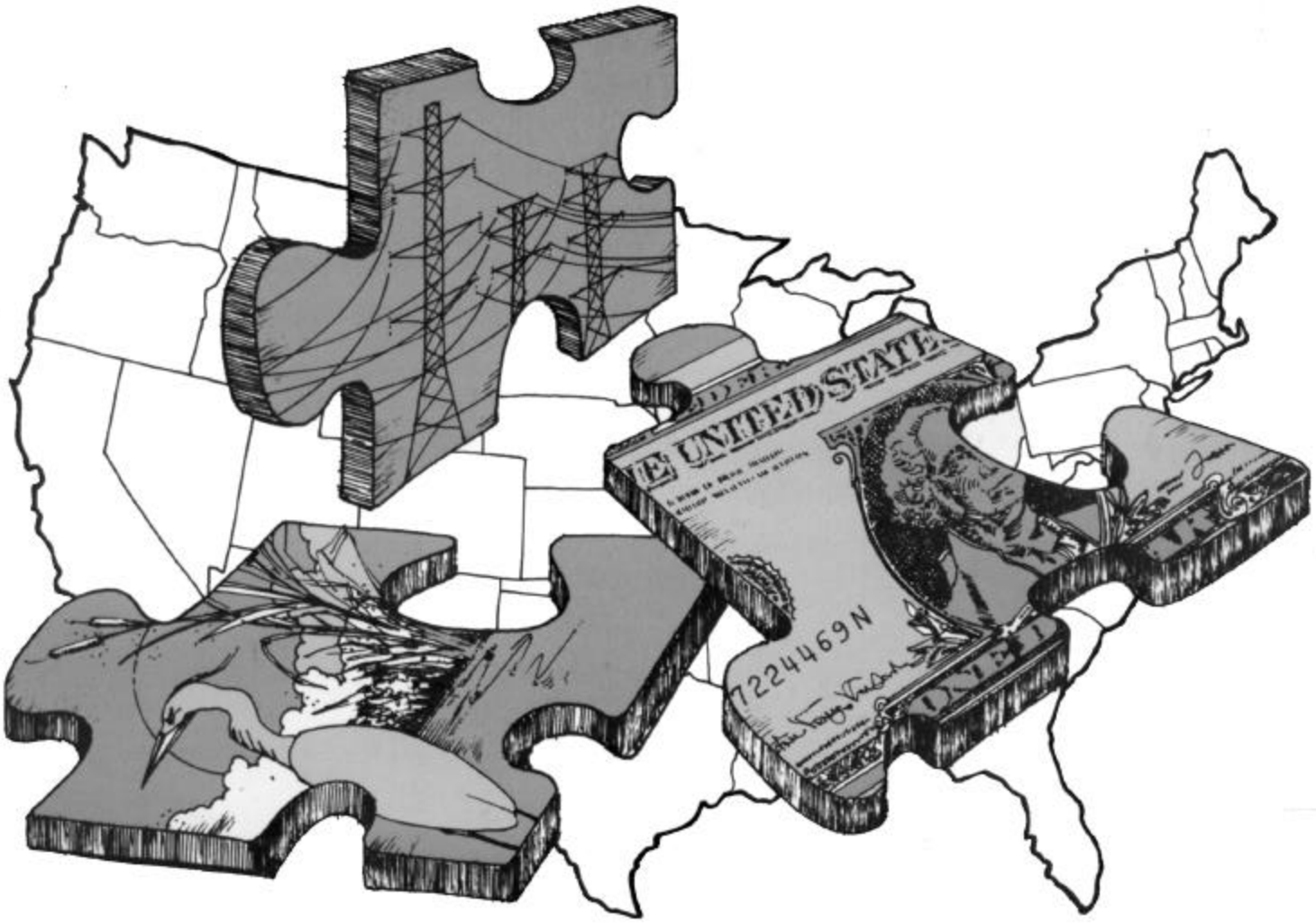
Electric Product Disclosure:
A Status Report



CONSUMER INFORMATION SERIES

National Council on Competition and the Electric Industry

Electric Product Disclosure: A Status Report

The Consumer Information Series

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The Regulatory Assistance Project

The National Council on Competition and the Electric Industry

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INTRODUCTION

Since the early years of the twentieth century and the Progressive Movement, the American public has asked for and received better information about the food they eat and the products they use. In numerous instances, government has stepped in to see that this information is conveyed accurately in a standard and useful form.

Today, the industry that produces and delivers electricity in the United States is in the midst of sweeping changes. Customers in some states now have a choice of electric supplier after decades of monopoly. Some customers without a choice of supplier have one or more purchase options that may feature renewable or environmentally cleaner sources of power, or an innovative pricing structure. Some customers are simply interested in an accurate snapshot of where their utility gets its power and how environmentally sensitive the utility is. Meanwhile, industry resource planning is being left to markets, implying that consumers will influence what power supplies are built based on their purchasing preferences.

Electric product disclosure labels represent a convergence of these trends.

With requirements in 19 states and more considering it, labels are now a fixture, communicating the essence of electricity products to consumers. What remains to be seen is the influence of these labels on consumers, and through them, on the electricity market.

There are many reasons for states to direct electricity sellers to provide product information disclosure. Facing a myriad of choices varying in rate design, terms of service and other qualities, consumers will be more likely to use labels to verify what they think they are buying. The general population of customers will become more knowledgeable and discriminating, though there will always be a significant fraction that remains uninterested. Well-designed labels will alert consumers to products that are not suitable for them. Suppliers are more likely to deliver what they promise. Broad marketing claims can be supported by details and are less likely to be misleading. If a critical mass of the population is unhappy with outcomes illustrated by the label, they can seek larger scale changes.

Electric industry restructuring caused a reconsideration of every facet of electric service, and challenged regulators and the industry to ask and answer the question of whether service could be better. One area with clear potential for improvement regarded the awareness of customers about the electricity product they buy. What does it really cost? How is it made? Where does it come from? What kind of environmental effects does it have? How consistent is it with public policy?

Government became interested in these answers. If the retail electric monopoly was subject to change, there should be rules governing the conduct of the new and harder to oversee retail sellers of electricity, also known as load serving entities, including verifying that they are selling what they say they are selling.

Policymakers reacted to the possibility of misleading information reaching customers. With good information and a choice of suppliers, customers may make better choices among varying levels of environmental quality or pricing complexity.

Sellers of distinctive electric products were also interested in labels. They sought ways to distinguish their price structure, fuel mix, or environmental profile in the eyes of the consumer, and found mandatory standard labels to be a credible way to do that.

Economic and environmental regulators had their own reasons for considering labels. Air offices look for ways to encourage changes in behavior that will lead to cleaner air. Electric power emissions are a dominant percentage of all emissions and merit special attention. Utility regulators are concerned that their ability to direct investment in specific types of generation is waning due to increasing reliance on competition. Educating markets may tend to promote policy goals like diversification of power sources.

In the meantime, some states and utilities with no current plans for retail competition are also considering a label requirement on the basis that this information is part of what consumers should be able to know about their electric service and to demonstrate differences among options offered by the monopoly power company.

These efforts to inform markets through disclosure would be promoted by a coordinated effort to evaluate the effectiveness of existing label designs. Do labels affect consumer confidence in the electricity product they are buying, and the company they are buying it from? While there is a need for information now, the timing of this evaluation should be timed for when customers have had sufficient time to respond to the labels now is use.

As labels become more ubiquitous, the question of standardization emerges, as prior research anticipated, and states will be confronted with the prospect of modifying their designs in the name of regional consistency, as well as to reflect lessons learned from experience.

So far, with electric choice in its infancy, the performance of electric product disclosure labels cannot be measured rigorously, beyond some positive anecdotes. The labels may be best thought of as an investment in the electric industry and its consumers, providing the tools for a time in the not too distant future when more diverse choices are available to an increasingly knowledgeable public.

With this paper, the National Council on Competition and the Electric Industry reviews the progress of the labeling efforts it had a hand in initiating several years ago. The significant early research sponsored by the Council was important in demonstrating the prospective value in electric product disclosure and how policymakers might go about implementing it. This work remains relevant today, and is available at http://www.ncouncil.org. The Regulatory Assistance Project conducted key elements of that early research, and returns to aid the Council in its review.

I. GOALS OF DISCLOSURE

As articulated in a 1998 National Council synthesis report of two years of work, the commonly held purposes for disclosing basic facts to retail electric consumers are to:

- Allow customers to make choices they wish to make and thereby achieve customer-driven outcomes;
- Enhance customer protection;
- Make electricity markets more efficient.[1]

With the passage of time and developments on the stage of electric industry restructuring, it is appropriate to reconsider these goals.

