



**Information Disclosure  
and Labeling  
for Electricity Sales:  
Summary for State Legislatures**

**CONSUMER INFORMATION DISCLOSURE SERIES  
National Council on Competition and the Electric Industry**

**April 1999**

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## Foreword

The National Council on Competition and the Electric Industry (National Council) is a joint venture among the National Conference of State Legislatures (NCSL), the National Association of Regulatory Utility Commissioners (NARUC), the National Association of State Energy Officials (NASEO), and the Federal Energy Regulatory Commission (FERC). The National Council was formed in 1994 to facilitate collaboration between state legislatures and state regulators in an effort to better protect the public interest as the US electric power sector is restructured. To accomplish its mission, the National Council conducts research and outreach activities that stimulate expanded communication and information exchange among state officials. The Council's outreach activities include participation in the NCSL's technical assistance to state legislatures, organizing and participating in workshops and conferences, publishing a Newsletter, coordinating with other state organizations and maintaining a Web site.

In November 1997, the National Council initiated its Consumer Information Disclosure Project to assist state legislatures and regulators with addressing consumer information needs in a competitive electricity environment. This effort followed on the heels of NARUC's November 1997 resolution calling for enforceable, uniform standards that would allow retail customers to do comparison shopping for their electricity purchases. To help implement this NARUC resolution, the National Council began a comprehensive information disclosure project. With input from the Federal Energy Regulatory Commission, Department of Energy, Environmental Protection Agency, Federal Trade Commission, Food and Drug Administration (FDA), Securities and Exchange Commission, Federal Reserve Board and Energy Information Agency (EIA), the National Council designed a multi-part research effort to identify and provide to state regulators and legislatures (technical information, consumer research and policy options).

The research project consists of more than a dozen specific tasks, focusing not only on customers' desire for information, but how the information customers want to see can be developed, and how that information can be conveyed effectively. The research also solicited input on information disclosure from a broad variety of other stakeholders including utility and non-utility suppliers, customer representatives, environmental organizations, utility regulators and other policy makers.

Summaries of the National Council research reports are included as Appendix F. Full text of reports can be found at the National Council at <http://eande.lbl.gov/NationalCouncil> or at the website of the Regulatory Assistance Project (RAP) <http://www.rapmaine.org/disclose.html>.

## Executive Summary

The electric industry is going through major changes across the country. In many states, the industry is being restructured to allow suppliers of electricity to compete for retail customers. This competition for retail customers signals a major change in the relationship between electricity suppliers and their customers. As monopolies give way to competition, state regulation will diminish and the products offered by electricity suppliers will be shaped by the forces of the competitive marketplace. In the restructured environment, retail electricity customers, rather than regulatory commissions, will largely determine what services are provided, how much those services will cost and what sorts of power plants will be built.

The more informed customers' purchasing decisions are, the better the market will work - for both customers and suppliers. Customers will have the facts they need to make informed decisions through a combination of disclosure and labeling. How do these two concepts work together? The information suppliers of electricity must provide to retail customers is the information that must be **disclosed**. **Labeling** is how suppliers convey this information to customers.

Consumer research has verified not only the importance of disclosure and labeling but also the need to have common labeling formats across states and regions. For this to happen, it is up to state legislatures to include provisions for regional and uniform disclosure and labeling standards in restructuring legislation. If legislatures do this, **customers will be able to comparison shop and purchase from suppliers who deliver the product(s) they want, consumer protection is enhanced, and the electricity market will be more efficient.**

The sample label below is an example of how disclosure requirements can be put into a format that customers can use and understand.

## Electricity Facts

| <p><b>Generation Price</b></p> <p>Average price (cents per kWh) for varying levels of use. Prices do not include regulated charges for delivery service.</p>           | <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th style="padding: 5px;">Average Monthly Use</th> <th style="padding: 5px;">250 kWh</th> <th style="padding: 5px;">500 kWh</th> <th style="padding: 5px;">1000 kWh</th> <th style="padding: 5px;">2000 kWh</th> </tr> <tr> <th style="padding: 5px;">Average Generation Price</th> <td style="padding: 5px;">5¢</td> <td style="padding: 5px;">4.5¢</td> <td style="padding: 5px;">4¢</td> <td style="padding: 5px;">3.5¢</td> </tr> </table> <p style="font-size: small; text-align: center;">Your average price will vary according to when and how much electricity you use. See your most recent bill for your average monthly use and Terms of Service or your bill for the actual prices.</p> | Average Monthly Use       | 250 kWh  | 500 kWh                   | 1000 kWh | 2000 kWh                  | Average Generation Price | 5¢    | 4.5¢ | 4¢                   | 3.5¢ |                    |    |       |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------|---------------------------|----------|---------------------------|--------------------------|-------|------|----------------------|------|--------------------|----|-------|------|
| Average Monthly Use                                                                                                                                                    | 250 kWh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 500 kWh                   | 1000 kWh | 2000 kWh                  |          |                           |                          |       |      |                      |      |                    |    |       |      |
| Average Generation Price                                                                                                                                               | 5¢                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4.5¢                      | 4¢       | 3.5¢                      |          |                           |                          |       |      |                      |      |                    |    |       |      |
| <p><b>Contract</b></p> <p>See your contract or Terms of Service for more information.</p>                                                                              | <ul style="list-style-type: none"> <li>• <b>Minimum Length:</b> 2 Years</li> <li>• <b>Price Changes:</b> Fixed over contract period</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |
| <p><b>Supply Mix</b></p> <p>We used these sources of electricity to supply this product from 696 to 697.</p>                                                           | <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="padding: 5px;">Coal</td><td style="padding: 5px;">40%</td></tr> <tr><td style="padding: 5px;">Natural Gas</td><td style="padding: 5px;">20%</td></tr> <tr><td style="padding: 5px;">Nuclear</td><td style="padding: 5px;">15%</td></tr> <tr><td style="padding: 5px;">Hydro</td><td style="padding: 5px;">10%</td></tr> <tr><td style="padding: 5px;">Solar, Wind, Biomass</td><td style="padding: 5px;">10%</td></tr> <tr><td style="padding: 5px;">Waste Incineration</td><td style="padding: 5px;">5%</td></tr> <tr><td style="padding: 5px;">Total</td><td style="padding: 5px;">100%</td></tr> </table>                                                                               | Coal                      | 40%      | Natural Gas               | 20%      | Nuclear                   | 15%                      | Hydro | 10%  | Solar, Wind, Biomass | 10%  | Waste Incineration | 5% | Total | 100% |
| Coal                                                                                                                                                                   | 40%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |
| Natural Gas                                                                                                                                                            | 20%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |
| Nuclear                                                                                                                                                                | 15%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |
| Hydro                                                                                                                                                                  | 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |
| Solar, Wind, Biomass                                                                                                                                                   | 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |
| Waste Incineration                                                                                                                                                     | 5%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |
| Total                                                                                                                                                                  | 100%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |
| <p><b>Air Emissions</b></p> <p>Nitrogen oxides (NOx), sulfur dioxide (SO<sub>2</sub>), and carbon dioxide (CO<sub>2</sub>) emissions relative to regional average.</p> | <table style="font-size: small; margin-top: 5px;"> <tr><td>NO<sub>x</sub> Emissions</td><td>~80%</td></tr> <tr><td>SO<sub>2</sub> Emissions</td><td>~120%</td></tr> <tr><td>CO<sub>2</sub> Emissions</td><td>~40%</td></tr> </table> <p style="text-align: right; font-size: small;">Regional Average</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NO <sub>x</sub> Emissions | ~80%     | SO <sub>2</sub> Emissions | ~120%    | CO <sub>2</sub> Emissions | ~40%                     |       |      |                      |      |                    |    |       |      |
| NO <sub>x</sub> Emissions                                                                                                                                              | ~80%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |
| SO <sub>2</sub> Emissions                                                                                                                                              | ~120%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |
| CO <sub>2</sub> Emissions                                                                                                                                              | ~40%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |          |                           |          |                           |                          |       |      |                      |      |                    |    |       |      |

## **Introduction**

Customer choice of electricity is becoming increasingly commonplace as states across the country enact legislation allowing retail customers of electricity to choose their own suppliers. Where competition exists, customer decisions rather than regulation will largely determine what services are provided, how much those services will cost and what sorts of power plants get built.

For customers to be able to choose the products they want, they need to have the means to compare price, price variability, environmental characteristics and resource mix. Not only does this make good sense, early experiences with retail pilot projects and consumer research confirm that customers are looking for the means to make comparisons across products.

