Electricity Policy: Options for Montana

A Preliminary Report and Discussion of Policy Options

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Background and Purpose

This study was performed at the request of the Montana Legislature's Transition Advisory Committee. The study's primary goal is to present an analysis of the policy options available to the Montana legislature to best serve the default supply electricity customers, particularly the residential and small commercial customers. The aim of this analysis has been to identify policy options for after 2007, by which time the existing system for serving default supply customers through Northwestern Energy will have expired.

This report identifies policy options that are available to Montana, and provides an analysis of those options in the Montana context. Ultimately, the decision about which policy options to pursue rests with the state legislature. NCSL submits this report with the hope that it will provide useful guidance in the legislature's decision-making process.

The Montana Context and Background (*This section to expanded for the final report)*

Montana is unlike a number of other states that have adopted electric industry restructuring laws, and its approach to restructuring policies must be a careful balance of policies that have shown promise in other states and policy approaches that are unique to Montana. There are at least eight features about Montana's electric industry that are important to consider.

1. *Montana's load is small*

2. *Montana's population is widely dispersed*

3. *Montana relies heavily on electric cooperatives for power*

4. *Montana is somewhat transmission-constrained*

5. *Montana's power rates have been, and remain among the nation's lowest*

6. *Montana is one part of an integrated western electric system*

7. *Montana is well-endowed with both renewable and non-renewable resources*

8. *Montana has already established a corporate separation of its generation and transmission and distribution operations*

Major Assumptions and Lessons from Small Customer Retail Markets

By late in 2000, Montana and some 23 other states had enacted legislation that would open their retail power markets to competition. These laws were complex and the result

of lengthy negotiations and compromise. With only two exceptions – Oregon and Nevada, the new state laws aimed to give all retail customers access to competitive power markets and access to the benefits of innovation and lower prices that the competitive market could provide. The goal of these efforts was often to reduce prices in the short term and make the power industry more efficient in the long term. These laws set up sometimes lengthy transition periods during which the large utilities would be able to recover stranded costs (costs that the utilities had incurred, with approval of their regulators, before the start of competition that they would not be able to recover in after the transition to retail competition).

These transitions were also meant to give customers an immediate benefit by requiring lower rates, or were meant to shield them from any chance that their rates might go up, by freezing rates.

The results of these new laws have shown that for the most part competition has been slow to come to the smallest of consumers, while the larger consumers have received more attention from marketers and generally been able to take advantage of the competitive market. This has been true not only for Montana, but in almost every state that has opened up its markets to competition.

Montana Switching Data (Source: Northwestern Energy)

	July, 1998	**Sept 1998**	**July 2000**	**July 2002**	**Sept. 2002**
# of Residential Customers Switching		--	943	80	77
Small Commercial		20	1179	1340	1274
Industrial	1	24	33	35	38

Source: Northwestern Energy

A few examples, below, illustrate this situation in California, Massachusetts and Ohio. The California market showed few residential customers switching to new providers. Of note, though, is that the vast majority of the customers switched did so in order to buy a "green" environmentally friendly product.

California Switching Data: October, 2000

	Residential	**Commercial**	**Industrial**	**Agricultural**	**Total**
Customers Switching	1.7%	7.5%	12.8%	2.5%	1.8%
Load Switching	2.0%	16.1%	27.4%	6.9%	11.9%

Massachusetts reflects a similar situation, but perhaps even more dramatic, with fully 38 percent of the industrial load having switched while less than one percent of the residential customers switched to a new provider. As with California, the largest

customers who represent a relatively small number of the electric meters but a large percent of the kilowatt-hours were switching.

Massachusetts Switching Data: March, 2002

	Residential	Small/Medium Commercial/Industrial	Large Commercial/Industrial
Customers Switching	0.4%	4.2%	24.8%
Load Switching (Industrial Only)	-	-	38%

In Ohio, it is similarly the case that only a few residential and small business customers have sampled a competitive product. The only situation in which large numbers of small customers have switched providers is in the Cleveland, Ohio, area (and much of northern Ohio) where a new organization known as the Northeast Ohio Public Energy Council aggregated a group of more than 300,000 customers through an "opt-out aggregation" program. These customers who lived in close to 100 cities and towns were given the option to buy power on their own or to let their municipal government buy power on their behalf. The opt-out aggregation process assumed that the customers would be a part of this large, aggregated group unless they affirmatively stated that they did not want to be a part of the group. This process is one of the only ways that large blocks of customers have thus far switched to a competitive provider. Otherwise, few competitors are marketing to the small customers and few of them are switching to new providers.

Ohio Customer Switching Data:2002

	Residential Customers	Small Commercial/Industrial	Large Commercial/Industrial
Cleveland	55%	22%	18.8%
Toledo	5%	20%	4%

There are several reasons that the markets have been slow to develop; however five of them are particularly prominent.

Marketing costs

Interviews that NCSL has conducted with retail electricity providers over the course of the previous several years reveal that the costs of acquiring a new retail electric customer are in the range of $200 per customer. Sometimes they are less; sometimes more. One other somewhat analogous example comes from the telecommunications industry. Excluding all other costs for mailing, personnel etc. it has been common practice for telecommunications providers to send $75 to $200 checks to potential customers; cashing such a check signifies agreement to switch to a new provider.