A. CHOICES

In 2002, the electricity product choices consumers have are not the ones many policymakers thought would prevail four or six years ago. In those times, retail competition was a policy freight train gathering steam. Most states would embrace retail competition. Retail markets would have competitors, including a subset of competitors emphasizing price in different ways, and another subset emphasizing environmental quality. Imagination allowed for the prospect of innovative products that would combine regulated and unregulated energy forms and other surprises.

Today, this level of competition is rare. While there remains some prospect that this future will develop, an extended transition period has begun, with no clear end in sight.

So what of the goal to facilitate customer choice? Interestingly, while the development of competitive customer choice has stalled, other customer choices are developing. In both choice and monopoly states, default suppliers[2] are developing more options for retail customers. Among the choice states, Oregon is distinct with its menu of options for customers who choose not to choose,[3] and Pennsylvania is also developing plans to add a renewable option to default service. In monopoly areas, so-called "green marketing" is becoming more common among utilities, led by such giants as Tennessee Valley Authority and Xcel Energy, and by more modest operations including many municipal light departments.

Labels continue to have a compelling role to support these choices.

B. CONSUMER PROTECTION

The story is still being written, but the goal of consumer protection is as important as ever. Evidence accumulated over the last five years suggests that electricity consumers need clear information about the service they receive. Early abuses at the retail level, and more recent

[1] Moskovitz, David, Cheryl Harrington, Thomas Austin, Synthesis Report: A Summary of Research on Information Disclosure, The National Council on Competition and the Electric Industry, October 1998.

[2] Here, the term "default supplier" refers to the company supplying energy to customers who cannot choose (the distribution utility in monopoly states) and, where choice is allowed, the companies selected or designated to serve customers who decline to choose. This service is also known as "standard offer" or "last resort" service.

[3] Default service for Portland General Electric territory consumers in Oregon includes five options, two which are price sensitive, and three which address the environment in differing ways.

abuses in the wholesale market indicate the value of policymakers requiring clear, unambiguous statements from supplier to consumer about service parameters and expectations. The act of requiring more transparent information makes consumer abuses more difficult.

The perpetual problem of ambiguity attached to words like "clean," "green," and even "renewable," and "fish friendly" indicate the value of the definitional rigor and depth that accompanies the label.

C. EFFICIENT MARKETS

The capacity of labels to make electricity markets more efficient remains an open question. The primary reason for this is that there has not been a thorough evaluation of label performance in the states in which they are used. While it is evident that in at least some cases, the presence of renewable-oriented options has led to construction of more renewable generators, it is not clear what role the label is having in bringing about this result.

Perhaps more fundamentally, however, the level of competition in many states with retail competition remains low. With many customers sitting tight with default service at capped prices, the immediate value of the label to influence markets appears far less than initially anticipated.

With the many difficult issues at play in the electric industry today, attention of policymakers to the effectiveness of electric product disclosure labels is hard to sustain.

Still, it is plausible that labels are developing awareness among customers who receive them that will enable them to act over time more in alignment with their interests. This view is demonstrated in Minnesota. A state government-wide initiative to deliver more information to the public has led to a Public Utility Commission initiative to provide periodically a disclosure statement to all electric consumers.[4] In this case, an inherent value in the information is presumed, the goal being a population more educated about fundamental elements of their lives.

The work of the National Council on Competition and the Electric Industry was certainly driven by this sensibility, though it may not have been stated quite so clearly in the many reports it produced in the 1996-98 period. One important manifestation of the idea that all consumers should receive information about their electricity supply was the project to develop uniform consumer disclosure standards for New England.[5] The project was a collaborative process with many diverse stakeholders, including significant government participation. Among the outcomes was the model label, Figure 1.

[4] Studders, Karen. The Power of Environmental Information, presentation to Energy, Environment and Transportation Summit, May 16, 2002

[5] Austin, Thomas, David Moskovitz, Cheryl Harrington. Uniform Consumer Disclosure Standards for New England. The National Council on Competition and the Electric Industry. January 1998.

The National Council/NECPUC Model Label

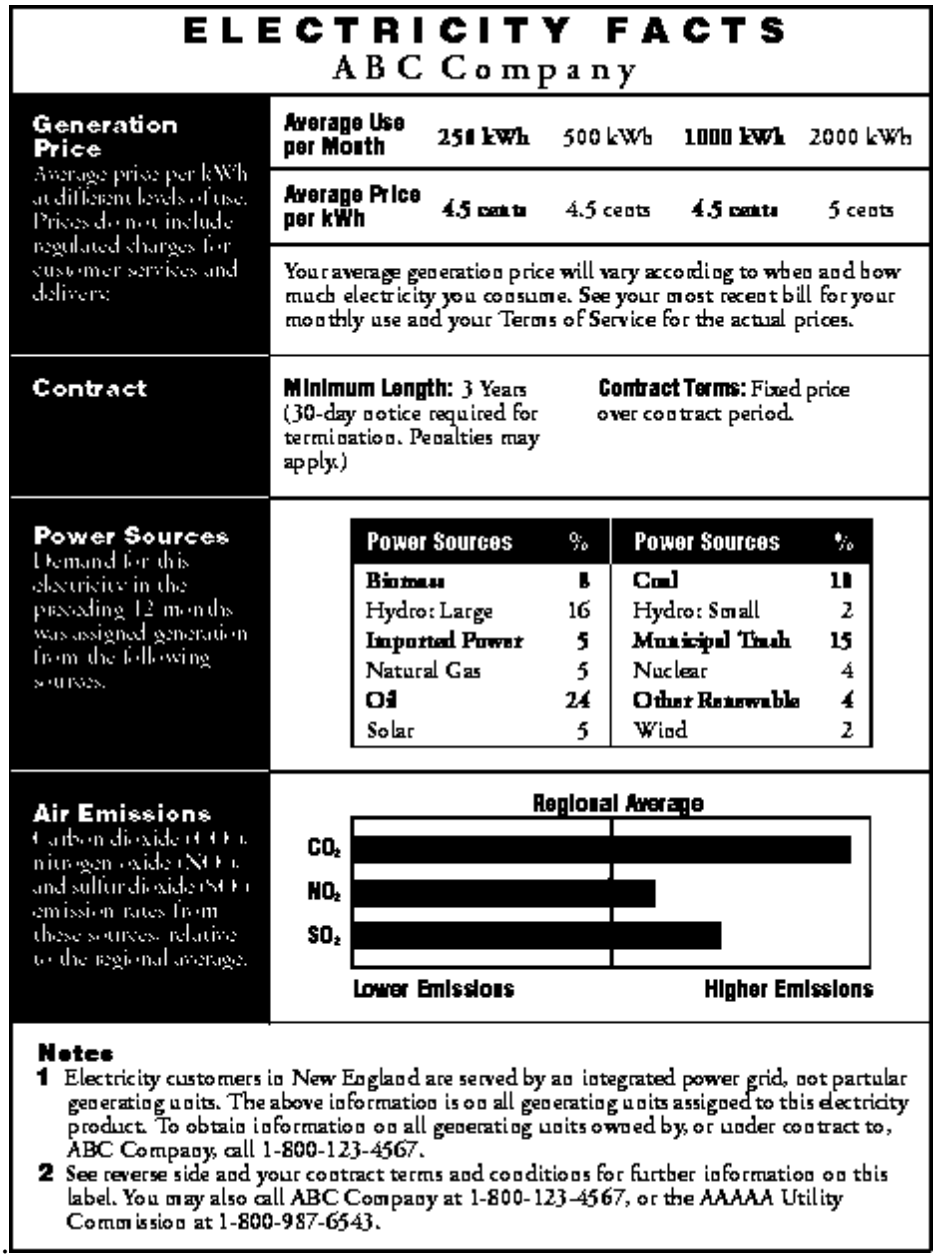
The model label contains average price information at four usage levels, terms of service information addressing price stability and cancellation provisions, fuel mix in a tabular form and emissions of three gases, SO_2, NO_x, and CO_2, compared with a regional average. The label also includes a statement explaining the network nature of the electric grid and consumer assistance contact information.

The six states of the New England Conference of Public Utility Commissions and stakeholders of all stripes were brought together at the National Council to see if a common label design could be developed for New England. The group met over several months in 1997 in meetings facilitated by The Regulatory Assistance Project and developed the label in Figure 1.