A uniform disclosure and labeling mechanism gives customers an accurate, objective basis for comparing claims among competitive suppliers. Without the common language of uniform disclosure, customers will need to sift through promotional materials that contain claims that can be vague, unverifiable and sometimes misleading. Customers around the country are clear in their interest in avoiding such confusion. Supporting them are The National Association of Regulatory Utility Commissioners (NARUC), National Association of State Utility Consumer Advocates (NASUCA), the Clinton Administration and the New England Governors (see Appendix A for statements of support).

The most important support will come where the details of restructuring actually occur, that is in state legislatures. As part of their restructuring efforts, eight state legislatures -- Nevada, Connecticut, Illinois, Maine, Nevada, Montana, Massachusetts, New Jersey and California -- have enacted legislation requiring uniform disclosure and labeling (see Appendix B for a summary of state actions).

This report is prepared for state legislatures as they consider restructuring legislation or consider making changes to their current legislation. Drawing upon the extensive consumer research efforts of the National Council on Competition and the Electric Industry, the report makes the case for standardized and regional disclosure and labeling and demonstrates that uniform disclosure and labeling are possible and relatively easy to implement. It also provides legislatures with model legislation that, if adopted by each of the states within a region, will initiate standardized disclosure and labeling throughout that region.

## Electricity Information Disclosure and Labeling

### Goals of Disclosure

Disclosing basic facts to retail customers accomplishes three essential goals.

***Disclosure allows customers to comparison shop and purchase from suppliers who deliver the product they want.*** Customers can find the product and services they want at the prices they are willing to pay.

***Disclosure enhances consumer protection.*** Presenting basic information in a uniform format allows customers to compare directly terms and products among competing suppliers with a minimum of confusion. Consumers are less likely to be confused either by complex price offers or by unclear claims and/or mistaken beliefs about environmental characteristics.

***Disclosure makes the electricity market more efficient.*** Disclosure drives prices down and forces competitors to supply the types of products and services consumers want. Suppliers who offer what customers want, at the lowest prices, will be more easily identified and rewarded.

Achieving these goals requires determining what information should be disclosed, what format best conveys the information and where and when the information should appear.

### What information should be disclosed?

Extensive consumer research by the National Council reached the following conclusions:

Consumers want a ***variety of information***, including environmental characteristics, price and consumer protection provisions upon which to base their choice of a supplier.

Of all the factors in their decisions, ***price is usually the most important***. Even though suppliers might use different price structures for different products, consumers want to be able to compare price in average cents per kWh or average total cost, like unit pricing in grocery stores.

***Fuel or resource mix and air emissions information are critical environmental attributes.*** Consumers understand they do not represent the same thing and want to see both pieces of information.

For information to be useful to consumers, it must be ***easy to understand***. This finding underscores the importance of presenting the information in a simple and understandable manner.

**RECOMMENDATION.** The research paints a clear picture of the type of information that retail electricity consumers want and need. Although most



**consumers have little experience in purchasing electricity in a competitive market, they are experienced comparison shoppers and want tools that will allow them to comparison shop for electricity. To be effective comparison shoppers, consumers need basic price, environmental and consumer protection information presented in a uniform, easy-to-understand format by all suppliers.**

### **What price information should be disclosed?**

For customers to compare one price offer against another, they need basic price information, in a common format that reflects the true cost of energy choices. Monthly bills give a basic cost comparison. Requiring monthly consumption and average kWh price for each billing cycle will give an even more complete picture. But price information alone is not enough, especially in competitive markets where prices will vary more than they did when electricity was regulated. In the absence of knowing the risk of price changes, customers will misunderstand price terms. Is a particular price offer fixed over some period of time? Will it change in relationship to the spot energy prices? Inflation? Fuel prices? How much can it change? Are there any charges for leaving a supplier before the end of a contract?

The home mortgage market offers a useful analogy for thinking about price and risk. The price of electricity is comparable to the interest rate. Fixed and adjustable interest rate options offer consumers different levels of price risk. Because the interest rate and risk factors can be misunderstood, the Federal Reserve Board requires the Annual Percentage Rate (APR) to disclose total financing costs, including the risk of change under adjustable rate loans. This makes the APR a figure customers can rely on when comparing different mortgage options. Some states go farther than the Federal Reserve Board requirements and limit the amount and frequency of change. Some also help customers with comparison shopping by publishing summary data in local papers.

**RECOMMENDATION. Suppliers should be required to disclose price information in its uniform label and *Terms of Service* brochure. In its uniform label (see sample label in Executive Summary and on p.-13), a supplier should disclose its average kWh prices at designated levels of use. Each supplier's label should also disclose the supplier's minimum contract length and whether its price is fixed or variable over the contract period.**

Each supplier's *Terms of Service* brochure should include more detailed information about the supplier's actual prices and contract terms.

### **What environmental facts should be disclosed?**

Fuel mix and air emissions have been identified as the two types of environmental information that customers want and need to be able to comparison shop among competitive suppliers. **Fuel mix** refers to the combination of supply sources that make up a supplier's overall power supply. **Air emissions** (or emissions) refer to the by-products that are discharged into the air by the generation sources that make up a supplier's fuel

mix. Without disclosure, typical consumers are not familiar with either the fuels used to produce the electricity they buy or the emissions associated with those fuels. Further, consumers cannot identify a preferred supplier based solely on either fuel mix or air emissions information. A combination of fuel mix and emissions information gives consumers the information needed to select their supplier of choice.<sup>0</sup>

**RECOMMENDATION. Sufficient information on fuel mix and emissions both on the uniform label and in the *Terms of Service* brochure should be provided to permit consumers to select a preferred supplier.**

### ***Fuel mix information***

Customers want to know the sources of the power they purchase, and many will base their purchasing decisions, at least partially, on the supplier's power sources. Recognizing this, many states have acted to disclose fuel mix information to retail customers (see Appendix B).

Many types of fuel are used to generate electricity in this country. However, different regions have different fuel mixes. Some fuel sources are quite common throughout the country, some types of fuel are used more heavily in some regions than other regions, and some fuels are used relatively rarely. The threshold question about fuel mix disclosure is: which fuel types should suppliers be required to report?

The following disclosure list represents the most common fuel or resource types used in this country.

- Coal
- Nuclear
- Oil
- Natural gas
- Hydroelectric
- Solid waste incineration
- Solar, wind and biomass
- Other (should be limited to no more than 5% of mix)

Some regions might add geothermal or subtract resources that are unlikely to be available in the region. Other regions may want to subdivide fuel categories, such as dividing hydroelectric into small and large plants. If a combined category such as "solar, wind and biomass" makes up more than five percent of the mix, the categories should be broken down and listed separately. Each region should tailor its fuel mix disclosure list to its own particular characteristics and needs.

**RECOMMENDATION. Because the use of fuel types can vary significantly from region to region, each region should develop its own fuel mix disclosure list. As with most aspects of disclosure and labeling, this list needs to balance the desire for comprehensive and precise reporting with the need to keep disclosure simple and**

**understandable. Each list should be long enough to include the major fuel types used within the region but short enough to be understandable and easy to use and include fuel types about which consumers have a strong opinion.**

### *Air emissions information*

Disclosure of air emissions is important for two reasons. First, though the listing of fuel type provides some information about environmental impacts of electricity generation, the connection between fuel types and pollution impacts is indirect and may not be well understood by many consumers. Second, the environmental impacts of a particular fuel can vary significantly, depending on the type of generation equipment and the pollution controls used. Disclosure of emissions information provides a straightforward way to capture these differences. It recognizes low-emissions generation and avoids implied discrimination against a particular fuel type (such as coal) where there is a wide range of emissions across plants.

Emissions information should be disclosed for pollutants that are emitted in significant amounts by electric generators, have recognized environmental and public health impacts and about which reliable data is readily available.

**RECOMMENDATION. Each supplier should disclose the emissions of three pollutants -- sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and carbon dioxide (CO<sub>2</sub>) - - produced by their generation mix. These pollutants are key contributors to a number of air pollution problems including acid rain, fine particulates, ground-level ozone and global climate change.**

Reliable data for these three pollutants are publicly available from the USEPA, state environmental agencies and established estimating techniques. Reliable nationwide data on other pollutants, such as particulates, mercury and other air toxics, are not available. For nuclear power, unlike emissions from fossil plants, emissions do not vary significantly from plant to plant. Thus additional emissions or waste information may not help customers to distinguish between nuclear plants, but it may distinguish nuclear from other sources.

### **Consumer Protection Information**

In addition to price and environmental information, consumers want disclosure of consumer protection information. The results of focus group, workshop and survey activities show that consumers desire information that is supplier specific (Such as, "How do I resolve a dispute with this particular supplier?") as well as general consumer protection information (such as, "Am I eligible for standard offers and/or default services?").

