to cover all important issues completely, and necessarily leaves out emphasis and detail on many key areas, and naturally leans toward my experience in power, conservation and renewable energy issues. I offer these observations as my view of issues that have central importance for long-term regional energy planning.

1. The Continuing Importance of the 1980 Regional Power Act

My views are based on over 20 years of participation in BPA and Planning Council public involvement processes, beginning with the scoping hearings BPA held following passage of the Northwest Regional Power Act in early 1981, as well as the earliest phases of the Planning Council's first regional power plan issued in 1983.

The 1980 law stands as a continuing monument to appropriate planning and program management for energy and natural resource systems. Like any legislation it has flaws, but it pleases me today, upon rereading major sections of the Regional Act, that it combines very thorough and comprehensive planning and management criteria, well suited to our river-based electric energy system and respectful of the region's institutions, values and citizens.

This is a good time to reflect on the lessons that we have learned from implementing that law, and the challenge it continues to put before us.

The very first thing to say about the planning process we are now engaged in, the "long term regional dialogue" concerning management of the regional electric energy system from 2006 onward, is that the time is overdue to put the Regional Act back into the center spotlight of our thinking.

Electricity in its Environmental Context. The Act has four main features, among many, that deserve attention. The first is that it places energy production and use fully within its environmental context. The most evident aspect of this is the mandate to consider fish and wildlife protection within the Columbia/Snake River basin on an equal footing with electricity production. But beyond that, a very important provision requires our regional planning to be based on total resource costs, including sufficient accounting for both quantifiable and non-quantifiable environmental costs and benefits. This is extended to the demand side as well as the supply side, not only in giving energy efficiency full standing as a resource, but in prioritizing rate structures (16 USC 839d(h)(5)), building codes and other model conservation standards (16 USC 839(b)(f)), and other features that conserve energy and make its use more efficient.

Any long term plan for this region must incorporate the full scope of the Act's requirement to integrate electric energy production and our environment.

Regional Scope for New Resources. The second important feature of the Regional Act is its comprehensive scope for new resource development. The Act covers all electric development in the region by providing that BPA customer utilities may place any new load upon the Administrator. No distinction in this regard is made between utilities that acquire all their electric energy and capacity from BPA, and those who acquire only a portion:

> Whenever requested, the Administrator shall offer to sell to each requesting public body and cooperative entitled to preference and priority under the Bonneville Project Act of 1937 (16 U.S.C. 832 et seq.) and to each requesting investor-owned utility electric power to meet the firm power load of such public body, cooperative or investor-owned utility in the Region to the extent that such firm power load exceeds -
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> (A) the capability of such entity's firm peaking and energy resources used in the year prior to December 5, 1980, to serve its firm load in the region, and

> (B) such other resources as such entity determines, pursuant to contracts under this chapter, will be used to serve its firm load in the region.
>
> 16 USC 839c(b)(1).

This signals the very clear intention by Congress to enact a truly *regional* power act, not merely one limited to the current scope of BPA's activities.

It is very important to keep this section in mind when evaluating the various proposals that have been placed before BPA and the Planning Council in this "long-term dialogue." This statutory provision establishes for a contingent liability on Bonneville for *all* future firm electric load in the Pacific Northwest. Note again that the Administrator *shall offer* power to *each requesting utility*, regardless of whether it presently has any particular contract with the BPA, or any contract at all.

Certainly, the expectation at the time the Act passed was that either the Administrator or the region's larger utilities would acquire all new resources within the scope of the Act's planning and resource development mandates. That expectation was good public policy then, and continues to be so today. New electric resource development in the Northwest, whether directly under the management of the Administrator or not, should be in concert with the Northwest Regional Power Act's goals and directives.

Integrated and Full-Accounting Regional Planning. The third important feature of the Act is the scope of the planning process. I won't go into this area in detail, but Congress delegated authority to an independent agency, the Northwest Power Planning Council, creating a unique state-federal partnership.

The Act lays out a comprehensive blueprint for the Council's planning activities, and I am pleased to observe that, just over 20 years after the Council's first meeting, the Northwest Power Planning Council has by and large carried out its mandate effectively and professionally, and in the process has contributed to a revolution in energy planning that continues to have worldwide benefits.