The underlying premise of retail electric competition is that customers as a population have distinct preferences concerning their electric service that are unlikely to be served by a monopoly provider. The electric product disclosure label provides a simple way for customers to check the compatibility of the product with their priorities. Since markets for electricity are regional, creating a label that is consistent across a natural market region can be beneficial for both consumers and suppliers. This regional aspect was the distinction of the New England project. It remains to be seen, however, if the underlying premise prevails across the bulk of the population of electric customers, or if only an insignificant minority of consumers holds distinct preferences.

D. PUBLIC INTEREST GUIDANCE ON LABELS

Two institutions that had a significant effect on the development of electric product disclosure labels are the U.S. Federal Trade Commission (FTC), and the National Association of Attorneys General (NAAG). While there are some distinctions in emphasis, these organizations were motivated to engage in this discussion for the same basic reason: with choice of electric product comes the potential for confusion and deception. The way labels are designed and used can reduce confusion and deception, or they can make them worse.



ELECTRICITY FACTS
ABC Company

Generation Price
Average price per kWh at different levels of use. Prices do not include regulated charges for customer services and delivery.

Average Use per Month	250 kWh	500 kWh	1000 kWh	2000 kWh
Average Price per kWh	4.5 cents	4.5 cents	4.5 cents	5 cents

Your average generation price will vary according to when and how much electricity you consume. See your most recent bill for your monthly use and your Terms of Service for the actual prices.

Contract

Minimum Length: 3 Years (30-day notice required for termination. Penalties may apply.)

Contract Terms: Fixed price over contract period.

Power Sources
Demand for this electricity in the preceding 12 months was assigned generation from the following sources.

Power Sources	%	Power Sources	%
Biomass	**8**	**Coal**	**18**
Hydro: Large	16	Hydro: Small	2
Imported Power	**5**	**Municipal Trash**	**15**
Natural Gas	5	Nuclear	4
Oil	**24**	**Other Renewable**	**4**
Solar	5	Wind	2

Air Emissions
Carbon dioxide (CO_2), nitrogen oxide (NO_x), and sulfur dioxide (SO_2) emission rates from these sources relative to the regional average.

Notes
1. Electricity customers in New England are served by an integrated power grid, not partular generating units. The above information is on all generating units assigned to this electricity product. To obtain information on all generating units owned by, or under contract to, ABC Company, call 1-800-123-4567.
2. See reverse side and your contract terms and conditions for further information on this label. You may also call ABC Company at 1-800-123-4567, or the AAAAA Utility Commission at 1-800-987-6543.

Figure 1: A model electric product disclosure label emerging from the National Council – NECPUC collaborative process.

In its most recent report on electric industry restructuring the FTC addressed these concerns about disclosure policy:[6]

- Accuracy – The report expressed the concern that simplifications on matters like the use of system power could throw off the accuracy of the fuel mix and environmental information. Inaccurate information in this context, of course, defeats the fundamental purpose of the label.

[6] Federal Trade Commission Staff, Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition, pp. 68-72, 78. September 2001.

- Claim-based approaches – Systems that require disclosure only when claims are made run the risk of creating disputes about what claims are sufficient to trigger the requirement. The report expresses concern about the potential ambiguity of claim-based requirements.[7]
- Regional consistency and coordination – The report raises the issue of regional approaches to disclosure, and cites New England as a place where there has been some effort toward consistency. It also raises but does not provide an opinion on the suggestion to have a national standard for disclosure labeling. While expressing a preference for standardization and mandatory requirements, the report does observe that the interest of standardization must be married with the interest of promoting innovation. If products emerge for which current label designs may not be well suited the standard label should be reassessed.[8]
- Level of detail – The report warns that excessive disclosure requirements may not work with advertising, keeping useful information out of this medium.

Elsewhere in the report, FTC presages an additional issue that may challenge policymakers interested in disclosure: real time pricing. Labels that present information on price are generally reporting fixed price information, or price information that might reflect unit price changes at different levels of sales volume. If demand side participation in markets develops, facilitated by exposure to real time price changes, policymakers will need to assess disclosure labels to assure that pricing information on labels continues to be indicative of realistic expectations and is not misleading.[9]

The NAAG adopted Environmental Marketing Guidelines for Electricity in 1999.[10] The guidelines address the potential for deception of electric consumers and argue for rules that will not allow deceptive practices. The guidelines build on "state laws which prohibit the use of misleading or deceptive advertising claims" and were expressly directed at marketers who could be investigated and prosecuted if they stray from the spirit of state laws.

Deception can happen with a false claim, or through omission of relevant information. The focus of the NAAG guidelines is on the outcome – if the claim tends to mislead, it is deceptive.

The NAAG guidelines stress the importance that all claims should be subject to a reliable and credible system of substantiation. The guidelines then address the communication itself and stress the clarity of the presentation.

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[7] Early National Council work indicates that mandatory standard labels lead consumers to increased confidence that they have adequate information to choose, and to correctly identify low cost and low environmental impact choices. Winneg, Kenneth, Melissa Herrmann, Alan Levy, Brian Roe,"Label Testing: Results of Mall Intercept Study, National Council on Competition and the Electric Industry, October 1998.

[8] To date, very few products fitting this definition have actually reached the market. Providing for the possibility that such products will emerge eventually is a sound approach, however. It is fair to be concerned about how easy it would be to modify a national standard label, once one is created.

[9] The Federal Energy Regulatory Commission is entertaining proposals from the industry and from states on the topic of demand response and real time pricing. The concern is that a wholesale market in electricity will not work in the consumers' interest if there is no way for at least some consumers to modify their consumption in response to market prices.

[10] Environmental Marketing Sub-Committee of the Energy Deregulation Working Group. NAAG, December 1999.

Interestingly, the guidelines clearly opt for explanatory language that illuminate the facts that are presented (i.e. effects of a particular air emission or fuel used). This idea appears to present the potential for conflict with the FTC concern for "excessive" information on the label, and presents the opportunity for state policy to weigh the merits of brevity and descriptiveness and to make choices on labeling with these two public interest points of view in mind.

NAAG Guidelines – Stated Purposes

1. Diminish potential for deceptive environmental marketing by providing guidance to the electric power industry as it undertakes to craft its advertising and information campaigns.
2. Facilitate compliance with the law by providing industry with an interpretation from the Attorneys General of the meaning of state prohibitions on deceptive and misleading advertising in the context of environmental advertising for electricity.
3. Offer a model for state legislation and/or rulemaking.

II. DISCLOSURE LABELS AND PRACTICES

A. A SURVEY OF THE STATES

States are often called laboratories of innovation. A survey of state labeling practices demonstrates the truthfulness of this maxim. States with mandatory electric product disclosure labeling programs:

Arizona	Maine	Ohio
California	Maryland	Oregon
Colorado	Massachusetts	Texas
Connecticut	Michigan	Virginia
District of Columbia	Minnesota	Washington
Florida	New Jersey	
Illinois	New York	

Together, these states represent 63.8% of the population of the United States. These states require load serving entities to deliver electric product disclosure labels to customers. Some utility territories within some of these states may be relieved of this responsibility, notably smaller companies and publicly owned companies. In some cases, final rules are still being written.

The Tennessee Valley Authority has adopted electric product disclosure for the municipal systems it supplies with a renewable-oriented option – it is up to the supplier to pass the information on to the ultimate consumer and several do.

A Rhode Island rule requires load serving entities making a claim of product content or environmental characteristic to provide a label.[11] Delaware has adopted a similar rule. Virginia and Pennsylvania adopted a similar rule, except that information is sent to consumers only on request. In the case of Pennsylvania, there is a requirement that the load serving entity send the information to the state, which audits the data.

Several more states adopted laws leading to retail electric competition, and some of these required electric product disclosure. Responding to second thoughts about the benefits of retail electric competition, these states have delayed moving to competition. As a result, the process of developing disclosure requirements in these states is also delayed. These states include Arkansas, New Mexico and Nevada.[12]

In a different permutation, Montana, a state that has moved to restructuring, did initiate a rulemaking on the subject of electric product disclosure, but that effort has stalled and no requirement is in place.[13] New Hampshire has retail electric competition, but no requirement to disclose fuel mix or environmental information to customers.

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[11] Rhode Island Public Utilities Commission regulations, " Consumer Protection Requirements for Nonregulated Power Producers, December 31, 1997. According to the Rhode Island PUC, no suppliers are presently making such claims in Rhode Island, so there is no disclosure happening there. Douglas Hartley, Rhode Island Public Utility Commission, Personal Communication, May 22, 2002.