Small dollar savings for small customers

Small customers, by definition, use little electricity. The Energy Information Administration of the U.S. Department of Energy cites 700 kwh per month as a typical customer usage. Savings to customers in competitive power markets, when customers have switched, have ranged from 2 percent to 10 percent.

The following figures for Montana would illustrate the potential savings for a small Montana customer.

Regulated Electric Charges

Residential Services		**Date Effective**			**Date Effective**		
		7/1/2002	**---thru---**	**Present**	**5/8/2001**	**---thru---**	**7/1/2002**
Monthly Bill		**Current Rates**			**Prior Rates**		
Description	**Usage Input**	**Usage**	**Rate ($)**	**Total**	**Usage**	**Rate ($)**	**Total**
Residential Services							
Summer	750						
Res. Supply-Energy Summer		**750**	**0.037366**	**$ 28.02**	750	0.024342	$ 18.26
Res. CTC-QF		750	0.002171	$ 1.63			
Res. Transmission-Energy		750	0.008107	$ 6.08	750	0.008107	$ 6.08
Res. Dist.-Service Charge				$ 4.60			$ 4.60
Res. Distribution-Energy		750	0.025234	$ 18.93	750	0.025234	$ 18.93
Res. BPA Exchange Credit		750	-0.002435	$ (1.83)			
Res. Sale Credit		750	-0.004468	$ (3.35)			
Res. USBC		750	0.001334	$ 1.00	750	0.001334	$ 1.00
Total Regulated Electric Charges - Monthly				$ 55.08			$ 48.87

Source: Northwestern Energy

A Typical Residential Customer's Bill:	**$55.08**
Amt. of Typical Bill For Power Delivery, Other Charges	**($27.06)**
Portion of Bill Subject to Competition	**$28.02**

Typical savings for a residential customer in other states have tended to be from 2% to 10%. If savings remain consistent with other states, the savings to a Montana residential customer will range from 56 cents to $2.80 per month.*

Volatile, evolving wholesale markets

* This savings estimate is based on an assumed 750 kWh usage per month. Customers who do not use air conditioning or electric heat are likely to have lower usage, perhaps in the 400 to 600 kWh per month range.

Retail market rules

Small margins on serving retail load

> With these small retail margins, it has become clear that marketers need to have most everything else go exactly right when they are in the small retail customer business. Small barriers make a big difference. Wholesale markets must be predictable enough that they can absorb, or manage, their risk exposure. The pricing of the non-competitive default service must be predictable and – if the goal is to create a market that encourages retail marketers – even high enough to allow the marketers to still make a profit. Retail market rules must be amenable to the retailers – including such items as billing, information disclosure, sharing of information, customer switching procedures etc.

Small glitches become expensive and can make the marketers' job difficult. Yet small glitches, and sometimes large problems, are common if not inevitable in a transition as far reaching as that being attempted in the U.S. electric power industry.

These numbers are not to imply that retail competition can not work, or that it will not work in the future for the smaller electricity customers. The results do imply, however, that the model for retail competition in which marketers would be assumed to approach small customers on an individual basis – customer by customer – may be longer in coming than many policymakers had assumed, at least without some new structures in place. It implies, also, that there may be value in re-examining this model for retail competition for the smaller customers. As the TAC requested, this study provides options to serve retail electricity customers under various assumptions.

Policy Options

The policy options described below are offered under an assumption that the Montana Transition Advisory Committee is interested in exploring new options and policies to bring a benefit to the smaller electricity consumers. This effort has not focused on analyzing Montana's current policies.

Although the study focuses on policies that might not take effect until after 2006, and Montana has developed a structure to serve small default consumer loads through that time, it is not too early to develop new policies to take effect after 2006. The opportunity to discuss and analyze these policy options in a non-crisis atmosphere is valuable. The policy certainty that gives market players the time to prepare and plan for how they will participate in the post 2006 structure is also valuable.

The policy options described below are grouped into three major categories, with a number of additional, over-arching policy options described as well. The three major groupings of policies are:

I. Stimulate the retail market. Leave all segments of the market fully open to competition.
II. Recognize a longer transition for some customer groups than originally expected. Apply new, aggregation-based approaches to serving small customer loads.
III. Pull back from competitive markets for Montana customers. Explore means to involve government more fully in the provision of retail electric service.

There may be some overlap among these three sets of policies. However these categories are offered for discussion and organizational purposes. In addition to the three areas listed above, several potential policies stand on their own, or overlap all three of these areas. The first policy option is one of the over arching policies.

I. Stimulate the retail market. Leave all segments of the market fully open to competition.

The first set of policy options explores several means to stimulate the market for the smaller customers. It is based on the following three assumptions:

Some change to the existing system is warranted.

Competition is achievable for all customer classes. However, to overcome economic barriers of high marketing costs and relatively low savings for small customers, some incentives are required.

Competition, with incentives, is achievable for the small customers on an individual basis, rather than on an aggregated basis.

A. Offer an incentive to customers who switch to a new electricity provider.

As described above, one of the major barriers to large scale switching has been the relatively low electric rates in Montana (in comparison to those in other regions of the country) and the relatively small dollar savings that have been available to customers.