The total resource cost approach mandated by the Regional Act has served us well. This seeks to incorporate all relevant costs and benefits, including both quantifiable and nonquantifiable environmental effects, and establishes a clear cost-effectiveness method for ranking and prioritizing resource development. It is very important to retain this framework as we move forward.

The regional plan produced by the Northwest Power Planning Council is explicitly designed to provide guidance not only to BPA but to all regional entities:

> In the preparation, adoption, and implementation of the plan, the Council and

> the Administrator shall encourage the cooperation, participation, and assistance of appropriate Federal agencies, State entities, State political subdivisions, and Indian tribes.
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> 16 USC 839b(g)(3).

It is important to note, again, that the *regional* plan does not merely reflect electric energy resources and needs, but also includes a complete and detailed plan for protecting and enhancing fish and wildlife resources, given them equal weight with electricity production and use. While certainly not perfect, the Council is a testament both to wise statutory direction and responsible implementation by BPA and our four states.

Resource Priorities Based on Environmental and Economic Efficiency. The fourth fundamental element of the Regional Act is that it sets very clear priorities for future development of electric resources. It is worth recalling that this is not merely a monetary test. Resources must be evaluated in terms of environmental effects, whether induced or avoided, compatibility with the regional electric system, and direct impacts on fish and wildlife, especially flows and habitat essential to salmon and steelhead. This remarkable vision is encapsulated in federal law:

> (1) The plan shall, as provided in this paragraph, give priority to resources which the Council determines to be cost-effective. Priority shall be given: first, to conservation; second, to renewable resources; third, to generating resources utilizing waste heat or generating resources of high fuel conversion efficiency; and fourth, to all other resources.
> (2) The plan shall set forth a general scheme for implementing conservation measures and developing resources pursuant to section 839d of this title to reduce or meet the Administrator's obligations with due consideration by the Council for
> (A) environmental quality,
> (B) compatibility with the existing regional power system,
> (C) protection, mitigation, and enhancement of fish and wildlife and related spawning grounds and habitat, including sufficient quantities and qualities of flows for successful migration, survival, and propagation of anadromous fish, and
> (D) other criteria which may be set forth in the plan.
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> 16 USC 839b(e)(1) and (2).

2. The Regional Act After Two Decades: A Mixed Verdict

When President Franklin Roosevelt dedicated the Bonneville Dam on September 28, 1937, almost exactly 65 years ago, he accomplished a pledge that he made running for national office in 1932 to provide hydro power from the Columbia River for the widest possible use and benefit. This was not his idea originally, of course; it was the result of five decades of work and political fighting to determine whether and how hydroelectricity could be generated from the mighty Columbia River.

But FDR deserves credit for providing the leadership to make it happen. To a remarkable degree, the Regional Act encompasses and extends his vision, and corrects deficiencies in the original framework for BPA and the Federal Columbia River Power System, particularly concerning the environmental consequences of energy production and use. We have greatly improved our energy planning, but how well have we done with carrying our plans out?

Two major developments occurred after the passage of the 1980 Northwest Regional Power Act that could only have been dimly foreseen at the time.

The Failure of the Modern Rate Case. The first was the failure of the ratesetting provisions of the Act to achieve their goals. A series of increasingly complex, burdensome and contentious BPA rate cases ensued, which failed to solve the structural problems in BPA's rate designs.

To be fair, the Regional Act's rate mechanisms made this much more difficult. In retrospect, this must be viewed as a consequence of congressional micro-management where various preferences were built into the process to satisfy particular interests, rather than establishing a strong but flexible framework that could allow competing interests to bring their best cases forward and have the Administrator's final decisions be an acceptable balance of unavoidably complicated and expensive factors.