[12] Arkansas: 1999 Act 1556; New Mexico: NMSA 62-3A-9.F; Nevada: NRS Chapter 704

[13] MCA Title 69 Chapter 8-102, 403. Proposed rules issued November 8, 1999.

In 2002, the Vermont legislature passed a law authorizing the Public Service Board there to require electric product disclosure.[14] There is no requirement in Vermont until the regulator acts, so it is not included in this list. A similar proposal was considered by the Rhode Island legislature, but failed to be included in the bill that ultimately passed. The Minnesota PSC is ordering disclosure in a brochure form after a collaborative discussion among stakeholders. The New Hampshire PUC has initiated an administrative discussion on electric product disclosure policy that may lead to action in 2003.[15]

Some states, including Missouri, are debating in their state legislatures the idea of making disclosure mandatory for electricity providers.

Following is a thumbnail sketch of disclosure practices in the states where they exist or are being considered with citations to state rules or laws as appropriate.[16] Tables 1 and 2 summarize the fuel mix and environmental profile data for labels in each state with a disclosure requirement.

Arizona

Arizona has adopted retail electric competition. Retail suppliers, including default service providers, are required to provide disclosure notices to consumers on request. The information must also be provided in marketing materials, and when a customer switches suppliers. There is no standard form at this time. The notice of Arizona Public Service includes a table of fuel mix, and emissions of three gases in a bar chart. Price and term information is also included, as well as a brief explanation about the network nature of the power grid. Labels will be updated annually. Arizona Corp. Comm. Rule R14-2-1617

California

California has adopted retail electric competition. All retail electric suppliers, including default service providers, are required to provide disclosure notices to consumers quarterly. The Energy Commission has developed a standard format, including a "Label Calculator" which enables the load serving entity to take a standard set of inputs into a spreadsheet and produces the standard label. The label includes a table of the product fuel mix, and the state average for the previous year for comparison. The Energy Commission also created a system for Generators to produce certificates that can be passed along to end use suppliers to substantiate claims to a specific quantity of attribute. These certificates are registered with the CEC. Environmental factors do not appear on the label. 1997 Senate Bill 1305, Article 14 of Chapter 2.3 of Part 1 of Division 1 of the Public Utilities Code.

Colorado

Colorado retains a monopoly electric industry. The two largest electric companies in the state (load greater than 100 MW) are required to provide disclosure notices to customers semi-annually. The Public Utility Commission provides the format. Colorado is unique in providing information about the portion of the consumers' bills attributable to

[14] S. 138, 30 VSA 209 (f)
[15] Personal Communication, Alex Lee, New Hampshire PUC, July 2002.
[16] Assembly of this information was made easier by the Green Power pages on the DOE Energy Efficiency and Renewable Energy website, http://www.eren.doe.gov/greenpower/disclosetxt.shtml

transmission and distribution, and the portion attributable to power supply. The label includes the utility fuel mix for the previous year. Rule (4 Code of Colorado Regulations) 723-3-10(f)

Connecticut

Connecticut has adopted retail electric competition. At this time, implementation of disclosure requirements by state regulators is not complete. When implemented, disclosure will occur quarterly. Some competitive suppliers are voluntarily providing labels. These labels are tabular, and include comparisons, though each vendor apparently chooses different versions of system averages, and only one provides emissions information. Public Act 98-28, Section 16-245o-p

Delaware

Delaware has adopted retail electric competition. Information supporting specific claims must be provided to consumers. 1999 House Bill 10, PSC Docket No. 49

District of Columbia

The District of Columbia has adopted retail electric competition. The adopting law required that electricity suppliers disclose fuel mix subject to regulators considering the feasibility of this requirement. Presently, suppliers are providing this information to regulators. Regulators have not yet made decisions on a label design. When an appropriate method for delivering this information to consumers is determined, retail disclosure will be required. D.C. Law 13-107 Section 105, PSC Docket No. 945 Order No. 12065

Florida

Florida retains a monopoly electric industry. Electric companies are required to disclose fuel mix information quarterly in a manner of their choosing. Among the methods utilities are the customer text message space on the bill itself, or general customer information brochures. The information is annual, and regularly updated through the year. Rule 25-6.093, Florida Administrative Code

Illinois

Illinois has adopted retail electric competition. All retail sellers are subject to the label requirement. Fuel mix information for a rolling 12 month period is provided both in a table and in a pie chart. Emissions and Nuclear Waste data per MWh are also supplied in a table. Commonwealth Edison also publishes a brochure which includes regional averages for five Midwestern states for comparison of product fuel mix and emissions data. Labels are sent quarterly and information for the most recent 12 month period is updated quarterly. 83 Illinois Administrative Code Part 421

Maine

Maine has adopted retail electric competition. All retail electric suppliers, including default service providers, are required to provide disclosure notices to consumers quarterly. The Public Utility Commission has developed a standard format. The label includes pricing information for various consumption levels, a statement of price terms, including the duration prices are good for, a table of the product fuel mix, and a bar chart of three air emissions, compared with the New England average per energy unit. There is also significant descriptive information on how to interpret the information, including explanations of the source and concern regarding air emissions, and of the network nature of the power grid. PUC Rules Chapter 306

Maryland

Maryland has adopted retail electric competition. All retail electric suppliers are required to provide labels semi-annually. Labels contain fuel mix information and air emission for three gases. These are compared with regional averages. Explanation of the concern regarding these three gases is also included, as well as a statement about the network quality of the electric grid. Code of Maryland 7-505b, PSC Order No. 76241.

Massachusetts

Massachusetts has adopted retail electric competition, though it is optional in municipal electric territories. All retail electric suppliers where competition prevails are required to provide labels quarterly. Labels contain average price information at four prescribed usage levels, and terms of service, including length of price stability and termination conditions. Labels contain tabular fuel mix information and air emission for three gases presented in a bar chart. These are compared with regional averages. Explanation of the concerns regarding these three gases is also included, as well as a statement about the network quality of the electric grid. Uniquely, labels also contain the percentage of energy produced at facilities with union contracts, and energy produced at facilities that used replacement labor during specific labor actions 1997 and 1998. The reverse includes further explanation about distinct types of power sources and more information about price, terms, emissions, and labor. 220 CMR 11.06, DTE Docket 96-100

Michigan

Michigan has adopted retail electric competition. All suppliers must provide average pricing information based on two prescribed usage levels. Semi-annually, all alternative suppliers must provide data on product fuel mix compared to a specific regional average and data on emissions for three gases as well as on high level nuclear waste generated per unit of energy. This is rolling annual data. Other consumer protection- oriented statements are also mandated. 2000 Public Act 141 Sec. 10r (1), PSC Docket U-12487

Minnesota

Minnesota retains a monopoly electric industry. The executive branch and the Public Utilities Commission have been developing a disclosure brochure which will be sent semi-annually, and which will contain information on price, terms, fuel mix, and environmental effects, as well as

detailed explanatory information. Minnesota Statutes 216B.81, Subd. 1, Docket No. E-999/R-01-1671.

New Jersey

New Jersey has adopted retail electric competition. Labels are issued semi-annually and include fuel mix in a table, and emissions of three gases compared with a New Jersey average. A summary of energy efficiency savings in energy and in emissions from the supplier's programs also appears on the label. Explanatory information concerning emissions and concerning the network quality of the grid is included. N.J.S.A 48:3-50.c (5) Docket No. EX01010059

New York

New York has adopted retail electric competition. All consumers receive a label semi-annually that includes fuel mix, and emissions of three gases. The emissions data are compared with the state average per energy unit, though no values (i.e. pounds per MWh) are used. There are explanatory statements about each of the emissions and a disclaimer that other effects not listed may result. Distinct from other states, the New York Public Service Commission, with the cooperation of the NY-ISO, calculates the data that applies to each load serving entity and provides the data to each for distribution to consumers. The PSC has ordered that the necessary transaction information be available with appropriate commercial protections to the ISO and its staff to make the calculations. This means information is derived by tracking actual transactions from generator to customer. There is a detailed procedure, called a "conversion transaction," for assigning discrete blocks of spot market energy to a particular load serving entity that creates a tagging equivalent. In this way, New York blends tracking and tagging. PSC Opinion No. 98-19, Case 94-E-0952