**RECOMMENDATION. Consumer protection information belongs in uniform labels, *Terms of Service* brochures and monthly bills.**

### ***Uniform Label***

The following consumer protection information belongs on the uniform label.

Contract length (which may equate to the length of notice required for termination)

Whether the price is fixed or varies over the contract period

### ***Terms of Service Brochure***

The *Terms of Service* brochure should serve as the contract between the seller and buyer and be the primary disclosure document for consumer protection information. At a minimum, the *Terms of Service* brochure should include the following:

- Supplier's uniform label
- Actual price structure
- Contract details, including length
- Contract cancellation procedures
- Required deposits
- Fees and penalties
- Disconnection terms
- Detailed statement of customer rights
- Toll-free number for service complaints
- Other terms or statements as specified by the public utilities commission

### ***Monthly Bill***

Consumer protection information should also be included on each customer's monthly bill. Information on the bill should include the following:

Toll-free number for service complaints

The average unit price of the current electricity charges for the current billing period, expressed in a cents per kWh form

Information on the term of the contract and a reference to any applicable early termination charges

A statement as to whether the contract price is fixed or variable. If the price is variable, the basis for price changes must be stated.

A statement that the bill contains the charges for electricity only and that the customer must also obtain transport and delivery service from their local distribution utility

Reference to the *Terms of Service* brochure for further information

## **Format, timing and placements of disclosure pieces**

### **Format**

Just as important as the disclosure content is the format used to supply information to consumers.

#### ***Standardized label***

The standardized label shown in the introduction, and displayed below was designed and tested to insure that customers could easily read and understand it, and that it contained the essential information customers wanted to know. Many different labels were presented to market study participants before selecting this particular label for recommendation.

The sample label includes the following information discussed in more detail earlier in the report.

**Price information.** This gives an average generation price based on monthly use. The label makes it clear that price information does not include regulated charges for delivery services.

**Contract terms.** Contract length and whether the prices are fixed or variable over the course of the contract are included on the label. For more information, the customer is referred to the *Terms of Service* brochure.

**Supply mix.** The supply mix graphic shows the percentage from each source used during the previous year to provide the supplier's electricity.

**Air emissions.** The graph shows emissions of nitrogen oxides, sulfur dioxide and carbon dioxide and compares them to the regional average.

#### ***Terms of Service***

The *Terms of Service* brochure serves as the contract between seller and buyer. It must be written in plain, easily understood English but also have a statement on the front indicating that it contains important information that is available in other languages by calling a specified toll-free telephone number; this statement shall be written in languages spoken by a significant number of customers in the state.

| Electricity Facts                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                            |         |                                                  |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------|----------|----------|-----|-------------|-----|---------|-----|-------|-----|----------------------|-----|--------------------|----|-------|------|
| <b>Generation Price</b><br>Average price (cents per kWh) for varying levels of use. Prices do not include regulated charges for delivery service.                                                | <b>Average Monthly Use</b>                                                                                                                                                                                                                                                                                                 | 250 kWh | 500 kWh                                          | 1000 kWh | 2000 kWh |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
|                                                                                                                                                                                                  | <b>Average Generation Price</b>                                                                                                                                                                                                                                                                                            | 5¢      | 4.5¢                                             | 4¢       | 3.5¢     |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
| Your average price will vary according to when and how much electricity you use. See your most recent bill for your average monthly use and Terms of Service or your bill for the actual prices. |                                                                                                                                                                                                                                                                                                                            |         |                                                  |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
| <b>Contract</b><br>See your contract or Terms of Service for more information.                                                                                                                   | <b>Minimum Length:</b> 2 Years                                                                                                                                                                                                                                                                                             |         | <b>Price Changes:</b> Fixed over contract period |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
| <b>Supply Mix</b><br>We used these sources of electricity to supply this product from 6/95 to 5/97.                                                                                              | <table border="1"> <tr><td>Coal</td><td>40%</td></tr> <tr><td>Natural Gas</td><td>20%</td></tr> <tr><td>Nuclear</td><td>15%</td></tr> <tr><td>Hydro</td><td>10%</td></tr> <tr><td>Solar, Wind, Biomass</td><td>10%</td></tr> <tr><td>Waste incineration</td><td>5%</td></tr> <tr><td>Total</td><td>100%</td></tr> </table> |         |                                                  |          | Coal     | 40% | Natural Gas | 20% | Nuclear | 15% | Hydro | 10% | Solar, Wind, Biomass | 10% | Waste incineration | 5% | Total | 100% |
| Coal                                                                                                                                                                                             | 40%                                                                                                                                                                                                                                                                                                                        |         |                                                  |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
| Natural Gas                                                                                                                                                                                      | 20%                                                                                                                                                                                                                                                                                                                        |         |                                                  |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
| Nuclear                                                                                                                                                                                          | 15%                                                                                                                                                                                                                                                                                                                        |         |                                                  |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
| Hydro                                                                                                                                                                                            | 10%                                                                                                                                                                                                                                                                                                                        |         |                                                  |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
| Solar, Wind, Biomass                                                                                                                                                                             | 10%                                                                                                                                                                                                                                                                                                                        |         |                                                  |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
| Waste incineration                                                                                                                                                                               | 5%                                                                                                                                                                                                                                                                                                                         |         |                                                  |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
| Total                                                                                                                                                                                            | 100%                                                                                                                                                                                                                                                                                                                       |         |                                                  |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |
| <b>Air Emissions</b><br>Nitrogen oxides (NOx), sulfur dioxide (SO <sub>2</sub> ), and carbon dioxide (CO <sub>2</sub> ) emissions relative to regional average.                                  |                                                                                                                                                                                                                                                                                                                            |         |                                                  |          |          |     |             |     |         |     |       |     |                      |     |                    |    |       |      |

The

brochure should include:

The supplier's policy with respect to deposits

A description of the supplier's policies with respect to consumer rights

A statement about the use of credit reports, in compliance with the Fair Credit Reporting Act

A statement about limitations on and disclaimers of warranties, in compliance with state law, including the Uniform Commercial Code

The supplier's dispute or complaint handling policy, including a toll-free number where customers can call for questions or complaints

A statement about how the customer can cancel the contract, with all applicable notice provisions and penalties or charges for early cancellation

All other material terms and conditions, including but not limited to exclusions, reservations, limitations and conditions of the contract offered by the supplier

A statement indicating that a customer has the right to cancel the contract within three days of receipt of the *Terms of Service* brochure

### ***Timing and placement***

The standardized label and *Terms of Service* brochure must be in customers' hands before a final purchase decision is made and then periodically provided to customers thereafter. Customers who have agreed to buy should have a three day right to cancel period after receiving the brochure.

### ***Standardized label***

Labels should appear in the following places:

**Bills.** Labels should be inserted with bills or be sent to consumers quarterly or semiannually.

**Written advertising materials** describing one or more products. The label would not be required in "image" ads on television or radio. It would also be desirable to exempt print ads which are too small to allow a legible label to be included.

### **Direct mail marketing materials**

**Telemarketing.** Customers should be informed that information on price, fuel use and emissions is available and given the option of either listening to abbreviated information over the phone or receiving a written copy of the label by mail or fax.

**Internet.** The label should be disclosed in Internet advertising. It could appear on a separate page, so long as a readily identifiable icon was available to access that page.

**Contract.** The label should be included in any contract or other formal explanation of terms provided to the customer.

### ***Terms of Service***

The *Terms of Service* brochure should be given to potential customers before the customer agrees to buy from a seller and the customer should have a three day right to cancel after receiving the brochure. Information from the brochure should be sent to residential and small commercial customers as a separate mailing or as a bill insert on a semi-annual basis.

### **Getting Started: Frequently Asked Questions**

This first section looks at many of the questions lawmakers and regulators have about disclosure and labeling. Many of the issues described here are discussed in more detail later in the report.

## **What do the terms disclosure and labeling mean?**

**Disclosure** refers to the electricity product information that lawmakers and/or regulators decide must be available to consumers. This can include price, resource mix and environmental characteristics of the electricity services being sold as well as key consumer protection information. Disclosure addresses only information that can be provided in an objective and factual manner; it is about giving just the facts and not embellishing these facts with subjective claims. Customers decide for themselves what comparison s/he wants to make or what criteria are most important to making a purchasing decision.

**Labeling** refers to how the information required for disclosure is conveyed to consumers. Consumer research has found that the best way to do this is through the use of two documents: a uniform label, similar to the nutritional label that appears on food, and a *Terms of Service* brochure that provides more detailed consumer protection information. Monthly bills are a third vehicle for providing information.