The failure of the rate case process went through many phases, each seeking to untangle the errors and omissions of the last. The very existence of this current "long term dialogue" is the consequence of the latest failure. The consumer and investor owned utility customers of BPA should be commended for looking beyond the next rate period to find a long-term approach that works better. And the utilities, BPA and the Planning Council can be commended for adhering to the principle that the Regional Act is the appropriate framework, and no further federal legislation is necessary. This is desirable for a variety of political reasons, but even beyond that, it is *necessary* because, as indicated above, the Act provides a durable framework to address regional electricity system management.

The Rise and Fall of Deregulation. A second unforeseen factor in 1980 and for some time thereafter was the rise of an era of deregulation, culminating in the passage of the Energy Policy

Act of 1992 and the subsequent casting aside of key regulatory protections by the Federal Energy Regulatory Commission. This would have had relatively little effect on our region, except for the FERC-approved California deregulation scheme, which overnight converted the Pacific Intertie connecting our regions from a mechanism for distributing seasonal diversity benefits to a method for a more economically and politically powerful region -- along with the federal regulators it simultaneously fought and demanded assistance from -- to shift some of the costs of its catastrophic policy failure onto the Northwest.

Two specific points are important to remember, and they have crucial relevance to the context for this "long-term dialogue."

First, while the FERC and California deregulation approaches took somewhat different paths, they coincided and amplified each other's faults in their micromanagement and irrationality. Especially troubling in hindsight is that respected experts warned about fundamental factors such as the non-storability and non-substitutability of electric energy, the need to maintain instantaneous supply/demand balance to avoid grid collapse and the unique economic characteristics that this imposes on the industry and its dependent users, the exceptional nature of electric power as an essential service, and the proclivity of improperly regulated markets to reward "rent seeking," "price taking," "gaming," "market power" and outright conspiracy and fraud. But their views were belittled and, worse, ignored.

The second point is that the case for well-managed wholesale markets is still strong. Wholesale competitive markets for electric power should exist, and they should be properly managed and have a proper role. That role is as an adjunct to well-planned and managed electricity production, distribution and use, and that role is quite small relative to the entire system. In effect, markets should accommodate the error term in planning. System stability, reliability, environmental quality and the widest distribution of benefits demand that this be our approach.

In summary, the theological notion that "reliance on the market will cure all ills" has now collapsed from its own internal illogic as well as the very tangible damage it has caused us as individuals, to our society, and to our environment. Markets have their place, a very important place, but markets are good tools and poor masters. The empirical evidence is now shouting so loudly that even the economists can hear it.

Focusing again on our regional situation, it is evident now that during the last decade our region too was swayed by this siren's song, and we let our focus on the Regional Act's blueprint slip away. Our planning certainly should not be static and needs to incorporate new developments in energy law, regulation, the market, consumer demand and technology, but I believe the Planning Council, the BPA and our states have the tools and perspectives to do so.

3. Future Prospects: The Intrusion of National Policy

Changes in Electricity Policy I: PUHCA. As we move forward, there are additional momentous changes that may occur. For example, it is possible that the Public Utility Holding Company Act of 1935 will be repealed or significantly truncated. Along with the Federal Power Act, this is one of the two key organic statutes for the entire electric utility system in our nation. If PUHCA is repealed, there will inevitably be a frenzy of merger-and-acquisition activity, and two phenomena of the 1920s may return: absorption of small consumer owned utilities by the private sector, and the inclusion of regional investor owned utilities in massive national holding companies that are, at best, weakly regulated at both the state and federal levels.

It is important, then, that we have a regional framework in place to protect the planning and resource priorities of the Regional Act if this process goes forward. This regional framework, designed to sustain our economy and protect our environment, must supersede the ability of utility holding companies to recover the costs of highly leveraged acquisitions by cramming down more expensive and environmentally damaging resources on our region, contrary to our regional planning.

Changes in Electricity Policy II: SMD. A second factor is being pursued at the congressional and regulatory levels, which is the prospect of forcible turnover of the region's electric grid, now managed by the BPA, to a private organization, presumably under FERC's increasingly ornate regional transmission organization (RTO) framework.

This is founded on FERC's fundamentally incorrect assessment that transmission problems in other regions can be addressed by functionally separating generation and transmission, and further, that solutions forced on other regions for their own good (whether they work or not), have any merit or relevance to the Northwest.