Ohio

Ohio has adopted retail electric competition. All consumers receive the label quarterly, as well as with marketing materials. Information on the labels will be forecasted annually, and updated through the year. Fuel mix data is in a pie chart form. Rules provide for the black and white shading that will apply to each fuel category, a unique feature that seeks to assure consistent reproducibility without color in a manner that reduces the prospect of deception. Environmental information is also reported, including three gases, plus both low level and high level nuclear waste. Both projected fuel mix and environmental data are compared with regional averages. Adjusted fuel mix data in mid-year is compared with the projection. The label also contains a table listing the fuel types and a brief (five words or less) description of the environmental effects of each. Ohio PUC Rule 4901:1-21-09

Oregon

Oregon has adopted retail electric competition. Disclosure rules apply to the larger companies, serving more than 25,000 customers. All customers in the territories of applicable companies have a portfolio of choices which feature renewable energy prescribed by regulation. Labels are delivered quarterly and include fuel mix information, presented in a uniquely oval pie chart, and environmental information that includes three gases and nuclear waste. The environmental data is compared with a regional average. The label also contains terms of service (minimum

commitment duration and price stability), the method with which bills will be calculated, and other information about the service. The Public Utility Commission prescribes the format. Marketing information presents all default provider options in a brochure with consumer education as well as explanations of the environmental concerns. Oregon Administrative Rule 860-038-0300

Pennsylvania

Pennsylvania has adopted retail electric competition. Information on load serving entity fuel mix must be provided to the Public Utility Commission, and is available to consumers on request. Suppliers are required to explain the network nature of the electric grid, and to inform consumers about how they can access information. In marketing materials, pricing information must be reported at three different usage levels. 52 Pennsylvania Code 54.6

Rhode Island

Rhode Island has adopted retail electric competition. Information supporting specific claims of fuel content or emissions must be provided to consumers. If the load serving entity makes no specific claims, then there is no disclosure obligation. R.I.G.L. Sec. 39-1-27.1 PUC Regulation, "Consumer Protection Requirements for Nonregulated Power Producers"

Tennessee Valley Authority

TVA provides power to municipal electric departments and electric cooperatives and a small number of retail customers in seven states.[17] TVA has begun to offer its customers a renewable energy-oriented product. It has secured Green-E certification for this product, and provides a label with information about the fuel mix and emissions of their standard product and of the renewable product. Customers can buy multiple energy blocks of the renewable product, so their resulting mix reflecting some of each product would have to be calculated by the customer. See Figure 2 for a TVA label.

Texas

Texas has adopted retail electric competition. Labels with a design prescribed by the Public Utility Commission are distributed semi-annually and contain fuel mix, presented as a table, and emissions data, presented as a bar chart. These are compared with Texas averages. Use of tradable renewable energy credits is expressly permitted. Labels also contain average energy prices at three usage levels, and a section with terms of service concerning duration and cancellation provisions. Texas Laws Chapter 25, Subchapter R, Section 25.476.

Vermont

Vermont law allows the Public Service Board to require labels. Labels would be distributed no more frequently than annually. The labels may include information on price, terms and

[17] TVA serves Tennessee, significant parts of Alabama, Georgia, Kentucky, Mississippi, and bits of North Carolina and Virginia. It is included here because of its dominant status in several of the states in which it serves, and its "self-regulating" characteristics. See http://www.greenpowerswitch.com

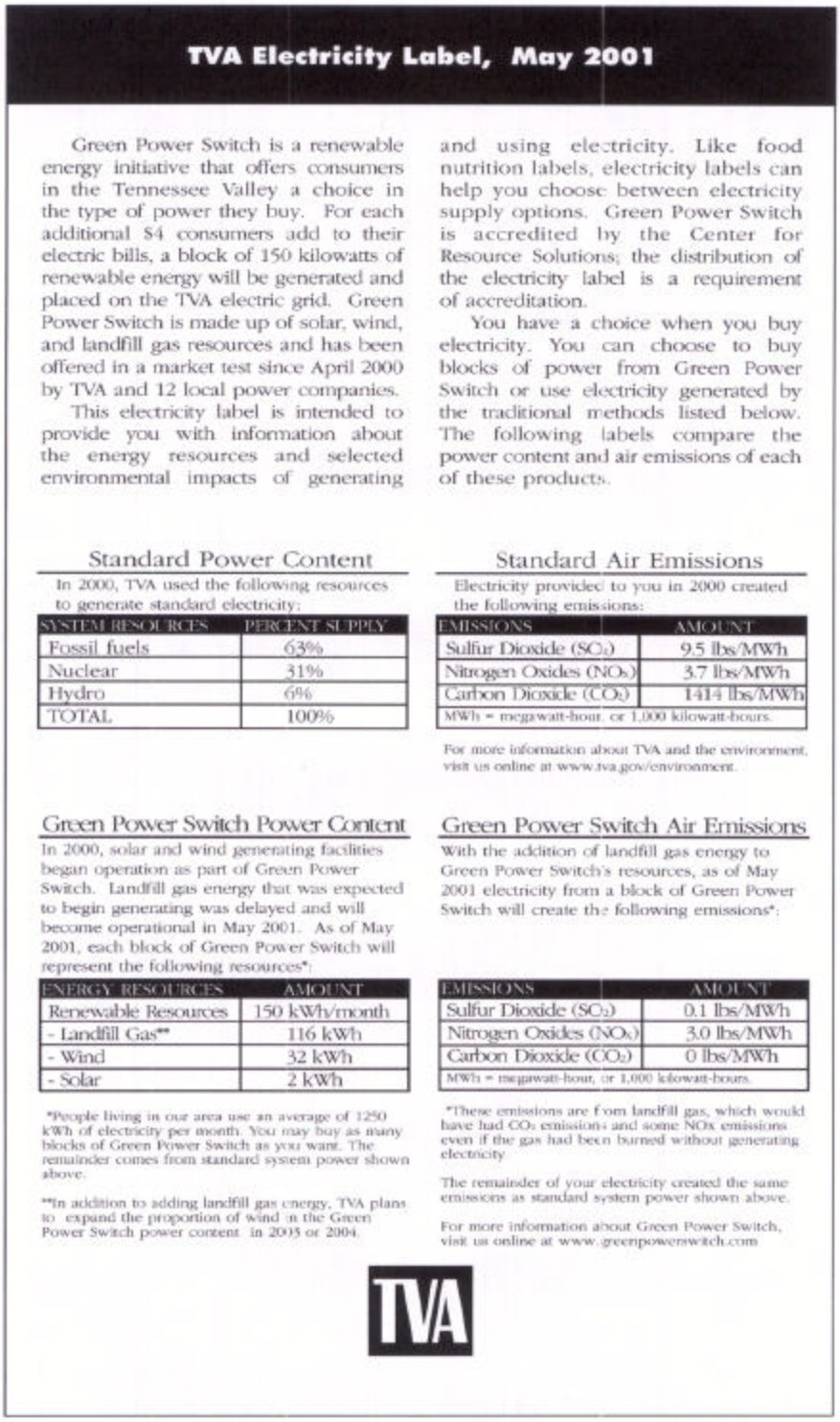
conditions, fuel mix, environmental effects, and other services provided including energy efficiency. The board is instructed to weigh the costs and benefits of the label, and leaves to the board's discretion other details. 30 VSA 209 (f)

Virginia

Virginia has adopted retail electric competition. Disclosure information emphasizes consumer protection. Pricing information based on 1000kWh per month (this rule also applies to sellers of natural gas) is available in marketing materials and in a "customer service contract" that prospective customers receive before they commit to service. Information to support specific claims must be available to consumers on request. 20 VAC 5-312-70

Washington

Washington retains a monopoly electric industry. Labels will be provided semi-annually, as well as when the customer initiates service, and in marketing materials. In addition, utilities are required an additional two times per year to remind customers about how they can obtain the prevailing label in print or electronic form. Smaller municipal systems (defined as 25,000 customer or fewer, or as having seven or fewer customers per mile) have to provide the label once each year, and they can choose to include it in a newsletter. Fuel mix is presented as a table. House Bill 2565 RCW chapter 19.29A.



TVA Electricity Label, May 2001

Green Power Switch is a renewable energy initiative that offers consumers in the Tennessee Valley a choice in the type of power they buy. For each additional $4 consumers add to their electric bills, a block of 150 kilowatts of renewable energy will be generated and placed on the TVA electric grid. Green Power Switch is made up of solar, wind, and landfill gas resources and has been offered in a market test since April 2000 by TVA and 12 local power companies.

This electricity label is intended to provide you with information about the energy resources and selected environmental impacts of generating and using electricity. Like food nutrition labels, electricity labels can help you choose between electricity supply options. Green Power Switch is accredited by the Center for Resource Solutions; the distribution of the electricity label is a requirement of accreditation.