## **Why is disclosure an important issue now?**

Until recently, customers had no choice over who supplied them electricity. Electric utilities were monopolies, regulated by state and federal agencies. A retail customer's electricity supplier was based entirely on where s/he lived or where a business was located. That is no longer the case. With restructuring of the electric utility industry occurring in many states, millions of customers will now be choosing among competitive suppliers of generation. The map in Appendix C identifies states where electric industry restructuring is occurring.

## **Is disclosure and uniform labeling really necessary?**

Shopping for electricity will be a new and somewhat intimidating experience for most customers. A wide variety of companies will sell many mixtures of energy products (electric, gas and electric combinations), and energy management services. These products and services will have different pricing and billing options, risk profiles and environmental characteristics. Experience from state pilot programs has shown customers are confused when given competing offers with different pricing structures. In addition, the intangible nature of electricity makes it nearly impossible for customers to determine the sources of their power and verify whether sellers' claims are true. Without the common language of standardized disclosure and labeling, the average electricity customer has no way of getting the information s/he needs.

## **What other sectors rely on uniform labeling and disclosure?**

Standardized, customer-friendly labeling and disclosure are required in many sectors of the retail economy to provide a uniform basis for comparison of material terms. Consumers are familiar with labels for food, automobiles, appliances and consumer credit.



### **Why should disclosure and labeling be important to state legislatures?**

State legislatures play an pivotal role in electric industry restructuring by providing the overarching framework by which to introduce retail competition into the state in as smooth a manner as possible. Standardized disclosure and labeling are essential elements of this smooth transition.

The reorganization of the telecommunications industry left many consumers confused and dissatisfied. Much of this confusion could have been avoided had disclosure and labeling been required for suppliers in the restructured telecommunications industry. Customers have a very difficult time comparing one telephone service offering with another. Citizens will be paying close attention to make sure electricity restructuring does not result in the same problems as telecommunications.

As with telecommunications, every legislator and all constituents will be affected directly or indirectly by electric restructuring and the choices that follow. This is true even where restructuring is only happening in neighboring states or regions. Equally important is the fact that electricity is a critical part of the infrastructure of each state, influencing both its economic growth and physical environment.

### **Should disclosure and labeling be coordinated on a state or regional basis?**

Regional disclosure and labeling make sense for a variety of reasons. Competitive firms prefer uniform requirements to avoid higher marketing and administrative costs. Regulators, consumer advocates and consumers prefer uniform requirements so consumers more easily recognize, understand and use disclosed information when choosing a supplier. Uniform requirements throughout a large region also reduce the possibility that firms might have an opportunity to "game" the system.

In addition, power markets tend to be regional in nature. Standardized disclosure and labeling throughout these regional power markets will make the market more efficient for both consumers and suppliers.

### **Why does disclosure have to be uniform?**

Research shows that the ability of customers to correctly identify the products they want declines sharply if products use different label formats even when the labels contain the same kind of information. The solution is to require all sellers to report the same information using the same format. Standard content creates the common language and allows customers to make an "apples-to-apples" comparison of products. Standardizing the format helps make the information understandable.

The need for standardized customer information is especially important for electricity markets. Shopping for electricity is a new experience for residential and commercial customers. Inexperience, together with the fact the product is intangible, means the prospect for misleading claims and customer confusion is very high.

## **Should disclosure be mandatory or voluntary?**

Research has shown not only clear and strong consumer desire for mandatory disclosure but also the need for mandatory disclosure. Consumers' ability to perform typical shopping tasks, such as correctly identifying the lowest-cost option, calculating bills and determining which option had the fuel mix or emission characteristics the customer wanted suffers when labels are voluntary. Only when consumers have the information they need to compare products will the electric market operate most efficiently.

With voluntary disclosure, a supplier who sells two products -- a "clean" and "green" product and lower-cost, more polluting product -- could decide only to disclose information on the "clean" product and market the other product as a "low-cost" product, but not disclose information. This would lead to customer confusion and fail to protect consumers or competition.

States that have acted on this issue have required mandatory disclosure (see Appendix B), with some allowance for the use of default labels for suppliers who make no environmental claims.

## **Verification**

### **What is verification?**

Verification is the process that guarantees the accuracy of fuel mix and emissions information appearing on the uniform label. The verification process relies on a tracking mechanism that allows a supplier (and any other observer) to trace the power being sold at retail back to its ultimate source of supply.

### **Why is verification important?**

The uniform label requires suppliers to report the actual fuel mix and air emissions of their power supply. This information, along with price and consumer protection information, allows consumers to compare services offered by competing suppliers and choose the product they find most attractive. For the disclosure process to work effectively, the information suppliers report on the label must be accurate, and customers must have confidence in the reliability and accuracy of the disclosure process.

**RECOMMENDATION. To ensure that customers have faith in the disclosure process and that the information sellers report on the uniform label is, in fact, accurate, regions need to create a tracking mechanism to verify the accuracy of the reported information. State legislatures should direct their utility regulatory commissions to work with other commissions within the region to develop a regional tracking mechanism that will permit adequate verification within their region.**

### **Is verification possible?**

While electrons can neither be directed to a particular customer nor traced from a specific power source to a customer, verification is possible by tracking dollars, not electrons.

The electricity delivery system can be visualized as a lake into which suppliers add water (electrons) at many different points, and consumers take water (electrons) out at many other points. In a competitive market, customers will take power from the grid and pay specific suppliers who have either delivered the power or have had others deliver it. What is known with certainty is which suppliers are paid by which customers and what power plants the supplier used to add to the lake of electrons. Based on the availability of this information, a number of tracking mechanisms have been designed and implemented.

**RECOMMENDATION. An ideal tracking mechanism will have three primary characteristics: It will 1) be accurate and accepted by customers, 2) be consistent throughout the region and 3) allow market participants broad flexibility in developing products and making business decisions, so long as those products are accurately represented to customers. The characteristics of each region's power market will determine which tracking mechanism will work best for that region.**

### **Are there any situations in which a default label should be allowed?**

There will be situations in which a supplier will not be able to determine its supply sources. One reason may be that it will take time for some regions to develop a verification system capable of tracking generation for all suppliers. Absent an adequate tracking mechanism, some suppliers will not know the precise sources of the power they are selling. This suggests that some short-term accommodation may be appropriate for situations where suppliers are unable to determine their supply sources.

**RECOMMENDATION. In regions where a comprehensive tracking mechanism is not yet available, a default label option should be created on an interim basis. During the interim period, sellers who are able to identify their power supplies should be required to disclose the actual fuel mix and air emissions of those supplies, and suppliers who are unable to identify their power supply should use the default label.**

### **Where should state legislatures go from here?**

The time is ripe for state legislatures to take a comprehensive and active role toward insuring a smooth transition to competition in the electric industry.

In addition to the ideas and recommendations included in the body of this report, Appendix E includes model legislation and rules that have been drafted to help state lawmakers work through the details of establishing a successful disclosure system.

Citizens do not want to see a return of the confusion that followed deregulation of the telecommunications industry. Certainly, they will be paying careful attention to make sure that competition happens in a manner that allows them to do comparative shopping across products, enhances consumer protections and makes electricity markets more efficient.

Carefully-crafted disclosure requirements will help make this happen.

## **Appendix A:**

### **Statements in support of disclosure**

#### *Clinton Administration:*

#### **Comprehensive Electricity Competition Plan**

*"The Secretary of Energy would be authorized to conduct a rulemaking to require all suppliers of electricity to disclose information on price, terms, and conditions of their offerings; the type of generation source; and generation emissions characteristics.*

*In a competitive market, consumers will need reliable information so they can compare the products and prices offered by suppliers. Uniform and easy to understand labeling along the lines of the Food and Drug Administration's highly successful nutritional labeling system will help consumers get the best price possible on electricity and facilitate the development of a vigorous market for environmentally beneficial power technologies."*

*March 25, 1998*

#### *National Association of Regulatory Utility Commissioners*

The National Association of Regulatory Utility Commissioners (NARUC) has recognized the critical importance of giving retail electricity customers reliable information in standardized form. In November 1996, NARUC passed a resolution calling for uniform disclosure standards. The NARUC resolution concludes:

*...[t]he National Association of Regulatory Utility Commissioners (NARUC) ... believes that the electric industry should facilitate informed customer choice that will promote efficient markets, resource diversity, and environmental quality; and ...*

*NARUC supports initiatives leading to minimum, enforceable, uniform standards for the form and content of disclosure and labeling that would allow retail and wholesale customers easily to compare price, price variability, resource mix, and environmental characteristics of their electric purchases; and...*

*NARUC urges states adopting retail direct access programs [retail competition] to include enforceable standards of disclosure and labeling that would allow retail customers easily to compare the price, price variability, resource mix, and environmental characteristics of their electricity purchases.*

## *New England Governors*

**New England Governors have also expressed an interest in disclosure and labeling and adopted an important resolution in the summer of 1997. That resolution concludes that:**

*... the New England Governors' Conference, Inc. fully supports current efforts initiated by the National Council on Competition and the Electric Industry and the New England Governors' Conference to develop enforceable, uniform standards for the form and content of disclosure and labeling that would allow retail and wholesale consumers to easily compare the price, fuel and emissions characteristics of potential electricity purchases; and*

*... the New England Governors' Conference, Inc. encourages state officials to participate in the research effort and seek consensus so consumers across the region, when retail choice is available to them, will have the benefit of consistent, easily understandable information regarding the electricity they purchase.*

The text of the Clinton Administration plan can be found at [www.hr.doe.gov/electric/cecp.htm](http://www.hr.doe.gov/electric/cecp.htm). Text of the NARUC resolution, and the New England Governors' Conference resolution and the NECPUC model disclosure rule are all available on the National Council's and RAP's web sites.