FERC's current Standard Market Design (SMD) proposal encapsulates this notion, and elevates it to the level of holy doctrine. In effect, FERC turns FDR's vision on its head, and argues that transmission and electric power should be managed on a highest-and-best-use basis, as mediated by an industry-controlled private board with only the vaguest blueprint for federal oversight, rather than as an essential service provided for the widest benefit, managed by both federal agencies and state regulators whose primary allegiance is (or at least should be) to the public interest.

The Decision Ahead: Choose For Ourselves, or Let Others Choose For Us. Beyond all the lofty rhetoric about PUHCA repeal, RTOs and SMD, however, is a very simple proposition. Why fix what isn't broke? The Northwest's cautious and progressive approach to energy development and transmission management, not only in the 1980 Regional Act but going back through the Transmission System Act, the Canadian entitlement treaty and the Bonneville Project Act of 1937 itself, has served us well and in general provided for the use and

conservation of our natural resources. Where our region has messed up, with salmon and with WPPSS, we have had to live with the consequences, eat the costs, learn the lessons, and at least start to improve our approach and our practice.

The "long term dialogue" and the plans before BPA and the Planning Council represent another step in that process. But for the first time ever, perhaps, the prospect now exists that a very different vision will be forced on our region by FERC and perhaps by Congress. That elevates the importance of renewing and improving our regional electric planning to an even higher level.

4. The Map and the Territory

The central theme, as we go forward, must be regional sustainability, self-sufficiency and mutual assistance. We should remember the old saying: "More power to you!" This didn't necessarily mean "greater quantity," it embodied the sense that we all benefit from a positive and mutual approach to our needs and problems.

The Natural Basins of Power Systems. The underlying reality is that electric grids work best at the regional level, with in-region resources closely matched to in-region demands. Some benefits can additionally be obtained with careful and loosely coupled inter-regional exchanges, but FERC's grand vision of a tightly coupled national grid with four arbitrary subregions is simply PowerPoint delusions and simplistic equations run to absurdity.

Electric grids are self-organized on a regional basis because they are settlement pattern-followers. And settlement patterns are based on the natural distribution of resources and transportation costs, which in turn have their basis in river drainages.

The definition of an electric power region as inherently riverine is going to become clearer as time goes on and we move away from our current overdependence on non-replaceable fossil and nuclear fuels for power generation. For renewable energy, regions are naturally defined by the nation's great first order river basins, which outline both hydro drainage and the weather patterns that produce usable solar and wind power. In this sense, geomorphology is destiny. Not surprisingly, our existing transmission grids already reflect this.

Planning Balances Quality and Risk. With this sense of reality in hand, and our realization that BPA and this region's utilities have built and managed a reliable grid with high-quality service and no implications of price gouging or persistent market failure, we can turn our attention to the elements of a long-term framework to extend and modify the previous two decades under the Regional Act.

We should first start by enumerating the qualities we expect from our electric energy system: stability, reliability, environmental quality, safety, equity of access and reasonable cost. These elements combine to provide the economic stability that we seek for our region.

It is important to retain the mandate of full cost life cycle accounting that the Regional Act requires, because this is essential to insuring that the factors below are fully and fairly incorporated into our planning, resource development and management.

Electricity planning naturally focuses on several forms of risk. These factors should be carefully weighed in assessing the various proposals provided for the "long term dialogue."

Forecasting Risk. First is the risk involved in incorrectly forecasting future demand and supply. Many will recall Kai Lee's early paper before his service on the Planning Council, "The Path Along the Ridge," which effectively argued that planning certainty cannot be eliminated, only managed and put within reasonable error bounds.

Capital Risk. A second factor is capital risk. This is especially important for electricity because the commitments are huge and difficult to redirect once they are made. Therefore, good planning is not a one-time thing but is a continual process. By getting away from the basic connection between planning and capital investment, our region underinvested in the resources in the 1990s that would have diminished our market risk just a few short years later.

