

Approved: Carl Dean Holmes  
Date 2-10-1993

# MINUTES OF THE HOUSE COMMITTEE ON ENERGY AND NATURAL RESOURCES.

The meeting was called to order by Chairperson Carl Holmes at 3:30 p.m. on February 4, 1993 in Room 526-S of the Capitol.

All members were present except: Rep. Long, excused

Committee staff present: Raney Gilliland, Legislative Research Department  
Dennis Hodgins, Legislative Research Department  
Mary Torrence, Revisor of Statutes  
Cindy Garland, Committee Secretary

Conferees appearing before the committee: Don Low, Director, Utilities Division,  
Kansas Corporation Commission

Others attending: See attached list

Chairperson Holmes welcomed Don Low, KCC, to the Committee meeting.

Don Low, Director, Utilities Division, KCC, briefed the Committee on Integrated Resource Planning. He stated that integrated resource plans are essential to a utility's long-term plans for meeting their customers' future energy needs. This is done not only by adding new supply sources but also by helping customers use energy more efficiently through promotion of demand-side management (DSM) measures. Mr. Low gave an overview of the rules and discussed the significant issues related to integrated resource planning. He then responded to questions by the Committee. (Attachment I)

A motion was made by Rep. Grotewiel and seconded by Rep. Myers, to approve the Committee Minutes of February 2, 1993. The motion carried.

The meeting adjourned at 4:30 p.m.

The next meeting is scheduled for February 8, 1993.

# GUEST LIST

COMMITTEE: ENERGY & NATURAL RESOURCES

DATE: Feb 4, 1993

NAME (PLEASE PRINT)	ADDRESS	COMPANY/ORGANIZATION
TREVA POTTER	TOPEKA	UTILICORP
MIKE HERTLING	LAWRENCE	KPS
Grissel Jones	Lawrence	Y.D.A.
Ann Johnson	Shelton	Sum Co Comm.
Marshall Clark	KEC	TOPEKA
Doug Shepherd	KEC	Topeka
Carl Daugherty	Columbus	EMPIRE DISTRICT ELEC.
Bob Fincham	Topeka	AIA KANSAS
Trudy Aron	"	Am Inst of Architects
Paul Johnson	"	PACK
Larry Sexton	"	Div. of Budget
Earlie Lehman	"	WKI
Jim Ludwig	"	"
Bruce Graham	Topeka	KEPCO
Bill Anderson	Mission	Wath Dist 1 of Jo Co
BRIAN MALINE	TOPEKA	KCC
Don Low	"	"
DAVE DITTMORE	Topeka	KCC
Pete Felkema	Lawrence	KCC
David Springle	Lawrence	KCC
John Gita	LAWRENCE	KCC
LARRY COWART	TOPEKA	KCC

February 4, 1993

PRESENTATION TO  
THE HOUSE ENERGY AND NATURAL RESOURCES COMMITTEE

By  
THE CORPORATION COMMISSION  
Don Low - Director, Utilities Division  
On  
"INTEGRATED RESOURCE PLANNING"

Background and Status. About a year ago, the Commission initiated a proceeding to consider rules requiring gas and electric utilities to develop and submit to the Commission integrated resource plans (IRP's). IRP's are essentially the utilities' long term plans, or roadmaps, for meeting their customers' future energy needs not only by adding new supply sources, e.g. a new power plant, but also by helping customers use energy more efficiently through promotion of "demand-side management" (DSM) measures.<sup>1</sup> Planning which integrates "supply-side" and "demand-side" resources is desirable in helping to ensure that utility investment in new resources is necessary and efficient and that utility services are provided in the least cost manner. Congress, in sections 111 and 115 of the Energy Policy Act of 1992, now is requiring state commission consideration of

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<sup>1</sup> Installation of more efficient lighting, electric motors, insulation, and air conditioner load controls are examples of potential DSM measures. The draft rules define them as "any hardware, equipment, or device installed or behavioral practice which is altered resulting in an improvement to either the 1) efficiency of energy use, 2) timing of use, or 3) some combination thereof. A DS measure is typically an action taken by, or on behalf, a customer." The draft rules do not consider utility rate structure or pricing of services as a DSM measure or directly part of the IRP process. However, improvements in pricing are recognized as a part of the goal of efficient energy use.

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Attachment 1

mandatory integrated resource planning by utilities.<sup>2</sup> Over thirty states now have some form of integrated resource planning or least cost planning requirements and other states have opened up proceedings to consider them.