You have a choice when you buy electricity. You can choose to buy blocks of power from Green Power Switch or use electricity generated by the traditional methods listed below. The following labels compare the power content and air emissions of each of these products.

Standard Power Content

In 2000, TVA used the following resources to generate standard electricity:

SYSTEM RESOURCES	PERCENT SUPPLY
Fossil fuels	63%
Nuclear	31%
Hydro	6%
TOTAL	100%

Standard Air Emissions

Electricity provided to you in 2000 created the following emissions:

EMISSIONS	AMOUNT
Sulfur Dioxide (SO_2)	9.5 lbs/MWh
Nitrogen Oxides (NO_x)	3.7 lbs/MWh
Carbon Dioxide (CO_2)	1414 lbs/MWh

MWh = megawatt-hour, or 1,000 kilowatt-hours.

For more information about TVA and the environment, visit us online at www.tva.gov/environment.

Green Power Switch Power Content

In 2000, solar and wind generating facilities began operation as part of Green Power Switch. Landfill gas energy that was expected to begin generating was delayed and will become operational in May 2001. As of May 2001, each block of Green Power Switch will represent the following resources*:

ENERGY RESOURCES	AMOUNT
Renewable Resources	150 kWh/month
- Landfill Gas**	116 kWh
- Wind	32 kWh
- Solar	2 kWh

*People living in our area use an average of 1250 kWh of electricity per month. You may buy as many blocks of Green Power Switch as you want. The remainder comes from standard system power shown above.

**In addition to adding landfill gas energy, TVA plans to expand the proportion of wind in the Green Power Switch power content in 2003 or 2004.

Green Power Switch Air Emissions

With the addition of landfill gas energy to Green Power Switch's resources, as of May 2001 electricity from a block of Green Power Switch will create the following emissions*:

EMISSIONS	AMOUNT
Sulfur Dioxide (SO_2)	0.1 lbs/MWh
Nitrogen Oxides (NO_x)	3.0 lbs/MWh
Carbon Dioxide (CO_2)	0 lbs/MWh

MWh = megawatt-hour, or 1,000 kilowatt-hours.

*These emissions are from landfill gas, which would have had CO_2 emissions and some NO_x emissions even if the gas had been burned without generating electricity.

The remainder of your electricity created the same emissions as standard system power shown above.

For more information about Green Power Switch, visit us online at www.greenpowerswitch.com

TVA

Figure 2: Information provided by TVA to publicly-owned distribution companies about its system power and its "Green Power Switch" product.

Table 1. Electric Product Disclosure Labels – Information on Fuel Sources Listed by State

	AZ	CA	CO	CT	IL	ME	MD	MA	MI	NJ	NY	OH	OR	TV	TX	WA
Coal Lignite	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x
Nuclear	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Gas		x	x	x	x	x	x	x	x	x	x	x	x		x	x
Oil			x	x	x	x	x	x	x	x	x	x				x
Fossil Gas/Oil	x													x		
Hydro	x		x		x	x	x		x		x	x	x	x		x
Large Hydro		x						x		x						
Small Hydro		x		x				x		x						
Tidal										x						
Solar	x	x	x	x	x	x	x	x		x	x	x		x		x
Wind		x	x	x	x	x	x	x	x	x	x	x	x	x		x
Wood									x							
Biomass				x	x	x	x	x	x	x	x					x
Biofuel									x							
Biomass Waste		x	x						x							
MSW				x		x	x	x		x	x		x			x
Fuel Cells				x						x						
Methane				x			x			x				x		x
Other Fossil							x									
Geothermal		x	x				x			x			x			x
Other Renew						x	x	x							x	
Unknown					x							x				
Imports			x	x				x								
Other		x		x	x							x	x		x	x
Compare Sys Avg.		x		x	x			x	x			x		x	x	
Pie					x				x			x	x			
Table	x	x	x	x	x	x	x	x		x	x			x	x	

Table 2. Electric Product Disclosure Labels – Information on Environmental Listed by State

	AZ	CA	CO	CT	IL	ME	MD	MA	MI	NJ	NY	OH	OR	TVA	TX	WA
SO_2	x			x	x	x	x	x	x	x	x	x	x	x	x	
NO_x	x			x	x	x	x	x	x	x	x	x	x	x	x	
CO_2	x			x	x	x	x	x	x	x	x	x	x	x	x	
Hi Lev Nuclear					x							x	x		x	
Low Lev Nuclear					x							x				
Particul									x						x	
Mercury									x							
Bar	x					x		x		x	x	x	x		x	
Compare syst avg.				x		x	x	x	x	x	x	x			x	

Notes for Tables 1 and 2

The Connecticut renewable portfolio standard reports two classes of renewable energy. These are reflected on the label.
The fuel and environmental categories in Connecticut remain subject to final ruling by the DPUC.
Florida requires fuel mix disclosure but does not specify how the information is conveyed.
The Minnesota PUC was close to releasing Minnesota's rules on disclosure at the time this publication was completed.
District of Columbia is writing its rules implementing disclosure, so there are no specific directions to suppliers at this time.
Virginia disclosure requirements address price and commercial terms at the point of sale. In addition, any information to support claims must be provided on request.

B. STANDARDIZATION: LESSONS FROM THE LABELS

If disclosure labels represent experiments in innovation, what lessons will be learned, and will there be changes to the labels or other market practices to reflect these lessons? A consistent theme in the work of the National Council, the NAAG and the FTC is that standardization of electric product disclosure labels has value. The food industry was a strong influence for the preference to standardize.

An examination of the labels developed by states and load serving entities over the past five years shows a decidedly mixed result on the goal of standardization.

In terms of content, states took these varying approaches:

- Use of historic vs. projected data
- Specific fuel mix categories

- Whether to compare with regional data
- Use of explanatory phrases for electric grid emissions and generic impacts of different fuels
- The fundamental purpose of the disclosure: addressing just the environment, just consumer protection, or both.

Separate from content, states varied in approach on appearance:

- Layout
- Use of pie charts and tables for fuel mix
- Some interest in brochures as the primary delivery system of disclosure information
- Type sizes that are smaller as more information is included

It is also evident that there are many core features of the labels that all or nearly all states adopted. The basic fuel mix categories appear nearly always. A majority of states address SO_2, NO_x and CO_2. Labels report information about a specific product, not about the aggregate sales of the retailer.[18]

Implementation of the New England Model Label: A Status Report

The National Council and the New England conference of Public Utility Commissioners organized a collaborative process in an effort to develop a standard electric product disclosure label. A model, seen in Figure 1, was the outcome. What happened next?

Two states, Maine and Massachusetts, adopted labels very similar to the model in many respects. Figures 2 and 3.

Connecticut has not resolved its standard label design.

New Hampshire, Rhode Island and Vermont have no label requirements (Vermont is considering a requirement based on new legislation, and the New Hampshire PUC is beginning to consider a disclosure requirement.)