The intriguing result is that the planning both in California and the Northwest has generally stood up in retrospect on both the supply and demand sides, and deviating from the flexible plans that were created in search of some kind of vague optimality promised by market dependency didn't work out very well. Instead of providing negative feedback to smooth out economic turbulence, irrational deregulation added an element of positive feedback that directly spurred the great energy crunch of 2000-2001.

The accompanying underinvestment in preferred resources like conservation, renewables and high-efficiency gas fired plants in the 1990s kept rates down, overstimulating an already racing economy, deepening the collapse, undercutting the Northwest's decade-long investment in conservation infrastructure, and now we are in a weaker overall position as we eventually emerge from the bottom of the business cycle over the next few years. The plans laid out by various parties in the "long term dialogue" should be evaluated to see whether they will avoid repeating this pattern of capital misallocation in the future.

Conventional Fuel Price and Availability Risk. A third factor is conventional fuel risk, which is a subset of market risk. I won't discuss short-term factors like the issues involved in fine-tuning the hour-ahead and day-ahead markets. Properly designed systems minimize those

risks by making them a small part of the overall mix and by prudent hedging strategies through portfolio management and strategic planning.

More important is exposure to market risk for fuel prices and availability in existing and planned power plants. In the Northwest, where there is a significant but relatively stable proportion of coal fired power, the real issue is the future course of natural gas prices and deliverability. The signs here are not good. Gas has long been a very volatile commodity, subject to both both market variance and political effects.

The latter is amplified by the fact that national energy policy in both the US and Canada influences our primary sources of gas. That will be even more true in the future, as the issues of coalbed methane in the intermountain region to our east and possible gas production from the North Slope of Alaska and northwestern Canada comes into play.

A final factor may be the revival and expansion of the global liquefied natural gas industry, which would be spurred by wholesale prices of $4.00 per tcf and above.

Deliverability is also a big future factor for this region. Recent studies of existing gas pipelines and potential future expansions by the Washington Trade and Economic Development office and others strongly indicate that our current *de facto* regional power development bet, very heavily weighted on new natural gas, has a hidden and crucial dependency on gas transportation capacity that not only does not exist but is not contemplated in filed plans or even future gas industry planning.

Renewable Fuel Risk. A fourth factor is fuel risk for renewables. Since they take advantage of non-rival and non-exclusive resources, there is deliverability risk but not price risk. This is based on two perceptions.

First, the perceived deficiency of hydro, over which we spend an extraordinary amount of effort and anguish, is its annual variability. Yet I believe this is balanced to a considerable degree by the fact that it is just one of the three major renewable fuels -- hydro, wind and solar -- that we should develop in this region (leaving aside the probably smaller contributions that renewable geothermal, biomass and other forms may provide). The annual range of variation in wind and solar, considered in the regional aggregate, is considerably less, and to some degree counterbalances hydro. And in fact, these three resources are climatically linked. This only makes sense: when less rain is falling in a given year, there is more sunshine.

A second misleading factor is that renewable fuel variability can be very large at any given production site. Wind in particular has relatively large stochastic variation in both temporal and geographic terms. However, averaged over a reasonably large area, these variations smooth out. It might or might not be windy at a given wind turbine at any given moment, but it's pretty

windy overall in the mid-Columbia, interior Montana, etc.

Environmental Risk. A fifth risk is environmental damage from energy production and use. Even the most carefully built and managed renewable energy power plants have some environmental effects, whether from producing the constituent materials or from other effects, and utility-scale hydro in particular has significant impacts on fish and wildlife habitat; large dams are even responsible for micro-seismicity. Conventional resources like coal, gas, oil and nuclear plants, on which we will rely for a long time to come, have orders of magnitude larger effects, particularly on air and water consumption, land effects from mining and waste disposal, toxic air and water emissions, and so on.

The most direct method of minimizing these risks is through demand side management: energy efficiency, load control, environmental dispatch on the grid and other methods that reduce or eliminate the need to operate power plants. A second important method is to retire old dirty plants or fish-killing hydro and substitute less damaging resources as quickly as possible over time. A final strategy is to improve efficiency through better operations and maintenance, cleaner fuels, and so on.