## **Appendix B:**

### **Summary of state actions**

#### **State By State Disclosure Summary**

Several states have established disclosure policies through either statute or regulation or both. Several other states are actively considering alternative disclosure requirements. In addition to action at the state level, states within the New England region and the Western Governors' Association are exploring a uniform regional disclosure approach. What follows is a state by state summary of disclosure activities across the country.

#### ***CALIFORNIA***

In September 1996, the Governor signed AB 1890 into law. The law mandates transition to open access to begin by January 1998 and requires entities offering electric services in California to disclose accurate, reliable and understandable information on the sources of energy (fuel mix: coal; large hydro; natural gas; nuclear; and renewables, including biomass, geothermal, small hydro, solar and wind) that are used to provide electric services. (See Statutes of 1997, Chapter 796, sections 398.3, 398.4 and 398.5 in particular.) The California Energy Commission (CEC) has adopted rules requiring a disclosure label that covers energy mix. California, along with several other states, is participating in the Western Region Disclosure Project to develop uniform disclosure standards throughout the region.

#### ***COLORADO***

Several restructuring bills were introduced in the Colorado Legislature in 1997 and 1998. SB 98-152 was passed in 1998 which created a study panel to consider restructuring in Colorado. The Panel submitted a procedural report in December, 1998 and plans to issue a final report in July, 1999. In addition, the Colorado Public Utilities Commission (PUC) adopted a rule (Docket 98-R-536E) requiring disclosure of fuel mix and emissions. Colorado is also participating in the Western Region Disclosure Project to develop regional disclosure standards.

#### ***CONNECTICUT***

In April 1998, Public Act 98-28 was signed into law. The law phases in retail access during 2000 and requires that information on fuel mix and emissions must be provided by distribution companies. Connecticut is one of six New England states (along with Maine, Massachusetts, New Hampshire, Rhode Island and Vermont) that have been participating in the National Council's New England Disclosure Project to explore the development of uniform consumer information disclosure throughout the region. A project report on uniform consumer disclosure standards for New England was completed and circulated in October 1997.

## ***FLORIDA***

On February 16, 1999, the Florida Public Service Commission adopted a rule that requires electric utilities to give customers quarterly reports summarizing the sources they use to generate power.

## ***ILLINOIS***

In December 1997, the Governor signed PA 90-561, which established a deregulation plan for Illinois. Under this law, retail competition will be phased in starting in October 1999. Commission Order ICC 98-0194 requires utilities and energy retailers to report generation mix and emissions information (including information regarding both low-level and high-level nuclear waste) on customer bill inserts on a quarterly basis. In addition, the ICC is required to post generation mix and emissions information on its web site.

## ***MAINE***

In 1997, Maine enacted a restructuring law that requires retail access for all customers beginning in March of 2000. The law leaves the details of disclosure to the Public Utilities Commission (PUC), though many of the PUC's restructuring rules must be reviewed by the Maine Legislature before they can take effect. (See Public Laws of 1997, Chapter 316, section 3203(4)(E).) On February 23, 1999, the PUC adopted its disclosure rule (Chapter 306) in Docket No. 98-708. The rule requires electric service providers to periodically distribute uniform disclosure labels to their customers. The label must disclose specified information about price, price variability, fuel mix and emissions. Chapter 306 also addresses the contents of a terms of service document that electric service providers must provide to prospective customers. The PUC is also addressing terms of service issues in a separate rulemaking that focuses on the licensing of electric service providers. Chapter 306 is currently being reviewed by the Maine Legislature. In addition, Maine is participating in the National Council's New England Disclosure Project to explore the development of uniform consumer information disclosure throughout the region.

## ***MARYLAND***

In December 1997, the Maryland Public Service Commission (PSC) issued an order in Docket #8738 to phase in retail competition starting on July 1, 2000. On February 8, 1999, the Governor signed SB 300, entitled "Electric Utility Industry Restructuring." The new law requires electric service providers to disclose fuel mix and emissions every six months. (See section 7-505(B)(4)) The PSC is currently studying various implementation issues and has formed a study group to consider disclosure matters.

## ***MASSACHUSETTS***

***In December 1996, the Department of Public Utilities (DPU) issued order 96-***



*100 which contained model rules for electric utility restructuring and recommended full retail access by January 1998. Comprehensive restructuring legislation was enacted in November 1997 that mandated retail access to all customers by March 1, 1998. The DPU was renamed the Department of Telecommunications and Energy (DTE) and given responsibility for implementing much of the law. Section 11.06 of the DTE's rules establishes information disclosure requirements. Section 11.06 requires electric service providers to disclose price, fuel mix, emissions and labor characteristics. Section 11.06 also requires providers to prepare and distribute "Terms of Service" statements. Massachusetts officials are also working with the National Council's New England Disclosure Project on regional disclosure issues.*

### ***MONTANA***

The Montana Utility Industry Restructuring and Consumer Choice Act (SB 390, Section 26, codified at Title 69, chapter 8, MCA)) became law in May 1997. Under the law, retail access began in July 1998 for some large industrial customers and will be complete by July 2002. The law also created a legislative transition oversight committee on restructuring. Among the committee's tasks is a review of the need for further consumer protections in the state. In addition, the Public Service Commission has opened a rulemaking (Docket No. L-98.10.5-RUL) to deal with disclosure issues. Montana is also participating in the Western Region Disclosure Project to develop regional disclosure standards.

### ***NEVADA***

In July 1997, the Governor signed AB 366 which restructured Nevada's electric industry and reorganized the Public Service Commission into the new Public Utilities Commission (PUC). The law requires retail access to begin no later than January 1999 and be completed by December 1999. The law also requires the PUC to establish minimum standards for the form and content of all sales information relating to the source and type of electric service purchased by customers. (See AB 366, Section 48(2).) On November 13, 1998, the PUC adopted Chapter 704 as a temporary regulation. Section 10 of Chapter 704 requires that all electric service providers create and distribute a terms of service brochure that discloses price, price variability and other terms of service information. In addition, subsection 10(13) provides that "[i]f advertising or marketing materials are used to make any claims regarding fuel mix or environmental characteristics, supporting data must be filed with the Commission prior to the service being offered." Nevada is also exploring regional disclosure standards as a participant in the Western Region Disclosure Project.

### ***NEW HAMPSHIRE***

The Governor signed NHRSA 374F, the "Electric Utility Restructuring Act" in May 1997. By order dated February 28, 1997 in Docket No 96-150, the New Hampshire Public Utilities Commission (PUC) required the disclosure of resource mix and directed a study group to make recommendations regarding the disclosure of emissions information.

On May 1, 1997, the study group recommended that electric service providers be required to disclose emissions and, to the extent feasible, such information should be disclosed on a uniform basis throughout the region. In March 1998, the PUC issued an order indicating that it intended to commence a disclosure rulemaking and would follow the NECPUC model rule (which includes disclosure of price, price variability, fuel mix and emissions) in its proposed rule. However, the initiation of the disclosure rule has been delayed by a pending legal action challenging New Hampshire's restructuring plan. New Hampshire representatives are also participating in the National Council's New England Disclosure Project to explore the development of uniform consumer information disclosure throughout the region.