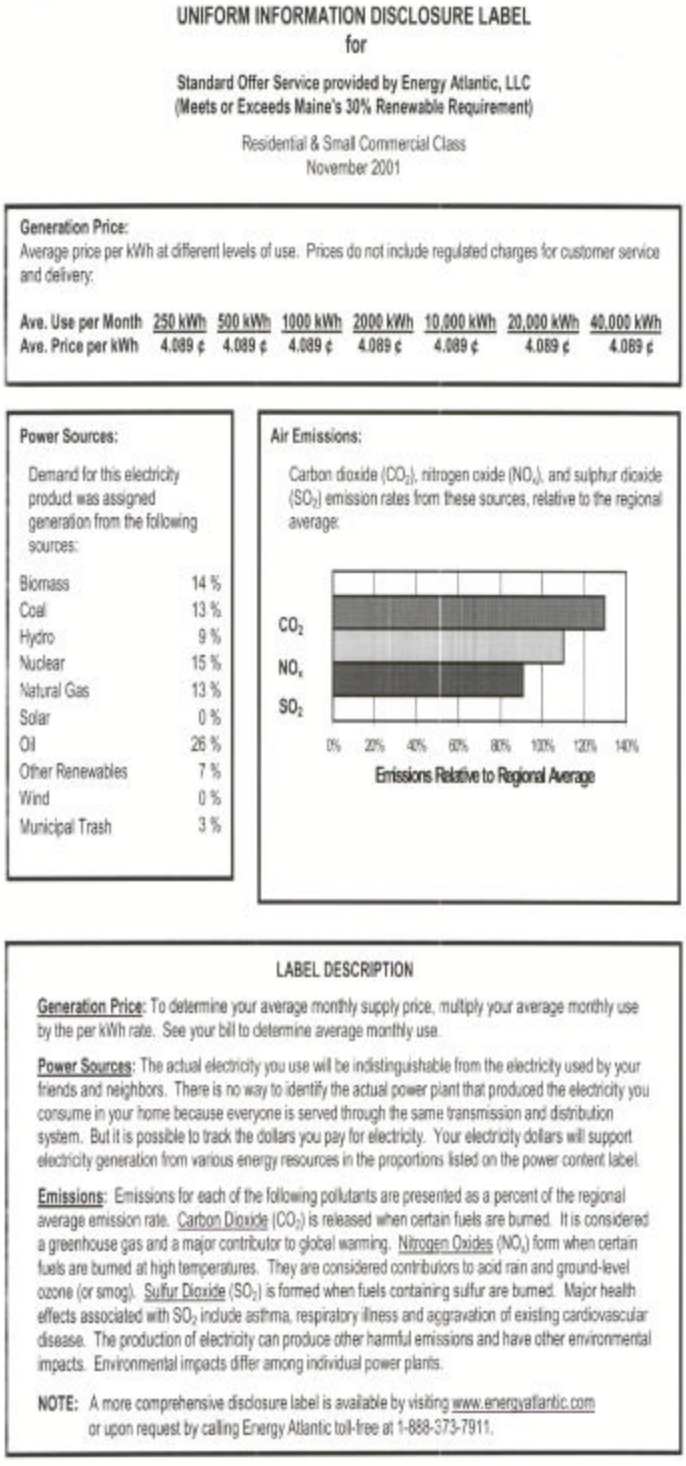
It is too early then, to evaluate whether the standardization effort in New England has borne fruit, but the opportunity remains.

Based on the trend of labels in place so far, standardization seems to be a low to moderate priority for many label designers responding to local constituencies and concerns. This begs the question raised by many commenters on this topic: should there be a national standard?

Marketers are interested in a common practice among states to reduce cost. Yet this motivation seems to have no more than a minor effect as labels are developed in the states.

All that can be concluded here is that the most likely result of the status quo is that this question will remain on the radar of state-federal concerns for some time to come.

[18] This was a strong preference in early National Council work.



UNIFORM INFORMATION DISCLOSURE LABEL
for

Standard Offer Service provided by Energy Atlantic, LLC
(Meets or Exceeds Maine's 30% Renewable Requirement)

Residential & Small Commercial Class
November 2001

Generation Price:
Average price per kWh at different levels of use. Prices do not include regulated charges for customer service and delivery:

Ave. Use per Month	250 kWh	500 kWh	1000 kWh	2000 kWh	10,000 kWh	20,000 kWh	40,000 kWh
Ave. Price per kWh	4.089 ¢	4.089 ¢	4.089 ¢	4.089 ¢	4.089 ¢	4.089 ¢	4.089 ¢

Power Sources:

Demand for this electricity product was assigned generation from the following sources:

Biomass	14 %
Coal	13 %
Hydro	9 %
Nuclear	15 %
Natural Gas	13 %
Solar	0 %
Oil	26 %
Other Renewables	7 %
Wind	0 %
Municipal Trash	3 %

Air Emissions:

Carbon dioxide (CO_2), nitrogen oxide (NO_x), and sulphur dioxide (SO_2) emission rates from these sources, relative to the regional average:

LABEL DESCRIPTION

Generation Price: To determine your average monthly supply price, multiply your average monthly use by the per kWh rate. See your bill to determine average monthly use.

Power Sources: The actual electricity you use will be indistinguishable from the electricity used by your friends and neighbors. There is no way to identify the actual power plant that produced the electricity you consume in your home because everyone is served through the same transmission and distribution system. But it is possible to track the dollars you pay for electricity. Your electricity dollars will support electricity generation from various energy resources in the proportions listed on the power content label.

Emissions: Emissions for each of the following pollutants are presented as a percent of the regional average emission rate. Carbon Dioxide (CO_2) is released when certain fuels are burned. It is considered a greenhouse gas and a major contributor to global warming. Nitrogen Oxides (NO_x) form when certain fuels are burned at high temperatures. They are considered contributors to acid rain and ground-level ozone (or smog). Sulfur Dioxide (SO_2) is formed when fuels containing sulfur are burned. Major health effects associated with SO_2 include asthma, respiratory illness and aggravation of existing cardiovascular disease. The production of electricity can produce other harmful emissions and have other environmental impacts. Environmental impacts differ among individual power plants.

NOTE: A more comprehensive disclosure label is available by visiting www.energyatlantic.com or upon request by calling Energy Atlantic toll-free at 1-888-373-7911.

Figure 3: A standard offer label from Maine

Congress Considers A National Standard for Electric Product Disclosure

As this report is being written in the third quarter of 2002, a committee of conference in the U.S. Congress is considering national energy legislation. The House version (H.R. 4) includes a section addressing information disclosure (Section 251). If this section remains intact and is included in a bill that becomes law, there would be implications for the electric industry and its regulators. The proposal before the conference committee would do several things.

The House language directs the U.S. Federal Trade Commission to issue rules requiring all sellers of electricity to provide to consumers a statement of some key information about the product. This direction does not distinguish between monopoly and competition states, or between investor-owned and consumer-owned companies.

The information required about the product would address price and all other charges, and other aspects of the service, such as interruptibility of energy or variability of price.

The FTC is directed to consider providing other information if it is feasible and it will assist consumers in making purchase decisions. The information would concern the product, the price of the price product, the share of energy generated by each fuel type, and the environmental emissions produced in generating the energy.

Finally, the language would direct the FTC to require that this information in "a clear and concise statement" be delivered to consumers "for each billing period," but allows the FTC to back off this standard if the information is not "reasonably ascertainable."

There would be several implications to this language should it to become law.

1. The Federal Trade Commission would be assigned a specific and significant role in electric utility regulation. To date, the FTC has been involved in electric regulation generally as a consequence of its basic consumer protection mission. While the FTC has been studying the electric product disclosure issue for some years, and so is intellectually prepared for these tasks, the law would add another formal regulator to the electric industry (the bill would also create an office of consumer advocacy in the U.S. Department of Justice). This could create confusion between FTC and the Federal Energy Regulatory Commission. It would be important for FTC and FERC to resolve their areas of oversight to provide clear expectations to states and companies. Staffing levels at FTC to complete these requirements may also be an issue.
2. All consumers would receive information about their electricity product in a standard form. The FTC would appear to have discretion, however, to authorize different formats depending on whether the consumer has a choice of electric product.
3. The value of fuel mix and environmental information, in addition to price and other commercial terms, would be validated.
4. Existing state disclosure practices would have to be aligned with a federal standard. The delicate question is whether FTC could create a standard that would accommodate the varying practices already adopted by different states, or if some state practices would fall outside the boundary of the FTC rules and have to change due to pre-emption. Some states may only have to modify the look of its information, but jurisdictional struggles and pride of authorship may still be sources of conflict.

5. A nationwide electric product disclosure standard may require a national accounting and database system for generation attributes like fuel sources and environmental effects. Or, developing Regional Transmission Organizations, being formed under FERC supervision, may be an appropriate agent to implement these systems on a regional basis. Such a system, were it to exist nationally, could improve the development and usefulness of tradable renewable energy credits. Complementary regional systems would accomplish the same result. The opportunity to capture scale economies from a national system or a network of regional systems may improve the feasibility of this approach.