Realization Factor Risk. A final risk, applicable to all resources, is realization. Every construction or acquisition program fails to meet its resource potential due to unexpected factors, whether this is the inability to complete a nuclear plant, delays in building new gas, production below expectations in a wind field, or decreased installation and underperformance of energy efficiency measures.

5. Regional Self-Reliance is a Strategic Choice

When the various risk factors are combined, together with the less quantifiable but nonetheless real political risks faced by this region, I believe a very strong case can be made for an approach that both the Public Interest Proposal and, to some degree, the joint utility proposal, have presented to BPA and the Council.

Regional Perspective. First and foremost, we should maintain and strengthen the regional perspective. Second, we should engage in a determined and effective shift towards relying on future development of in-region resources rather than being overexposed to out-of-region fuels as will happen if we follow our current trajectory of very high reliance on new gas and coal.

The utility proposal goes a long way in the right direction on the first, but still does not commit fully on the second principle. Despite the dramatic fall in the merchant power industry in the last few months and the deferral or cancellation of several projects in this region as well as numerous

ones elsewhere, a considerable amount of new generation is likely to come from new gas and coal plants over the next two decades.

A Scaled-Back Role for New Gas. There may be some desirable projects, as long as they are compatible with the regional system, in particular if they: (1) work complementarily and not against hydro and the new renewables; (2) displace older, less efficient and more polluting plants; and (3) are not promoted through hidden subsidies including manipulation of transmission access rules and rates.

In addition, along with energy efficiency measures, these are well-developed and understood technologies, and pose somewhat less realization risk than other alternative resources.

However, there are very significant risks for too great a reliance on new gas and coal, and the risks are large in both uncertainty and potential scale. Fuel price and availability, especially for gas, must be given high consideration, as must inevitably greater dependence on political policies and regulation of fuel transportation for gas and power transmission for the produced electricity.

The CO2 Wild Card. Even beyond that is the prospect of greenhouse gas emission controls or levies. Oregon has explicitly recognized this in its CO2 mitigation standard, and other states are beginning to follow suit, but the Oregon standard may be as much as an order of magnitude less than the fully allocated cost of carbon mitigation.

Again, there is great uncertainty on the eventual course of greenhouse gas mitigation policy, but two outcomes are likely. First is a pronounced shift from coal to gas in electricity production, which will raise costs for both fuels (increased demand for high quality coal, especially from eastern markets, and exogenous increases in demand for gas from all end uses).

Second, the general expectation that gas will rise from about 4% of Northwest electricity supply to as much as 20% over the next two decades guarantees a doubling of power-plant CO2 emissions attributable to Northwest demand, even with the most efficient current combined cycle technology.

Unless in-plant carbon suppression or sequestration technology can be developed, this poses a particular challenge for our region. Going forward, CO2 mitigation policy, as with other emissions control regimes, will likely focus more on incremental development than existing resources (as with the grandfathering provisions of New Source Review under the 1990 amendments to the Clean Air Act). This is not wise public policy, of course, but it is a realistic political expectation.

Since the Northwest would dramatically increase our CO2 and greenhouse gas emissions on a percentage basis, off a fairly low base, the net effect would be to increase our conventional resource development and operation costs. This poses yet another reason why we should turn

to our in-region potential, almost exclusively based on the priority conservation and renewable energy sources, first.

6. The "As Is" and "As If" Strategy

I have elsewhere characterized the combination of the utility and Public Interest Proposals as an "As Is/As If" approach.

Slice the FCRPS "As Is" for 20 Years. Under the utility "slice" framework, the output of the Federal Columbia River Power System would be divided among BPA's customers generally as it is now being done: that's the "As Is" part. Utility customers, in particular, are willing to give up some future flexibility in order to avoid debilitating rate case low-intensity conflict, breaking out periodically in courtroom hostilities.

The second, equally intriguing aspect of the utility proposal is to shift a significant part of regional resource development away from BPA and to the utilities themselves (setting aside that some smaller utilities wish to continue their existing full requirements service where BPA also provides all new resources).