### ***NEW JERSEY***

On February 9, 1999, the Governor signed into law the "Electric Discount and Energy Competition Act," Public Law 1999, chapter 23. Section 38, subsections a and b of the new law deal with environmental disclosure standards. Pursuant to the new law, the Board of Public Utilities (BPU) opened Docket No. EX99030182 on March 31, 1999. In this docket, the BPU released a variety of interim standards for public comment. Among these interim standards is the requirement that electric service providers publish specified information about fuel mix, emissions and the supplier's support of energy efficiency in a standardized label format. The BPU is processing many of its interim standards on an expedited basis and anticipates implementation of its disclosure standards rule by August 1, 1999.

### ***NEW YORK***

In late 1997 and early 1998, the Public Service Commission (PSC) entered into settlement agreements with six of the State's seven investor owned utilities which allow for full retail competition by 2002. PSC staff led a collaborative effort to consider disclosure options and issued a white paper on disclosure. On November 4, 1998, the PSC approved a disclosure rule that requires electric service providers to disclose fuel mix and emissions information on uniform labels. The PSC anticipates that these labels will be included in customer bills beginning in April 2000. New York is also participating in the National Council's New England Disclosure Project.

### ***OREGON***

Oregon has not adopted a comprehensive restructuring plan. However, by order issued on January 28, 1999 in Docket: UE 102, the Public Utilities Commission granted direct access for Portland General Electric's industrial and large industrial customers and offered portfolio options for residential customers. In addition, Portland General Electric, in conjunction with the Oregon Office of Energy has developed an energy label that provides information about PGE's fuel mix and air emissions and includes environmental impact information. Oregon is also participating in the Western Region Disclosure Project.

### ***RHODE ISLAND***

The Governor signed the Utility Restructuring Act of 1996 (Title 39-1-27) in August of that year. Under the Act, retail competition was phased in beginning with large industrial customers in July 1997 and concluding with residential customers by January 1998. Representatives from Rhode Island are participating in the National Council's New England Disclosure Project that is attempting to develop a regional disclosure standard.

### ***TEXAS***

On October 29, 1998, the Public Utilities Commission adopted a renewable energy tariff (Section 25.251) that allows electric utilities to market a renewable energy tariff to all retail customers. Subsection (k) requires electric service providers to disclose generation mix, emissions and nuclear waste.

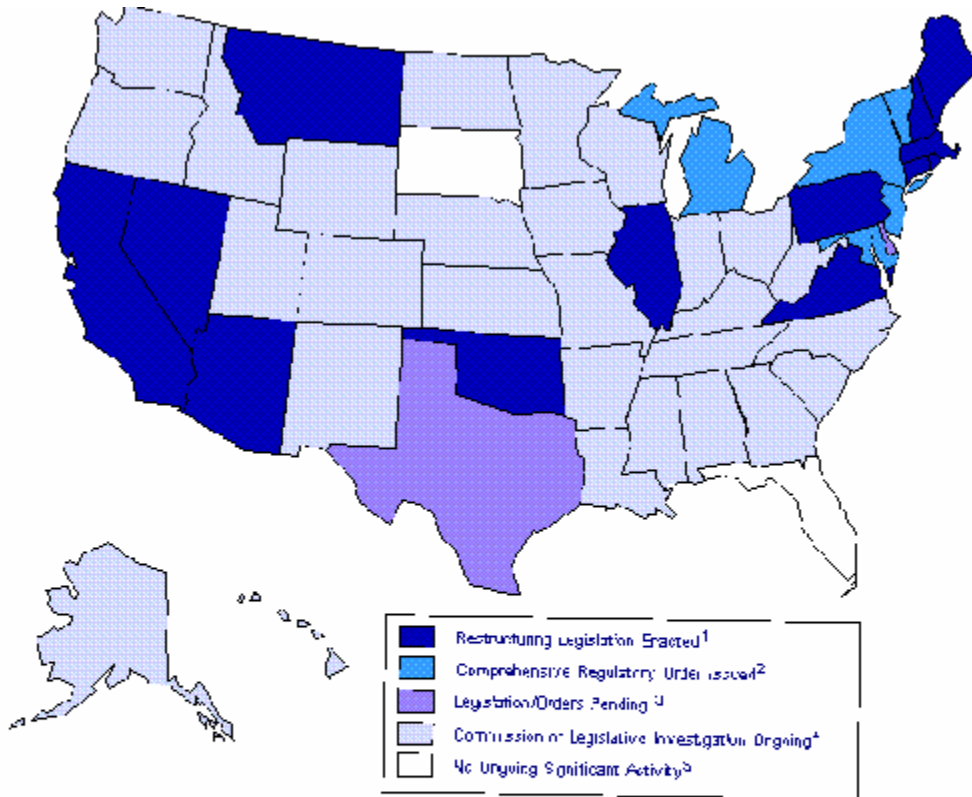
### ***VERMONT***

The Public Service Board (PSB) issued a restructuring Report and Order in December 1996 under Docket No. 5854. The Report and Order outlined broad restructuring goals and objectives. Since December 1996, the PSB and Vermont's Department of Public Service have issued several documents setting forth recommendations on restructuring Vermont's electric industry. In 1997, the Vermont's Senate passed S 62 entitled "An Act Relating to Electric Industry Restructuring and Electric Price Stability." However, S 62 never made it to a vote in the House. Both S 62 and the PSB's 1996 Report and Order recommended disclosure of fuel mix and emissions. S 62 also required disclosure for price, price volatility, generation mix by percentage, quantity of major pollutants per unit of energy, and energy efficiency opportunities for customers and terms and conditions of service. Vermont representatives are also participating in the development of regional disclosure standards through the National Council's New England Disclosure Project.

### ***WASHINGTON***

In 1998, the Washington Legislature passed, and the Governor signed, two disclosure-related bills. ESSB 6560 and E2SHB 2831 which, taken together, require electric utilities to disclose their consumer protection policies to customers and to articulate the unbundled costs of their electricity service. E2SHB 2831 directed several state agencies to examine ways for electricity providers to disclose fuel mix and emissions and report their finding to the Legislature in December 1998. The report was filed on December 1, 1998. The Washington Legislature is currently considering draft legislation that would require the disclosure of fuel mix information. Washington is also working to develop regional disclosure standards through its participation in the Western Region Disclosure Project.

**Appendix C: Map of states where electric industry restructuring is occurring.**



<sup>1</sup>Arizona, California, Connecticut, Illinois, Maine, Massachusetts, Montana, Nevada, New Hampshire, Oklahoma, Pennsylvania, Rhode Island, and Virginia.

<sup>2</sup>Maryland, Michigan, New Jersey, New York, and Vermont.

<sup>3</sup>Delaware, Texas.

<sup>4</sup>Alaska, Alaska, Arkansas, Colorado, District of Columbia, Georgia, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, New Mexico, North Carolina, North Dakota, Ohio, Oregon, South Carolina, Tennessee, Utah, Washington, West Virginia, Wisconsin, and Wyoming.

<sup>5</sup>Florida and South Dakota.

Source: Energy Information Administration.

## **Appendix D: Model legislation and rule**

### ***Title AA: UNIFORM INFORMATION DISCLOSURE MODEL STATUTE***

I. Purpose. The purpose of this statute is:

A. To inform and protect retail electricity customers by providing basic information about the retail purchase of electricity in a uniform format which permits and facilitates comparison shopping for electricity services, and

B. To improve the efficient operation of electricity markets by encouraging retail customers to make knowledgeable choices among retail electricity sellers.

II. Definitions. For the purposes of this statute, the following words shall have the meaning set forth in this section.

A. Retail Seller: Any entity which sells electricity to a retail customer in an amount that is not greater than XX kWh or Xx kW's annually (Residential and small commercial customers)

B. Retail Customer: Any purchaser of electricity for use in this state in an amount not greater than XXXXX

C. Label: A prescribed statement of facts for each product offered for sale by a retail electricity seller in this state

D. Terms of Service: A written document provided to retail customers and prospective retail customers which contains all contract terms and required statements of customer protections and rights.

E. Commission: The Public Utility Commission (state utility regulatory agency)

III. Labeling.

A. Each electricity product sold by each retail seller shall bear a uniform label containing the following information in a succinct and easily understood format:

The average price offered for at least three typical usages for customers of similar size

2. Length of contract period

3. Whether the rate offered is fixed or variable

4. The fuel mix for that product

5. The emissions of NO<sub>x</sub>, SO<sub>x</sub> and CO<sub>2</sub> related to the fuel mix for that product (measured against a regional average?)

B. The label shall appear on all marketing materials sent to retail customers or prospective retail customers, in the Terms of Service document required by Section IV, in all written advertising materials including newspapers, magazines and other written media and on the Internet. Any telephonic or other electronic solicitation shall inform customers they may obtain a copy of the disclosure label upon request.