One means to counter this barrier is to give customers a financial incentive to switch to an alternative provider, much as many telecommunications providers currently do with incentive checks of $75 to $200. Electric marketers have not been able to offer incentive checks equivalent to the telecommunications providers. However, the incentive appears to achieve the objective of convincing people to switch to a new provider.

Montana could offer a customer incentive designed to convince customers to switch providers. If small customers switched to a new electricity provider they could receive a check. The funding for this incentive could come from a small

payment, structured like the Universal System Benefit Fund, on each customer's bill.

Connecticut considered, and almost passed, this incentive during the 2002 legislative session. Ultimately, this approach was rejected as too burdensome for the standard offer default service customers who paid for the incentive.

B. Raise the standard offer price now given to customers who do not switch providers.

In their efforts to provide an immediate benefit and protections to consumers, most states either froze or mandated a reduction in electric rates, creating a low default service price. This low price has had the effect of (1) protecting consumers with low rates and (2) making it difficult for competitors to beat the low, and stable, price. The default service provider has passed through its cost of power procured at wholesale. Marketers must compete against these wholesale prices, yet they still face marketing costs, described above.

One option to stimulate competition is to raise the default service price in order to create room for the marketers to both beat the default service price and sell power at more than the wholesale cost of energy. Such a rate structure would take into account a set of costs, such as retail marketing, that marketers must incur that the existing default supplier does not incur. Montana policymakers must find a balance between the two strategies of either raising electricity prices to encourage competition, or keeping prices low to protect consumers' household budgets.

C. Revise rules for customers moving on or off the standard offer.

A transition to a new market must strike a balance between encouraging companies or people to switch to a new competitive provider, and offering a safety net for those customers to return to should their competitive option not meet their needs. The rules governing leaving and coming back to the standard offer default supply offer this safety net, if customers are allowed back to the regulated service at a predictable rate. Such a safety net may give customers the confidence to know that they can return to the standard offer default supply in the event their competitive supply fails them. It is not desirable, particularly from the standpoint of the default supplier, however, to see customers entering and leaving default supply several times during the year. The default supplier is forced to maintain sufficient power reserves, and pay for those power requirements, to cover the unpredictability of customers leaving or coming back to the standard offer.

Montana currently allows customers to leave the default supply and to return to default supply. Upon returning, however, the customer is required to stay on default supply for one year before re-entering the competitive market. This

requirement is in place to allow the default supplier to effective adequate plans to meet its load.

The requirement that the returning customer stay on the standard offer for one year may have a dampening effect on the competitive market, by keeping customers who might otherwise buy from a competitor from doing so. Montana might consider two alternative approaches.

Charge customers to come and go

One approach is to allow customers to come and go from the default supply at will, but to charge them for the privilege of doing so. Such a charge could be structured to approximately compensate the default supplier for the costs that it incurs for meeting the needs of these customers.

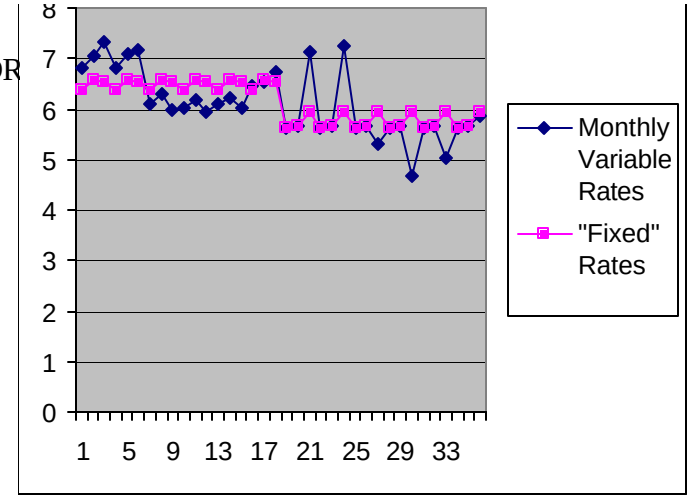
Maine allows customers to go and to come as they please, but charges them the two times the average of their previous two months bills. The default supplier collects the two months of charges. Although Maine officials acknowledge that this may not be the exact, precise amount that they should be charging, they assert that it has had its desired policy effect – to allow customers to come and go from standard offer service while also offering some compensation to the default supplier.

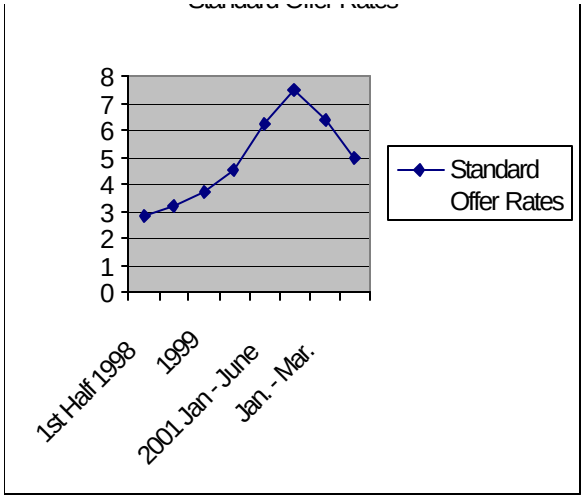
Establish a new rate for customers who have left

Montana could establish a second, regulated rate class that more closely follows the market prices. Such a rate class would be modeled after an approach adopted in Massachusetts. Massachusetts forbids customers to return to the default, standard offer service once they have left it, and instead places them in a different service class that they call default service. Massachusetts' default service tracks market prices based on a forward curve of the market (predictions of future prices). It does not offer the stability of the default service price.