The Commission staff, with assistance from consultants hired for the project, held four workshops last summer and fall to solicit input from any interested persons into potential IRP rules. Based on those comments and our research and analysis, we developed and circulated a first draft of rules the first of last month. Written comments on those rules are due by February 25th. We have provided some copies of those rules to the committee and would be glad to provide more if desired. We anticipate revisions to that first draft based on both the comments to be received and further staff review. Depending on whether additional comments on the next draft are deemed desirable, we anticipate submitting proposed rules to the Commission in late March or April. If the Commission decides to proceed, the proposed rules will be published for a

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<sup>2</sup>The Act defines integrated resource planning for electric utilities as "a planning and selection process for new energy resources that evaluates the full range of alternatives, including new generating capacity, power purchases, energy conservation and efficiency, cogeneration and district heating and cooling applications, and renewable energy resources, in order to provide adequate and reliable service to its electric customers, at the lowest system cost. The process shall take into account necessary features for system operation, such as diversity, reliability, dispatchability, and other factors of risk; shall take into account the ability to verify energy savings achieved through energy conservation and efficiency and the projected durability of such savings measured over time, and shall treat demand and supply resources on a consistent and integrated basis." The definition for gas IRP is similar.

formal comment period and formal hearings will be held before the Commission. At the earliest, the rules could become effective in late summer.

Before discussing the substance of the draft rules, I should emphasize that they represent only the staff's work at this point. As noted, they will be subject to Commission review and modification later in the process.

Overview of Rules. The current draft would require utilities to submit integrated resource plans to the Commission every three years. At this point we anticipate establishing a staggered schedule of submissions so that all the plans are not submitted at the same time. Because of exclusions for retail electric coops, municipal utilities and small utilities, the rule would apply to five electric and eight natural gas utilities operating in Kansas.

Although the actual development of the IRP plans will be complex and will require a lot of information and data, the basic steps are relatively simple in concept. Those steps are: forecasting energy demand for the planning period; identifying and investigating potential new supply and demand-side resources; and integrating the resources for an optimal mix in light of cost and other considerations. As a result of that process, the utility specifies what is referred to as its "preferred plan" for acquiring and delivering the optimal mix of resources.

The load forecasting requirements in the draft rules are not new concepts for utilities. However, the rules do contemplate a method of forecasting, end use forecasting, which breaks down the various components of load to provide more accurate forecasts than may have been

true in the past. Furthermore, we are suggesting the use of twenty year planning horizons, which is longer than some utilities, especially natural gas utilities, have traditionally used.

The utilities, of course, are accustomed to identifying and investigating potential supply side resources to meet future energy needs. However, the draft rules explicitly mandate investigation of renewable resources and independent power production as well as the traditional utility-owned fossil fuel-fired generation options.

The innovative aspect of integrated resource planning is the investigation of demand-side management (DSM) measures as potential resources. Basically, this requires utilities to look at meeting customers' energy needs not by supplying more energy but by promoting measures which allow customers to use energy more efficiently. For example, a DSM program, which is an offering of one or more DSM measures, such as promotion of new compact fluorescent light bulbs or water heater wraps, could delay the need for additional electric generation and therefore should be considered as an alternative energy resource.

The actual integration or optimization process centers in large part on the concept of avoided cost. Avoided cost is generally discussed in the context of demand-side resources and is used to calculate their cost-effectiveness. Because DSM measures increase the efficiency of energy use, they enable the utility to avoid the need for new generation plants, transmission and distribution facilities and other costs. The cost effectiveness of supply side resources, of course, are determined using standard cost-benefit analysis. On the basis of these cost effectiveness analyses, the utility can select the least cost or optimal mix of resources



which becomes the core of the "preferred plan" to be submitted to the Commission for review. As part of the overall IRP submission, the utility will also have to file all the underlying data, assumptions, analysis and justification for the preferred plan.<sup>3</sup>

In the draft rules, we have included provisions which attempt to ensure an open process for the review of submitted plans so that all interested persons have an opportunity to participate and provide input. One of those provisions also allows for informal participation prior to the actual submission of the plans. The draft rules also provide for the possibility of informal procedures to address issues or exchange information which may be of common interest to all electric or gas utilities in their development of IRP plans.

Significant Issues. Although there are numerous issues which are being addressed in the formulation of the rules, some policy issues may be of particular interest to this committee.

First, Commission review of the submitted IRP plans represents something of a change from existing regulatory involvement in utility planning. At present, the KCC reviews utility decisions to invest in facilities or programs in the context of general rate cases in which the

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<sup>3</sup>The draft rules also require a risk assessment of the preferred plan. In addition to the traditional uncertainties associated with new supply resources, e.g. construction costs, construction time, operating and fuel costs, and reliability; there are new uncertainties associated with the potential DSM programs, e.g. customer participation levels, efficiency improvement levels and durability, and implementation costs and schedule. Risk assessment will include sensitivity analysis of these uncertainties through extra iterations of the computer optimization model runs required under the integration process.

utility is proposing to include new investments in rate base or in test year expenses as part of the revenue requirement. In those cases, the Commission reviews the investment decision **after the fact** for reasonableness and prudence and to determine whether the property is "used and required to be used" as contemplated by K.S.A. 66-128. The primary exception now is in the context of applications for siting permits under the electric generation siting act, K.S.A. 66-1,158 et seq. and transmission line siting statutes, K.S.A. 66-1,177 et seq. In those cases, the Commission is required to assess the need for the facility and the reasonableness of the proposed siting before construction begins. However, the Commission still addresses the "used and required to be used" criteria and the reasonableness and prudence of the actual costs of the completed facilities in the context of rate cases.