#### IV. Terms of Service

A. All prospective retail customers shall be given a copy of the Terms of Service prior to the commencement of service. Retail customers shall have three business days following the receipt of the Terms of Service in which to cancel their agreement to purchase electricity.

B. The Terms of Service shall include:

- 1.) The label required in Section III;
- 2.) the actual price structure;
- 3.) contract details including length;
- 3.) contract cancellation procedures;
- 4.) required deposits;
- 5.) fees and penalties;
- 6.) disconnection terms;
- 7.) detailed statement of customer rights;
- 8.) toll-free number for service complaints;
- 9.) other terms or statements as specified by the public utilities commission

C. The Terms of Service shall be written in easily understood, plain words and paragraphs and shall be provided in the same language as the original retail customer solicitation materials.

#### V. Commission Authority

The commission shall:

A. Enforce the provisions of this Title, notwithstanding any other authority held by any other state or federal agency;

B. Prescribe rules and regulations to implement this Title, including the specification of the system to be used to track and verify the information given on the label and in the Terms of Service.

VI. Fines, Penalties and Suspension of license.

Compliance with this Title is a condition of licensure for the sale of retail electricity in this state. Failure to comply may result in fines up to \$1000 per day of violation and/or forfeiture or suspension of license.

## **New England Conference of Public Utilities Commissioners Model Rule on Information Disclosure**

*This document is a model rule on uniform information disclosure developed by NECPUC staff. The model rule builds upon a project initiated by the National Council on Competition and the Electric Industry, and supported by NECPUC, to develop uniform information disclosure for retail electricity sales throughout New England. The purpose of the model rule is to provide a common starting point for commissions in the region developing information disclosure policies. The model rule does not represent any formal action or conclusion by any individual state commission. While NECPUC acknowledges that each New England state will be developing its own specific information disclosure policy, NECPUC continues to believe that a uniform regional approach is in the public interest for two reasons. First, such an approach will assist consumers in comparing suppliers' offers, thereby enabling consumers to make informed decisions about electricity suppliers in the region. Second, such uniformity will reduce supplier expenses attributable to compliance with different state requirements which, in turn, will lower the cost of electricity in the region.*

*-NECPUC Commissioners March 3, 1998*

### **XXX.01: Information Disclosure Requirements**

#### **I. Purpose and Scope.**

(A) Purpose. The purpose of this section is to ensure that Customers are presented with consistent, accurate, and meaningful information by which to evaluate services offered by Load-serving Entities.

(B) Scope. This section applies to all Load-serving Entities as specified in this section.

#### **II. Information Disclosure Label.**

(A) Each Load-serving Entity shall prepare information on a label for each price offering in a form that is consistent for all Load-serving Entities, as determined by the Commission. Such label shall be a condition of licensure for Competitive Suppliers. The label shall present information in accordance with Rule XXX.01(2)(b) through XXX.01(2)(e), and shall conform to all applicable state rules and regulations. The label shall be distributed in accordance with Rule XXX.01(4).

(B) Price to be charged and price variability. The label shall present the price of generation service as an average unit price in cents per kilowatt hour as measured at the customer meter over the course of an annualized period, regardless of actual price structure. This unit price shall be the price for generation services only, and shall not include charges associated with delivery, other Commission regulated services, or other non-generation products or services except as provided below. The label shall contain the following information on average price and price variability.



1. Average price information.

(a) Average prices shall be shown for four levels of use. The average price for each usage level shall be the total charge for generation service for the specified usage level, divided by the kilowatt hours for the particular usage level. Average prices shall be rounded to the nearest one tenth of a cent per kilowatt hour.

(i) Residential. Average prices for residential consumers shall be shown for usage levels of 250, 500, 1000 and 2000 kilowatt hours per month.

(ii) Commercial. Average prices for commercial consumers shall be shown for 1,000, 10,000, 20,000 and 40,000 kilowatt hours per month.

(b) Average prices for time-of-use and seasonal prices shall be based on a single, generic New England load profile for each customer class, as approved by the Commission.

(c) Average prices for service based on spot or other variable prices shall be shown based on the average prices that would have been charged in the last month of the prior quarter.

(d) Bundled Generation Service. Load-serving Entities that offer Generation Service in which electricity is bundled with any other product or service may display the charge for Generation Service either as

(i) The average price for which the Customer can purchase unbundled Generation Service from the Load-serving Entity, or

(ii) The average generation price, assuming the entire price of the bundled service is attributable to electricity. If this option is selected the label may include a statement in the same font as subheadings that identifies what is included in the average price, or

(iii) After approval by the Commission, the average price of the electricity separated from the other bundled services.

(e) Inducements. Average prices shall not reflect any adjustment for cash or non-cash sales inducements.

2. Price variability information. If prices vary by time of use or by volume, a subheading shall be printed below the average prices stating one or both of the following:

(a) If prices vary by time of use, including seasonal prices, the statement shall read "Your average electricity price will vary according to when you use electricity. See your Terms of Service for actual prices."

(b) If prices vary by volume of sales, including prices that have a fixed charge and a flat energy charge, the statement shall read "Your average generation price will vary according to how much electricity you use. See your Terms of Service for actual prices."

(C) Customer service information. The label shall contain a toll-free number for customer service and complaints.

(D) Fuel and Emissions Characteristics. The label shall contain information on the fuel mix and emissions characteristics associated with the Load-serving Entity's resource portfolio.

1. Determining the Resource Portfolio.

(a) Resource portfolio. The resource portfolio of a Load-serving Entity shall consist of the portfolio of generating resources used to meet that portion of the Load-serving Entity's Electrical Load associated with the kilowatt hours delivered to retail customers, kilowatt hours of associated electrical losses, and kilowatt hours of use by the Load-serving Entity on its own system, as determined in accordance with Section 14.1 of the NEPOOL Agreement and associated market rules. The resource portfolio shall include (1) a NEPOOL Participant's settlement resources, net of unit contracts sold, plus (2) any energy received due to negative adjusted net interchange, summed for all hours of the label reporting period. Such generating resources shall reflect Known Resources and System Power as discussed below. The resource portfolio shall be determined using market settlement data or equivalent data provided by the Independent System Operator. Resource portfolio information shall be updated on a quarterly basis. Load-serving Entities shall be responsible for providing resource portfolio data to the Commission upon request.

(b) Label reporting period. The label reporting period shall be stated on the label. The label reporting period shall be the most recent one-year period prior to the reporting month for which resource portfolio information has been updated with the following exceptions:

(i) If a Load-serving Entity has operated for less than a full year, but more than three months, the Load-serving Entity shall report the information that is available for the portion of the year the Load-serving Entity has operated.

(ii) If a Load-serving Entity has operated for less than three months, the Load-serving Entity shall report a reasonable estimate of its resource portfolio based on (a) the Load-serving Entity's known generating unit ownership and contracts, and

(b) the average regional system mix.

(c) Known Resources: For each hour in which the resource portfolio includes kilowatt hours that are associated with specific generating units in which the Load-serving Entity holds unit entitlements or contracts that specify the associated generation units, such kilowatt hours shall be deemed to derive from Known Resources. On a monthly basis, the Load-serving entity shall determine the total kilowatt hours that are associated with specific generating units, its Known Resources, and subtract them from its total kilowatt hours of loads served in that month. For the purpose of determining fuel mix and

emissions characteristics in Rule XXX.01(2)(d)2 and 3, kilowatt hours from Known Resources shall be ascribed the characteristics of the associated generating units.

(d) System Power: For all kilowatt hours that are not associated with Known Resources in accordance with Rule XXX.01(2)(d)(1)(c) above, such kilowatt hours shall be deemed to derive from System Power. For the purpose of determining fuel mix and emissions in Rule XXX.01(2)(d)2 and 3, kilowatt hours from System Power shall be ascribed the characteristics of the residual system mix. The residual system mix shall be the mix of generating resources in New England net of Known Resources.

(e) Imports: Until adjacent regions develop compatible disclosure policies, a Load-serving Entity's total imports to New England will be listed as a separate fuel source as defined in Rule XXX.01(2)(D)2. For the purpose of determining emissions characteristics as defined in Rule XXX.01(2)(D)3, imports shall be ascribed the characteristics of the exporting system's mix.

(f) Disaggregation of Resource Portfolio: If a Load-serving Entity seeks to disaggregate its resource portfolio pursuant to this rule and make assignments and provide differentiated labels to particular customer groups, the Load-serving Entity shall be required to demonstrate to the Commission's satisfaction that its disaggregation is based on data that can be verified.

## 2. Fuel Source Characteristics

(a) Each Load-serving Entity shall determine its resource portfolio in accordance with Rule XXX.01(2)(d)1 and shall report on the label the fuel mix of said resource portfolio.