The utility proposal is more vague on the mix of new resources and how they propose to develop them. The advantage of the Public Interest Proposal is that it puts a spotlight on this critical issue and shows how the region can do proper planning and move much more effectively than in the past toward effective implementation. Further, it acknowledges the utility desire to take more direct responsibility for resource development. Finally, it ties that development back to BPA's organic responsibility under the Regional Act to develop new resources according to the familiar priority steps: conservation, then renewables, then high-efficiency thermal, then all others.

Develop Conservation and Renewables "As If" the Load is Placed on BPA. The mechanism for doing so is what I have labeled the "As If" half of the strategy. To the extent that cost-effective conservation and renewables are available (including the diversity and other risk reduction benefits of renewables, giving them a bit higher of a cost cap than the conventional cost-effectiveness test allows), the region would act on a contractually binding basis *as if* that load is being placed on BPA and being met with the same resource stack.

However, if the utilities carry out the task of fully developing our own region's conservation and renewable energy, as has only been hesitantly done in the past, it would simply bring to fruition a long-neglected section of the 1980 Regional Act:

> If a customer so requests, the Administrator shall grant billing credits to such customer, and provide services to such customer at rates established

> for such services, for -
>
> (A) conservation activities independently undertaken or continued after December 5, 1980, by such customer or political subdivision served by such customer which reduce the obligation of the Administrator that would otherwise have existed to acquire other resources under this chapter, or
>
> (B) resources constructed, completed, or acquired after December 5, 1980, by a customer, an entity acting on behalf of such customer, or political subdivision served by the customer which reduce the obligation of the Administrator to acquire resources under this chapter. Such resources shall be renewable resources or multipurpose projects or other resources which are not inconsistent with the plan or, in the absence of a plan, not inconsistent with the criteria of section 839b(e)(1) of this title and the considerations of section 839b(e)(2) of this title.
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> 16 USC 839d(h)(1).

In my view, this provides ample authority to move forward with the combined "As Is/As If" approach to our region's electric energy future. While the billing credits mechanism has some implementation problems, and was examined at length in the early 1980s but then dropped, it may be the mechanism through which a new regional long-term framework for resource development can be implemented. Even if billing credits are not the eventual mechanism, the spirit of the law certainly strongly suggests that BPA should heed the utility request to take on more direct responsibility for resource acquisition.

On the other hand, a long-term regional agreement that shifted resource development responsibility from BPA to the utilities that did not accomplish *at least as much* conservation and renewable energy development as the BPA itself would if the equivalent load were placed on the Administrator, would be wrong and fall short of statutory letter and principle. I do not believe that the BPA can legally execute contracts that frustrate the intention of the Regional Act by delegating regional resource development responsibility in such a way that it falls short of this standard.

Regional Strategy Step 1: Finding a Resource Consensus. On this central question, the extensive discussions among utility, public agency and public interest organizations this year are cause for some optimism.

It is premature to say that we have reached any kind of agreement, but there is more shared ground than seemed possible even six months ago. In general, and speaking only for myself, I think the utilities could come some distance toward the environmental and public interest keystone of acquiring all regional (not just BPA) resources from conservation and renewables, including new resources to meet old power plant retirements.

I think there is ample evidence, given the recent Tellus and Rand studies, the ongoing research of the Planning Council and its forthcoming Fifth Plan, state energy offices and utility commissions, utility least cost plans, and not least the conservation and renewable programs of some of our leading utilities, that it is possible to fill most if not all of our future needs this way. It is a matter of choice, because all of the resource alternatives are now competing, whenever they are allowed to, in the neighborhood of somewhere around 4 to 6 cents per long term kWh (depending on how externalities are factored in). In fact, a large portion of the available energy efficiency resource is well below that cost and its acquisition has been frustrated by non-price factors that are slowly being understood and overcome.

In turn, I think the organizations on the public agency and public interest side could be more responsive to the utility need for autonomy and creativity in resource program development and management.

Regional Strategy Step 2: Binding Contracts for both Power and New Resources. There second element needed to make this "As Is/As If" strategy a reality is the single most innovative part of the utility proposal, a contractual rather than regulatory (rate case) paradigm. This offers more certainty about results following planning than the rather weak linkage in the existing Regional Act approach, which has proven that we are good at least cost planning and not so good at least cost doing. And it further has the very desirable feature of being compatible with the existing statutes.