The process contemplated by the draft IRP rules would be similar to that which results from the siting acts but would cover the utilities' overall plans for both additional supply and DSM resources. The draft rules do not propose that the Commission "approve" the submitted plans, as some of the parties have suggested, but the Commission would review the plans and determine whether to "accept" them. Furthermore, unlike the case under the generation siting act, there would be a periodic review (every three years) of the continuation of previous plans. Thus, the KCC will have the opportunity and the obligation to formally examine utility planning decisions to a greater extent than is now the case.

Another policy issue concerns cost recovery and incentive mechanisms associated with the plans. The draft rules address IRP costs in three different ways: §9.02 allows certain demand side management



(DSM) costs, which would normally be expensed, to be capitalized and deferred for recovery; §9.03 allows, under specified conditions, for either recovery of identified net revenue losses due to implementation of DSM measures or a decoupling mechanism which periodically "true up" rates to reflect changes in sales; and §9.04 allows for sharing of cost savings between ratepayers and stockholders due to implementation of DSM, subject to certain guidelines.

In proposing these mechanisms, the Commission staff has balanced the desire to promote DSM with concerns over allowing utilities to gain unwarranted earnings. We have concluded that we should attempt to treat DSM costs similar to capital costs associated with new generation facilities and should remove some of the disincentives to implement DSM due to decreases in sales. We also are suggesting some positive incentives to encourage implementation of the integrated resource approach. In this regard, the proposed positive incentive mechanism is a savings sharing approach rather than the rate of return bonus alternative that is currently set forth in K.S.A. 66-117(d). That statute allows an additional incremental rate of return on investment in conservation, energy efficiency or renewable resources of from 1/2 to 2%. We believe the shared savings approach is more desirable because it would be based on the actual energy savings generated by efficiency investments rather than just the dollars invested. However, the final rule could provide for different mechanisms based on comments received and the rule could change in the future as all concerned gain experience with the IRP process. In any event, we believe it is desirable to allow for flexibility in the

mechanisms used to promote the IRP process. The Commission will likely suggest statutory amendments to ensure that flexibility.

Another significant issue concerns the consideration to be given to costs or impacts which are not otherwise reflected in the direct cost analysis of resource options. These costs are not normally reflected in analyses because they are not built into the prices of goods and services and are therefore known as "externalities."<sup>4</sup> The major externalities for consideration in the IRP context are those associated with environmental impacts, such as air emissions due to use of different types of fuels. Consideration of such externalities could significantly influence the kind of new electric generation facility, e.g. gas or coal fired, and the level of DSM chosen under the IRP plan.

The draft rules address the externality issue through the provisions concerning cost effectiveness tests. As mentioned earlier, the choice of supply and demand-side resources is done through the application of cost effectiveness tests. The draft rules require the use of the "Total Resource Cost" test which compares the benefits (consisting of utility avoided costs) against the costs (consisting of utility program administration costs, including customer incentive payments, and customer direct costs) of the evaluated resource. This cost effectiveness test is the basic one adopted by most other states. Some states, however, have adopted the Societal Cost Test, which differs from the Total

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<sup>4</sup>The draft rules define externality as "a cost or benefit from production or consumption that is not accounted for in market prices. For example, the damage costs created by the presence of certain pollutants are negative externalities. All costs which are external to the current system of pricing for energy or energy services."

Resource Cost Test by including externalities in the determination of avoided costs.<sup>5</sup> The draft rules also require utilities to determine how use of this Societal Cost test would affect the preferred plan.

The use of both tests will allow the utilities and the Commission to determine the costs and rate impacts of addressing environmental and other considerations. Although the quantification (monetization) of externalities will be very difficult, we believe that it is desirable to consider such factors in order to determine which plan is acceptable and in the public interest. Since some parties have expressed doubts about the Commission's authority to require analysis of externalities, clarifying amendments to K.S.A. 66-117 would be desirable if the legislature feels that explicit authorization is appropriate.

Conclusion. I hope this summary of the Commission's IRP proceeding is helpful. We would be interested in any concerns or comments you might have about this undertaking and would be glad to update any of you as we continue to consider the matter.

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<sup>5</sup>The draft rules do require the utilities to include costs of compliance with environmental regulations which may not be currently effective but are reasonably anticipated during the planning period in the Total Resource Cost test. This approach, also recently adopted in Missouri, simply reflects good planning.