(b) At least the following fuel sources shall be separately identified on the label and listed in alphabetical order: biomass; coal; hydro; municipal solid waste; natural gas; nuclear; oil; solar; wind; and other Renewable Resources (including fuel cells utilizing renewable fuel sources, landfill gas, and ocean thermal). Fuel mix percentages shall be rounded to the nearest full percentage point.

(c) Energy Storage Facilities. The fuel mix associated with an energy storage facility shall be the fuel mix of the energy used as input to the storage device. The characteristics disclosed shall include any losses as a result of storage.

## 3. Emissions Characteristics

(a) Each Load-serving Entity shall identify its resource portfolio in accordance with Rule XXX.01(2)(d)1 and shall report on the label the emission characteristics of said resource portfolio.

(b) For the purpose of emission characteristics disclosure, at least the following pollutants shall be separately identified on the label: carbon dioxide (CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>),

and sulfur dioxide (SO<sub>2</sub>). The Commission shall determine, in consultation with the State Air-Quality Agency, whether additional pollutants should be disclosed.

(c) Emissions for each emission category shall be computed as an annual emission rate in pounds per kilowatt hour. For each emission category, the emission rate of the resource portfolio shall be compared to a reference emission rate. The reference emission rate shall be the New England regional average emission rate. Said reference emission rate may be modified from time to time by the Commission in consultation with the State Air-Quality Agency.

(d) Emission characteristics of the resource portfolio shall be calculated using annual emission rates for each generating facility as identified by the Commission in consultation with the State Air-Quality Agency and the United States Environmental Protection Agency. Until such annual emission rates are identified by the Commission, the annual emissions rates for a generating unit shall be calculated based on one of the following:

(i) Continuous Emissions Monitoring data for the most recent reporting year divided by net electric generation for the same period;

(ii) Emission factors currently approved or provided by state environmental protection agencies, the United States Environmental Protection Agency, or other appropriate government environmental agency, if Continuous Emissions Monitoring data are not available; or

(iii) If the generating unit has been in operation less than one year: (a) for NO<sub>x</sub> and SO<sub>2</sub>, permitted emissions levels; and (b) for CO<sub>2</sub>, the carbon content of the fuel.

(e) The following types of generating units shall be assigned emissions characteristics as provided in this section:

(i) Energy storage facilities. The emissions associated with an energy storage facility shall be the emissions of the energy used as input to the storage device. The characteristics disclosed shall include any losses as a result of storage.

(ii) Cogeneration facilities may make a reasonable allocation of emissions between electricity production and other useful output based on measured heat balances. Said allocation shall be reviewed by the Commission, in consultation with the State Air-Quality Agency.

(iii) The use of offsets associated with facilities that emit CO<sub>2</sub> shall be as determined by the Commission, in consultation with the State Air-Quality Agency.

(E) Format of Information Disclosure Label. The label shall be presented in a format to be determined by the Commission.

III. Company Disclosure. Each Load-serving Entity shall prepare an annual Company Disclosure report that aggregates the Resource Portfolios of all affiliated Load-serving Entities. The Company Disclosure report shall be provided to each customer of a Load-serving Entity prior to the initiation of service and on an annual basis thereafter.

IV. Terms of Service Requirement. Each Load-serving Entity shall prepare a statement entitled "Terms of Service" as described in this section. The Terms of Service shall be distributed in accordance with Rule XXX.01(4), and shall conform to all applicable consumer protection rules and regulations. The Terms of Service shall present the following information:

(A) Actual pricing structure or rate design according to which the Customer will be billed, including an explanation of price variability and price level adjustments that can cause the price to vary;

(B) Length and kind of contract;

(C) Due date of bills and consequences of late payment;

(D) Conditions under which a credit agency is contacted;

(E) Deposit requirements and interest on deposits;

(F) Limits on warranty and damages;

(G) Any and all charges, fees, and penalties;

(H) Information on consumer rights pertaining to estimated bills, third-party billing, deferred payments, and rescission of supplier switch within three days of receipt of confirmation;

(I) A toll-free number for service complaints;

(J) Low-income rate eligibility;

(K) Provisions for Default Service;

(L) Applicable provisions of state utility laws; and

(M) Method whereby Customer will be notified of changes to items in the terms of service.

V. Distribution of disclosure label and terms of service. The label and the Terms of Service shall be distributed in accordance with this section as follows:

(A) Prior to initiation of service. Following a Customer's initial choice of a Competitive Supplier or initiation of Default Service, the Load-serving Entity shall provide the Customer with the disclosure label prepared pursuant to Rule XXX.01(2) and with the statements of the Terms of Service prepared pursuant to Rule XXX.01(3).

(B) Notice. Load-serving Entities shall provide the label to retail Customers on a quarterly basis, at a minimum.

(C) Upon request. The label and the Terms of Service shall be available to any person upon request.

VI. Information disclosure in advertising. A Competitive Supplier shall state the availability of the disclosure label prepared pursuant to Rule XXX.01(2) in a prominent position in all written marketing materials describing generation service, including newspaper, magazine, and other written advertisements, and in all electronically-published advertising including Internet materials. For direct mail materials and similar marketing materials, the label shall be provided with the materials. Where Electricity Service is marketed in non-print media, the marketing materials shall indicate that the Customer may obtain the disclosure label upon request. Prior to the initiation of service, a Customer must have received the Competitive Supplier's disclosure label.

VII. Enforcement. Dissemination of inaccurate information, or failure to comply with the Commission's regulations on information disclosure, may result in suspension, revocation, or non-renewal of a Competitive Supplier's license.

## **Appendix E: Consumer Information Disclosure Reports**

Copies of reports appear on the National Council's Website <http://eetd.lbl.gov/NationalCouncil> and at the Regulatory Assistance Project (RAP) website: <http://www.rapmaine.org/> At the RAP website, documents can be found under the heading "Information Disclosure for Retail Customers".

### **Options Identification and Tracking Overview**

This task identifies the major disclosure and labeling options for environmental and resource mix. Emphasis for the options focuses on information that is currently available for use in possible labels. The task also identifies the likely mechanisms that could be used to trace transactions from generators through sellers, aggregators, or marketers to retail buyers.

### **Price and service Disclosure Generally**

This task identifies the major disclosure options for items other than environmental and resource mix for example, pricing elements, price change formulas, service options and fixed vs. variable rates. The task focuses on items that might be in sample labels, (e.g. price) as well as other items such as risk and important contract terms and conditions that might be provided to customers in other forms.

### **Stakeholder Outreach**

The National Council has held three regional meetings to collect input from stakeholders on a variety of issues with particular emphasis on suggested label content and format. Other issues included whether label information should be historical or prospective, the required level of accuracy, the treatment of energy efficiency, emissions offsets and allowances, the frequency and location of information and enforcement.

### **Customer Focus Groups**

This task involves customer focus groups in six states including focus groups with consumers who have participated in retail competition pilot programs (e.g. New Hampshire). The groups provided feedback on how they perceive competition and on the categories of information consumers want before choosing among electricity suppliers. The groups were also asked for their reactions to different marketing materials.

### **Baseline Tracking Survey**

This task consists of a nationwide survey to collect information about knowledge, attitudes and practices relevant to consumer decisions about electricity service. This task also establishes national and regional baseline data on the issues.

## **Disclosure Testing**

The purpose of this research is to test labeling options for consumer acceptance, ease of use, comprehensibility and task performance (i.e., ability to perform label use tasks). Labeling options will be tested in a controlled, experimental setting that simulates realistic use situations to assess label performance quantitatively.

## **New England Project**

This task involves working with PUCs and stakeholders in the six New England states and making recommendations for uniform disclosure requirements.

## **Large-Scale Pilots**

This task involves large-scale testing of disclosure in the context of retail pilot programs to help design and evaluate the testing of different aspects of disclosure. We have had several conversations with Commissions and utilities that are planning retail access pilot programs.

## **Regional Disclosure Projects**

This task applies the experience from the process used in New England to develop proposed uniform disclosure requirements for other regions. In each region, the Council will work with commissions and all other stakeholders to develop uniform disclosure requirements that fit the needs of the regional market.

## **Consumer Acceptance of Alternative Tracking Approaches**

There are two approaches to tracking fuel mix and air emissions information that is disclosed to consumers. One approach is a contract or settlement approach and the other is a tradable tag approach. Both approaches are described in detail in various National Council reports. The fundamental concern about the tradable tag approach is that it may suffer from a lack of consumer acceptance. The purpose of this research task is to assess the consumer acceptance of alternative tracking approaches and determine whether, and to what extent, the choice of approach influences consumer choice.