Default service is the form of generation service that is available to those customers who are not receiving service from a competitive supplier and who are not eligible for the regular default service because they have left that service or have moved within or into the service territory. As such default service acts as a "generation service of last resort."

In Massachusetts, there are two pricing options available to default service customers: (1) a variable pricing option in which the price changes monthly; and (2) a fixed pricing option in which the variable monthly prices are averaged and remain constant for six-month periods. Customers have the option to choose either of these default service options, depending on their





risk tolerance. For illustration, the contrasting prices are listed below. The chart on the left illustrates the default service pricing in its two forms, variable and 6-month-fixed. The chart on the right illustrates the standard offer price. Standard offer pricing will be phased out in 2005. Note that as it gradually rises, customers will be encouraged to move off the standard offer and towards competitive offerings. The steep rise in both prices in 2001 reflects fast-rising wholesale prices at the time, which were passed through to some degree in these rates as they were adjusted every year or six months.

In this policy option, there would be three generation service options available to consumers: (1) competitive generation service, provided by competitive suppliers; (2) standard offer service, provided by distribution companies; and (3) default service, also provided by distribution companies. The price that the customer pays for generation service is dependent on the type of service the customer is receiving.

D. Treat new customers differently from old customers

New customers to the default provider can be treated differently from existing customers. Two options are possible:

a. Place new customers in a rate class that more closely tracks the market (described above) based on a forward price curve. This class would not offer the rate stability of the default service price, although it could be capped.

b. Require new customers to make an affirmative choice of provider when they sign up for electric service. This choice would consist of any competitive offerings, as well as the standard service offered by the default service provider or the market-based rate described above.

E. Finalize rules for information disclosure.

Uniform disclosure of price, fuel source and environmental information provides a way for consumers to compare the competitive products being offered to them on a consistent basis. Disclosure also gives consumers of monopoly electricity providers the opportunity to understand how their power is generated. It becomes particularly important when marketers make claims that the products they are offering have "green" attributes. Since one of the main ways in which marketers have tried to distinguish their products is to make "green" claims, this can be important.

Disclosure can be used in monopoly or in competitive markets, although it is viewed as primarily an *educational* tool for consumers in monopoly markets. In California, where few small consumers moved to a competitive provider, a recent study showed that well over half of the consumers who had received a product disclosure label did not realize they had received it. This experience would imply only limited use of disclosure if markets are not competitive.

The Commission began an effort to establish disclosure rules. One option is to focus on these rules in more depth and to make certain that they are complete.

F. Examine possibilities for advanced metering through a pilot program

One critical issue that many states and the utility industry have yet to fully resolve is the flow of information (and use of information) from the customer to the power supplier or wires company and back. A detailed understanding of the electricity usage patterns can help the power companies to design systems that take into account when the system is under most stress. Advanced metering also allows power providers to better manage demand, and to offer incentives to customers to strategically reduce demand. And when accompanied by price signals, advanced metering allows customers to shift their load from expensive, peak periods to less expensive and more efficient off-peak times. There are two types of policies for metering: real time metering and time of use metering. Each has different costs, and different benefits.

Real time metering is generally used for the large customers, and allows those customers to adjust their electricity usage very quickly – often several times a day – to take into account changing electricity prices. The prices that customers with real time meters pay for power change in tandem with wholesale electricity markets.

Real time meters are of benefit to customers who have an incentive to watch their electricity prices closely – those customers who use a great deal of electricity. They may be of less use to smaller customers, given the smaller economic value of adjusting very small electric loads. Real time meters cost approximately $200 each.

Time of use programs are described in more detail below, but may involve advanced metering. As an example, Puget Energy in Washington State, uses a time of use metering program for its residential customers. These customers receive feedback on their usage, and can adjust their usage according to that feedback – and according to rates that are higher during peak times and lower during off-peak times. Meters for this type of time of use program cost considerably less than the real time meters – approximately $85 dollars installed, or less if the meters are leased rather than sold. The Puget program has prompted a shift of between five to ten percent from on to off-peak times.

Although the costs of real time meters are high, a market may yet exist for such a service. An option to consider is to test the market for real-time meters for smaller customers through a pilot program. This pilot program would address a number of issues, including:

a. *Who pays for the meters*
b. *Who owns and controls the information that the meters produce*
c. *How much different classes of customer will use such information*
d. *Whether the information generated by real time meters and real time pricing offers a benefit to different segments of Montana consumers.*
e. *Whether such information can be used to stimulate greater demand response, rather than the standard, averaged electric rates that most consumers currently pay.*
f. *How best to structure a real time pricing program. Should it be combined with a safety-net cap on rates to assure that they do not increase too much in a short period, for instance.*

II. Recognize a longer transition for some customer groups than originally expected. Apply new, aggregation-based approaches to serving small customer loads.

The second set of policy options explores strategies to bring benefits to small electricity customers through means other than individualized, customer-by-customer retailing. It makes four assumptions.

Retail competition, structured in a way in which the smallest customers would be approached on an individualized, customer-by-customer basis is unlikely to attract marketers in the near term, nor is it likely to attract a great deal of interest on the part of the small customers themselves.