There is an important underlying point in the utility proposal which has not received much attention but deserves initial commendation and encouragement. The new contractual framework would include not only a new long-term power deal, but also binding language to cover conservation and renewable energy development. This is our historical road-not-taken, the very piece that was abandoned in 1981 at the dawn of the Regional Act era by mutual consent of BPA, the utilities and DSIs (but not by the as-yet unformed Planning Council, and certainly not by our environmental and public interest groups).

If properly done, this would go a long way to solving the major structural problem in our region, which is the chronic inability to connect program and spending with planning. There is certainly no silver bullet, and every program, plan or contract carries within the seeds of its own demise (which suggests that a life cycle exists for any collective action regime), but adopting a binding approach for significant conservation and renewable energy development following the directives of regional planning would put us back on our original intended course, but with more consistency going forward.

Regional Strategy Step 3: Recalibrate BPA's Command and Coordination Roles. The final element in a successful new regional strategy will be a revised and modernized role for the Bonneville Power Administration.

Institutionally, BPA has always been the advocate of strong central control, planning and development for the region's energy system. Unfortunately, this has often been a mono-chromatic tendency which overlooked the fact that some things are better done through central control and others are better done locally with appropriate coordination. In my personal view, the utilities have long favored too decentralized an approach, and BPA conversely relied too much on top-down control.

Over the decades, the regional infighting has focused on who controls the overall direction. The balance of power wavered between BPA to the utilities and back again. BPA's influence has regularly peaked with the planning regimens adopted about once a decade: the promotional era of the 1940s, the Partnership Program of the 1950s, the Hydro-Thermal Power Program in the late 1960s, the post-Regional Act peak of the mid-1980s, and the Regional Review in the mid-1990s. Each time, utility resistance has grown as BPA exerted more authority and cracks appeared in the planning framework of the moment.

Even when aligned in purpose, however, the region has been capable of both pronounced successes and dismal failures. The very complex effort to organize the development of the Intertie and the Canadian entitlement and coordination agreements could not have been completed without regional unity. Conversely, the WPPSS nuclear development debacle arose from enforcing regional unity, loyalty to a particular viewpoint and suppression of review and dissent, with the result that there was a resource realization failure, rates have gone up significantly for two generations, and we are still a decade away from the end of the story.

Now that the region faces significant external risks, it is even more important to review our history and apply the lessons learned more effectively.

One is that BPA is an essential central player in our region, but cannot be all things to all people. It must retain its primacy as manager of the region's hydropower and the federal part of the regional transmission grid. This is consistent with our government's role as the protector of public values and natural resources. But BPA must also not try to micromanage every effort relating to the overall electricity system it is involved with. In effect, we want to take better advantage of the intellectual and physical resources at the end of the wires, and not have BPA outgrow the appropriate scope of its *command* role.

BPA's second role has been diffuse and underestimated, but now it needs sustained attention. And that is *coordination* of the region's system. There has been much resistance over the years from the local level, because, sometimes rightly, BPA was perceived as being overbearing, indifferent to local concerns, or simply in too much of a hurry to do a good job. At the same time, the region's utilities and other stakeholders don't give enough credit to BPA for their expertise in system management and engineering, and have often slacked off on their own responsibilities, especially to the resource priorities in the Regional Act and the statutory mandate to protect fish and wildlife.

In my estimation, then, the current "long term dialogue" offers an opportunity to have BPA reshape its role to focus on its two core competencies: management of the FCRPS and providing careful and responsible regional coordination. This in turn would free up resources within the agency, and allow greater autonomy *and* responsibility to the utilities to manage resource development in ways that are more compatible with their own customer bases.

Conclusion

I thank BPA, the Planning Council, and all participants in this regional "long term dialogue." We have been through some extraordinary times that neither planning nor the market predicted. It is a reminder that politics is important, and that as always, Mother Nature bats last. Now we have some choices to make.