The retail market will not stimulate private aggregators for the small customers because of the costs of doing so.

Aggregating, or putting customers and customer load together in large groups, offers a way to reduce marketing costs and reduce what customers are required to do in order to switch providers, to a minimum.

For some options below, choice of product, if not always choice of product provider, is a desirable goal. Choice of provider either fits, or does not fit, into each of these options; these options can be structured to either shut down the competitive market for small customers, or to leave it open.

A. Offer a regulated portfolio of choices to small consumers.

The experience to this point has shown that small customers approach the idea of competition differently from the large customers. Not only are their usage patterns different, but the volume of their usage is different, and reaction to prices is different. In general, the smallest customers have tended to ignore the competitive possibilities put in front of them, and few marketers have tended to market to those small customers. Large customers have tended to switch in greater numbers. It is possible that different markets require different policies.

One policy option that presents itself as a result of this pattern in the small customer markets is to offer small customers a choice of product, but not a choice of provider. One state, Oregon, has developed a model that Montana might consider following. The Oregon model works as follows:

Oregon utilities had not sold their generation or wires property. As a result, the choice of default supplier was relatively clear. *In this option, Montana would need to designate a default supplier, or selected it in another manner described in the next policy option, below.*

Small customers do not have the ability to choose a new provider; large customers do have that ability, although they have tended thus far to stay on either a variable-rate utility plan or on a fixed tariff. *Montana could follow this model, or could leave the market open for customers to choose another provider. Leaving the market open would tend to increase the risk to the default supplier; a stable and predictable load will tend to reduce risks and overall costs in the near term.*

Oregon has approximately 1,200,000 customers who are affected by the portfolio. Small customers have the option of choosing from four or five products, depending on which utility serves them:

a. *The Fixed Renewable Option*, through which customers pay a surcharge of $3.50 over their basic service rate to buy renewable power in 100 kWh blocks. The two programs under this option are run by the utilities, and are outgrowths of their previous green energy programs. The funding that the extra charge generates goes towards

acquisition of new renewable resources. In Oregon, this option is run by the utilities.

As of August 1, 2002 approximately 9,000 customers had signed up for this option.

b. *The Renewable Usage Option*, which is billed at a per kWh rate of an additional 0.8 cents per kwh, means that all of the kilowatt-hours that a customer purchases are green. The standard that the Oregon Public Utilities Commission set was that 50% of the resource must be renewable, of which 15% must be new renewable. The remaining 50% must meet carbon and emissions standards. In practice, all of the resources represented under this option are renewable. The provision of this service and marketing of the service were competitively bid out, with Green Mountain Energy selected to market and provide the service.

   As of August 1, 2002 approximately 10,500 customers had signed up for this option.

c. *The Habitat Option* is structured similarly to the Renewable Usage Option (above) but with an extra charge of 0.99 cents per kwh to support fish habitat restoration.

   As of August 1, 2002 approximately 4,200 customers had signed up for this option.

d. *The Time of Use Option* offers per-kilowatt-hour prices that vary depending on the time of day. As an example, on-peak is defined as between 3:00 and 8:00 PM in summer and 6:00 am to 10:00 am /5:00 to 8:00 PM in winter, on weekdays. Portland General Electric, an investor owned utility, offers this option. The generation component of the rates for on, off, and mid-peak service are as follows:

On Peak:	7.751 cents/kWh
Mid Peak:	4.651 cents/kWh
Off Peak	2.843 cents/kWh

   These rates are for generation service only. An additional charge of approximately 2.596 cents/kWh charge is assessed for transmission and distribution, as well as a fixed customer charge of $10 or $16.

Because electricity is more expensive to produce during the day, at peak hours, the electricity system and customers can benefit if customers shift their usage from on to off peak periods. Depending on

the generation mix, (i.e. which power plants are used at what time of day, and their emissions profile) this pricing program can also reduce emissions into the air, if the generation used at peak periods is dirtier than the generation used during off-peak periods. Finally, it also has the potential to increase energy efficiency if people reduce their overall usage – rather than shift all their usage to later periods of the day. This option requires installation of advanced meters.

As of August 1, 2002 slightly more than 3,000 customers had signed up for this option.

e. *The Monthly Market Option* is offered only by Pacific Power & Light. If gives customers a price that varies each month, over a 12 month period. Customers sign up for the option and are given a year-long, monthly list of prices that they will be paying. Pacific Power & Light develops those prices based on a forward price curve. Customers commit to stay with this program over the course of the 12 month period.

As of August 1, 2002 1,432 customers had signed up for this option.

In general, interviews with various parties, from consumer advocate to power marketer to utility to utility commission indicate a positive impression of Oregon's program.

Montana could adopt a variation of the Oregon program, taking advantage of the lessons from the program. These include:

a. Most parties in Oregon agree that there may be too many products offered. Instead of five products, Montana might consider reducing the total number of products to two to three. Oregon's initial legislation indicated that the utilities should offer a basic generation (similar to standard default supply) option, an environmental option and a market based option. Oregon's combination of three environmental options shows in part the history of utilities that did not want to end their own renewable "green pricing" programs, as well as a particular interest in fish habitats.

b. In order to assure ongoing analysis and input into the program, establish a committee to oversee and make recommendations to the Commission on the direction of the program, products to be offered, contract terms etc. Consider having the members of this advisory committee appointed by a combination of the governor and House and Senate.

c. Use competition in delivering these services where possible. Oregon elected to have the utilities bid out the privilege of marketing and delivering two of the three green products. The result has been a collaborative agreement between the marketer that won the bid, Green Mountain Energy, and the utilities. This element of the program brings a new party to the delivery of products to the marketplace, with a bottom-line incentive to make the program work. It also provides a safe environment in which a marketer may be able to test new products. As a program develops, it may be possible to bring in new marketers to offer products through this regulated program.

d. Montana's load is smaller than Oregon's, which may influence the degree to which the program may be transferred to Montana. Marketers have in previous situations indicated that a load of at least 30,000 customers is necessary to make their investment in a new territory worthwhile. Montana load is well beyond that level.

e. Monitor and evaluate the program on an ongoing basis in order to be able to change it as circumstances warrant.

f. Another option for Montana to consider would be to have the renewable product subject to less price volatility than a fossil-fuel-based product. Such a price guarantee is possible in a regime in which there are no fuel costs. It may also serve to attract more customers to the product option. Customers would be, in essence, paying more not only for the renewable product, but also for price security.

B. <u>Bid out the privilege of supplying default consumers.</u>

If the assumption remains that marketers will not actively market on a retail customer-by-customer basis to small customers, it is still possible to bring competition to the market by putting the load of these customers out to bid. The default suppliers, in other words, can be chosen through competitive means. Oregon, in the program described above, chose to designate a default supplier. This approach has been used with some success in Maine. This option involves the following steps.

The utility commission, acting on legislative authority, puts out for bid the load of several customer classes. In Maine, the Commission put out for bid the residential and small commercial loads, the large commercial and the industrial loads. Competitive suppliers bid for the privilege of serving those loads, and respond in their bids with price and terms for how they will serve the load. The Commission either accepts or rejects the bids, although it may also elect to narrow the number of bidders, and negotiate with the remaining small number of bidders.

The accepted bids are not subject to a contract-by-contract prudency review. The marketer, by submitting, and agreeing to, a bid price is then tasked with the job of assuring that it can deliver at that price. It is assumed that the marketer has developed a portfolio of not only generation, but also financial hedges to assure that it will be able to deliver on its proposed price.

The Commission reviews the bids that marketers submit to it. In Maine, the Commission hired a consultant to help analyze the bids during the initial years, but now has gained enough expertise that it does not need outside assistance. It remains a significant task for the Commission, over a period of approximately four months for three to four people.

Winning bidders are bound by force of law to deliver upon their promised bid. They do not sign a contract with the Commission in Maine, since the flow of dollars does not involve the Commission.

The distribution utility can bill and collect – and charge a fee for such service to the marketer. As an alternative, the marketer could bill and collect, while charging a fee to the utility for such service.

This policy option does not necessarily shut down the ability of small consumers to choose an alternative provider; the ability to choose can co-exist with this approach.

This policy option also may be combined with Option A, described above, in that the competitive default supplier could be required to offer a portfolio of specific products.

This option differs significantly from the approach taken to the default supply portfolio in Montana. In the Montana approach, Northwestern Energy was designated as default supplier and required to assemble a portfolio of resources for the Commission to review, contract by contract. In the competitive default supply option, the default suppliers are selected based on the price that they offer and which the Commission accepts (perhaps after negotiation). The supplier is responsible for meeting the price and no contract prudency review takes place. The Commission's role is very different in this competitive situation.

C. Authorize opt-out aggregation.

Opt out aggregation allows a municipality, county or other local branch of government to assemble the electric load of all or a part of the customers within its jurisdiction, and bid that load out to the best bidder. The citizens of the municipality, township, county or other government aggregator are assumed to be part of the buying group unless they affirmatively say that they do not want to be part of the group. The citizens of the municipality have the opportunity to

participate in the process that determines whether or not the town will act as an aggregator. They then have the opportunity to either participate, or not participate, in the aggregated group. Usually they would do so by returning an opt-out postcard within, for instance, 21 days. Opt out aggregation is a low-cost way to pool the buying power of a large number of customers because of the low marketing costs involved in signing up a large group of customers.

Opt-out aggregation is distinct from opt-in aggregation, in which an aggregator, such as church, a union, a not-for-profit or a for-profit group arranges a power purchase on behalf of its members. Such aggregation requires the church, union or other aggregator, to persuade each customer to affirmatively agree to be a part of the buying group. Montana law currently allows opt-in aggregation.

Opt-out aggregation is also different from municipalization, in which a municipality either generates or purchases power in order to sell it to customers within the geographic boundaries of the municipality. However in opt-out aggregation, the transaction and payments are between a power marketer (selected by the government aggregator) and individual customer. The government is neither buyer nor seller.

Opt-out aggregation has been successful in both Massachusetts and in Ohio at pooling the load of a large number of customers (approximately 45,000 in a Massachusetts pilot program and over 400,000 in Ohio). These customers have received discounts ranging from approximately two percent to approximately 15 percent. The customers receiving the smaller discounts also bought a product that included some "green" component, which had the tendency to reduce the size of the total discount.

State law must authorize opt-out aggregation because of its negative check-off element; without direct authorization local governments cannot institute the negative check-off. Three states have enacted such a law: Ohio, Rhode Island and Massachusetts. Rhode Island enacted its law as part of an overhaul of its 1996 restructuring act, in the 2002 session.

Advantages:

?? Opt-out aggregation dramatically reduces marketing costs for power marketers, and dramatically reduces the number of steps that a consumer must take in order to participate in the competitive market. For both of these reasons, it has the effect of minimizing the fundamental economic hurdle facing small commercial retail markets.

?? Opt-out aggregation can pool complementary electric loads. Aggregation can apply not only to the smallest consumers, but can combine the loads of the low income, government, commercial or even industrial loads as well. This has the effect of smoothing the demand for power through the day or season,

thus enabling the small customers with a poor load factor (i.e. those who use relatively little electricity and use it primarily at the peak periods) with those who have a better, or complementary, load factor. The net effect can be to reduce the contracted price for power.

?? Opt-out aggregation can offer an element of local control over electricity purchases. Although a retail competition model in which individual customers purchase power on a customer-by-customer basis from marketers offers the ultimate in choice, opt-aggregation can provide move the decision-making process closer to the ultimate consumer. Consumers can express their preferences to the local government officials who structure the request for proposals and bids with electricity suppliers.

Disadvantages

?? Opt-out aggregation does not offer the ultimate level of choice that the customer-by-customer model of retail restructuring offers. It is instead a model in which customers are switched to a new provider. Experience from Ohio shows that even though the aggregator may make best efforts at contacting and informing each customer of the need to send in a postcard or vote in an election on aggregation, some customers will still not understand what is happening until after they have been switched.

?? Opt-out aggregation requires expertise. It is not without costs to the aggregator. The opt-out aggregation efforts in Ohio and Massachusetts have required local governments to hire consultants to help them evaluate bids, and to devote considerable time to developing requests for proposals. Montana may be in an advantageous situation because the League of Cities has both experience and expertise in negotiating and evaluating bids for electric service.

?? Aggregation, if successful, will have the effect of quickly separating more large groups of customers from the default supply. If the remaining customer base is characterized by a worse load factor than those customers who left, aggregation could have the effect of raising prices for the remaining customers.

D. <u>Re-examine how the decision is made as to when and whether to phase out the above options.</u>

Montana has set a date certain at which the current portfolio assembled by Northwestern Energy is set to end, and had previously set another date certain. The state may elect to continue to rely on setting a date, regardless of circumstances, or it could set a set of conditions for the

Public Service Commission to evaluate as to whether the market should be opened for retail competition.

III. Pull back from competitive markets for Montana customers. Explore means to involve government more fully in the provision of retail electric service.

The third set of policies offers means to further involve the government – defined as either the state or as local or county government – in the provision of power to Montanans. It relies on the following three assumptions.

The competitive market will not result in meaningful competition for the small electricity consumers.

Local control is important to the power industry.

Private interests will not provide the benefits to Montana consumers that a public, Montana-based organization would provide. The private, investor-owned model for the power industry offers too much of a short-term view of the investments needed in the industry. Government involvement will shift the investment focus to an outcome based on longer-term investments that benefit Montana.

A. Establish a state commission to buy or condemn hydro resources.

This policy is based on the Buy the Dams initiative that will shortly be before the voters in Montana. Placed in a national or regional context, this is one of a number of proposals to increase public ownership of utility assets. In Oregon, for instance, there are two proposals to issue public bonds to buy the assets of Portland General Electric. One option is that the City of Portland would buy the assets; the other is that a consortium of counties would do the same. Option B, described below, is similar.

Rather than describe the initiative, NCSL will discuss some of the issues that such a proposal brings up. This list of issues is not meant to be exhaustive, but is meant to provide perspective. Less time is devoted to this initiative, since it is beyond the control of the Legislature.

Local control

An initiative that allows the state to own and control dams will give the state greater control over these hydro resources for uses beyond simply power generation.

Control over generating assets

State control over generating assets provides a physical hedge against volatility in energy prices. If natural gas prices rise, as they did in 200-2001, the cost of those hydro resources is not affected. The price of power coming from these assets is also not subject to the wholesale electricity markets. This is good if the wholesale markets are high, but may not be advantageous if wholesale electricity prices move below power rates coming from the dams.

Amount of load covered by the dams

The generation from the dams will cover XX percent of the total Northwestern Energy load in Montana, if they run at their full capacity. This leaves some exposure to other markets – whether long term power contract market or the spot market.

Hydro is subject to drought, and may force a move to spot markets

Although hydro resources can be relatively inexpensive, a year of drought can cause difficulties. The public utility districts in the Pacific Northwest that experienced rate increases of over 30 percent were hydro dependent in 2000-2001. The drought forced them on to the western power market to buy power at high spot market prices at precisely the time they did not want to be there. Unfortunately, a year of drought (or one in which the new power authority in charge of the dams could be forced to be on the wholesale market) also tends to be a time of high prices. Good water years result in a good hydro resource – and low wholesale prices.

An initiative to buy the dams brings with it significant potential benefits, but also carries some risks.

B. <u>Establish public power districts to build or buy generation for Montana use.</u>

Like the initiative to buy the dams in Montana, a policy that would establish public power districts is similar to new initiatives in a number of states to bring a greater degree of local control to the power industry. Such an effort could focus not only on purchasing existing hydro assets, but also on new generation or on facilities beyond hydro. The state would need to authorize formation of such entities.

IV. Over-arching Policies

In addition to the policies described above, several policy options are that do not fit neatly into any one of the above categories. These could be enacted in combination with any of the above policies.

Policy Option 1. Energy Planning and Priority –Setting

A. *Establish a one-time or ongoing energy planning effort.*

Throughout the interviews and discussion with various parties involved in Montana's energy industry (whether as advocate, industry representative, policymaker or consumer), NCSL has noted a lack of consensus over the state's energy policy priorities in the long and short term.

An energy plan and planning process might serve as one method for the state to establish planning priorities to guide industry, state agencies and policymakers in their long term decision making process. An energy plan may address the following non-inclusive list of issues, among others.

- ?? Will the state set a priority on developing certain resources, such as in-state coal or renewable energy?
- ?? Will the state make a priority of encouraging competitive energy markets?
- ?? Will the state encourage energy efficiency programs in public and private facilities, and through what means will it do so.
- ?? How will the state marry economic development with energy use, prices and infrastructure development?
- ?? What long term opportunities exist in certain new technologies such as distributed generation.
- ?? What long term issues might the state need to address in planning for new air quality regulations as they affect the energy industry.
- ?? What long term issues must the state address with regard to gas supply availability.
- ?? What long term issues must the state address with regard to electric transmission.

Several states now have energy plans in progress, or have developed such plans. If given sufficient authority, an energy plan can be a useful guide for both policymakers and industry. It also can serve as an important long-term planning exercise and document that would assist in identifying long to medium term risks to the energy system, as well as potential solutions.

Energy plans are generally developed by state agencies, including the Commission, the Department of Environmental Quality and sometimes the Transportation and Economic Development offices. Such plans are generally developed using a mixture of public input with detailed analysis.

B. Establish a renewable energy portfolio standard

The renewable portfolio standard is a requirement placed on any retail seller of electricity, whether a utility or marketer, that a specified percentage of the kilowatt-hours that it sells shall come from renewable energy sources. Percentages vary from one or two percent (particularly for portfolio standards that specify reliance on solar energy, which tends to be more expensive), and up to 30 percent in Maine. Maine already relies on renewable energy for more than 30 percent of its generation, so this was a means of preserving the use of in-state resources. California recently passed a 20 percent portfolio standard, and typical percentages range from between five and 15 percent, usually phased in over a period of several years. Fourteen states have a portfolio standard in place.

Issues to consider with the portfolio standard

Percentage required: What percentage of the retail load should be served with renewable resources? In general this decision is based on an ultimate goal of what the renewable energy potential is in the state, and the costs of meeting some percentage of that load with renewable resources.

New load or existing load covered: It is possible to structure a portfolio standard to cover only new, load growth. This option does not integrate renewable resources into the grid as quickly as would an option of an immediate or phased-in requirement. It does, however, allow slower adjustment period for the providers.

Covered entities: It is possible to structure a portfolio standard to cover only certain entities, such as investor owned utilities, default suppliers, rural cooperatives etc. Rural cooperatives that secure their power from Basin Electric or other Generation and Transmission cooperatives would need to examine their long-term power supply contracts, or to use the "green tags," described below.

Covered resources: In general, a portfolio standard covers solar, wind, biomass and sometimes geothermal resources. In occasionally will allow small hydro, and hardly ever large hydro.

"Green tags:" Green tags are a new, market based system that allows the retailers upon whom the portfolio standard burden falls to avoid having to immediately build new renewable energy facilities, but instead allows the retailers to purchase credits for sale from other renewable energy facilities and providers. Thus the credits may not immediately result in new renewable energy facilities built in Montana, but would instead result in resources built in the western power grid. The credits may be the least expensive means to structure a portfolio standard, since they take advantage (in theory) of the most cost effective and best resources available. Because of Montana's relatively good wind resources it is likely that this would result in new resources built in Montana. Oregon

allows the use of green tags for the green products in its portfolio, described above.

Penalties: Penalties for non-compliance with the portfolio standard are one way that states have assured compliance with the standard. In general, the penalties have been set at a level that is higher than the cost of complying with the standard. Setting penalties below the level of the cost of compliance encourages non-complying entities to pay the penalty rather than build or purchase new renewables.

Phase-in Period: Portfolio standards are typically phased in over a period of five to ten years.

Cost: The Texas portfolio standard is estimated to cost approximately five cents per month per customer. The Energy Information Administration estimates that the portfolio standard implemented on a national, 10 percent basis, would result in "small" cost increases. This study also indicated that the increased demand for renewable energy would offset demand for natural gas, thus relieving pressure on natural gas prices. The cost of a portfolio standard depends in part on its structure, but largely on the renewable resources available in the state. States, including Montana, with good quality wind or other resources are likely to see small cost effects of the standard. NCSL has not performed a detailed cost analysis of the standard in Montana.

The portfolio standard is a mandate: Some states have rejected the idea of a portfolio standard because it is a mandate on retail providers. Others point out that while it is a mandate, it is imposed equally upon all electricity providers.

C. Establish specific support for small scale, distributed generation.

TO BE COMPLETED

D. Develop new support for energy efficiency in state facilities.

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