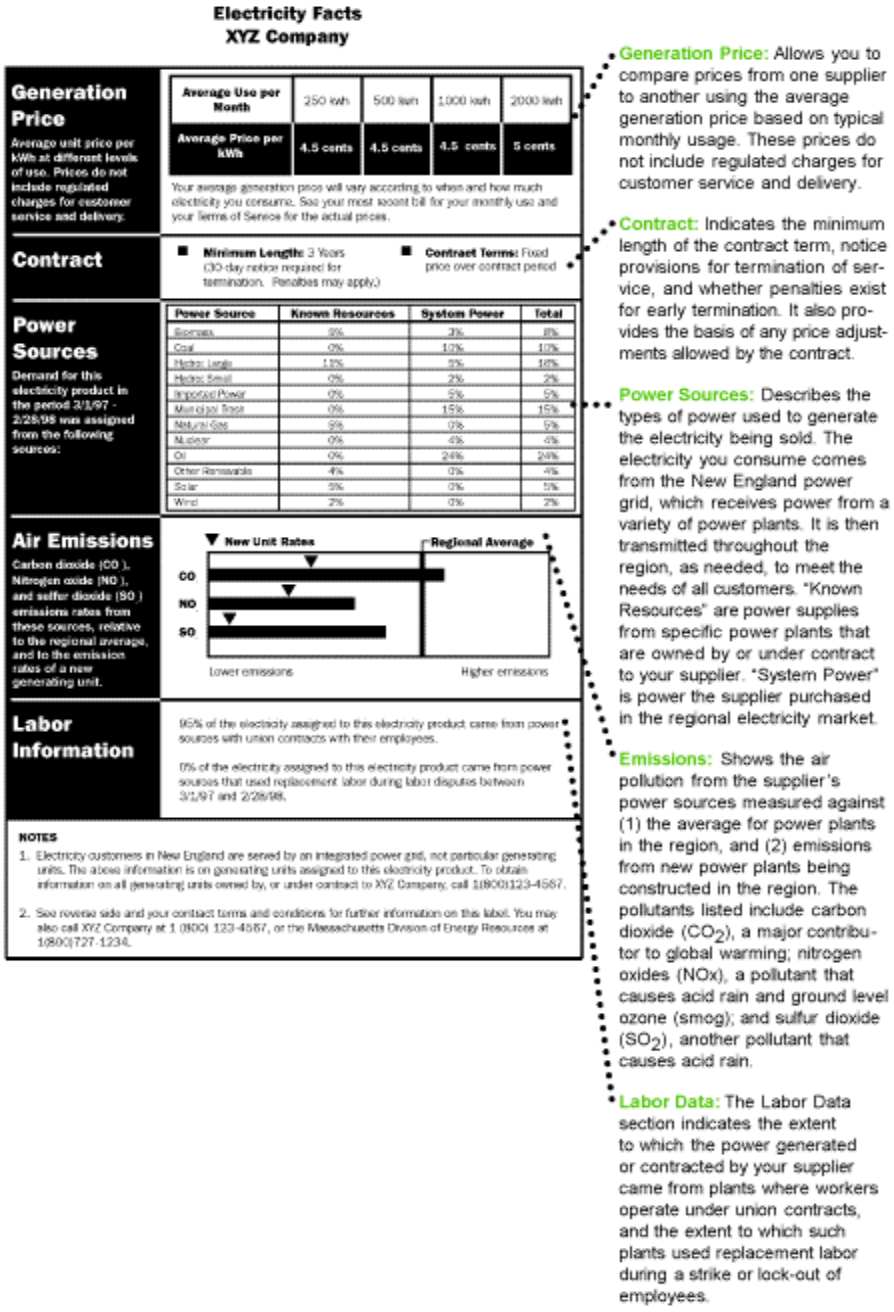


Figure 4: Massachusetts sample label

III. TAGGING OR TRACKING

A. BACKGROUND

In the early stages of developing policy on electric product disclosure, policymakers had to confront an important implementation issue: how should fuel and environmental attributes of an energy unit be accounted? There were two basic ideas.

In one, called "tracking," each transaction of energy would be tracked as the energy units moved from the generator through the wholesale market participants to the load serving entity. Relevant attributes from this energy would be recorded.

In the other idea, called "tagging," the fuel and environmental attributes would be separated from the energy, the attributes would be recorded on a tag or certificate, and traded in a market of load serving entities and middlemen, ultimately coming to rest in load serving entities' accounts, which would have either purchased them, or had them assigned.

Based on survey work sponsored by the National Council and organized by The Regulatory Assistance Project, many policymakers concluded that a system based on tagging would risk losing credibility with consumers.[19] Research indicated that consumers would not appreciate the notion of separating an energy unit from its fuel and environmental attributes, and would lose confidence in the information on labels based on this separation. Advocates of tagging argued that consumers would appreciate that the money they might choose to spend for electric products with greater amounts of renewable resources would be going to renewable generators to buy their tags. They also pointed out that this approach would not require knowledge of the trading history of the tag, just the starting and ending points of the tag.

The National Council work also indicated that a tracking-based system would be very accurate and would maintain the confidence of consumers, since there would be a "chain of custody" of the attractive and valuable attributes from generator to customers. Information systems already in use by transmission system operators would be able to track transactions. Critics were concerned that the process of tracking these transactions would actually be expensive, that consumers would, indeed, accept tags, and that tracking would not really add value in return for the cost of administering system.

A related choice is whether to maintain an accounting system for all generation, or only for a special subset of generation. In cases where only renewable portfolio requirements and green product choices exist, accounting for only the designated, and thus valuable, attributes is a reasonable choice. The focus in these cases is the qualifying generating sources.

To support a comprehensive disclosure requirement, or an emissions portfolio standard, and in anticipation of marketing strategies which may be unpredictable by policymakers, counting all attributes from all sources assures that all needed information will be available for whatever purposes government and regional markets may require.

The key in either case is to enable trading of energy attributes that are valuable somewhere in the energy marketplace. Access to trading should be easy. Success will lead to reduced cost

[19] Moskovitz 1998 pp 18-22.

throughout the value chain: reduced marketing cost by the generator, reduced acquisition cost by marketers and retailers, and lower retail prices.

B. IMPLEMENTATION

As states and regions are going about implementing information systems to support electric product disclosure, the debate concerning tagging and tracking continues. This is best demonstrated in the Northeast U.S.

In New England in 2000, utility regulators concluded that they were, in fact, comfortable with tagging.[20] A tag-based system for the six states, known as the Generation Information System, has been built around this design feature. The system was commissioned by NEPOOL, a membership organization of market participants including end users, and supported by ISO – New England. This system is well suited to support the tradable renewable credits important to well-functioning portfolio standards. Portfolio standards exist in three of the six New England states.[21] The cost of the system is expected to be $0.01 per MWh, or roughly 0.1% on retail rates. In gross terms, the system is expected to cost around $8 million over the first five years. The system provides all load serving entities in New England with a statement of the attributes they purchased or were assigned during the previous quarter, and the information from the statement goes into the label.

Meanwhile, the New York PSC and NY-ISO are collaborating on a system based on tracking transactions.[22] The PSC actually makes all the calculations and provides load serving entities with the label they are to use. The expected operating cost of the system is one full time equivalent staff person, split between the ISO and the PSC, though this is based on the current level of retail activity in New York. If a future emerges with more retail sellers with more complex retail strategies leading to more wholesale transactions, some increase in force supporting disclosure in New York may be necessary. The upper and lower bounds of costs to assemble the fuel mix and emissions data are probably captured by the New York and New England systems.

The PJM states are in the midst of an informal conversation among market and public interest stakeholders. Billed as the PJM Generation Attributes Tracking System Users Group, stakeholders are discussing the public policy and commercial priorities. There appear to be differing views about the ability of tagging to satisfy public policy concerns concerning misleading consumers. There are also concerns about the cost of doing anything. Those states that have some policy-driven requirement (portfolio or disclosure requirement) are willing to pay more than those states without such requirements. With inconsistent policy goals among the states, but some needs for a regional system, the discussions continue at an uncertain pace toward a result.[23]

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[20] This thinking followed the logic of the U.S. FTC, discussed in the next section, and adopted the view that tracking was likely to cost significantly more than tagging. This decision created a partnership between government and industry that led to the subsequent agreements on the Generation Information System.

[21] See http//:www.nepoolgis.com and http://www.iso-ne.org/generation_information_system

[22] An important parallel activity is the prospect that ISO-NE and NYISO have announced their intent to merge, raising the collateral question of which system will be adopted in that event.

[23] The stated goal of the users group is "to create a credible data system to assure information has value to customers, has currency for market participants, and can keep confidence of public and regulators." The author has had the opportunity to address the PJM GATS group, and to speak with individual stakeholders throughout the period of their efforts.

While both New England and the PJM states lack a consensus policy position on portfolio and disclosure, the New England states seem to accept the desirability of a regional program to support these policies, and perhaps the inevitability of the policies themselves, while the PJM states do not appear able to make that conclusion yet. Thus, New England is committed to the Generation Information System, while the topic remains unresolved in PJM.

The prevailing expectation of the energy market is that energy and attributes can be traded separately. If this market behavior is in the consumer's interest, as it appears to be, then electric product disclosure should support this practice.

C. REPORTING

While the decision to "tag" or "track" is very important to other elements of how regulators and market participants handle disclosure, it is not evident that consumers benefit from the details of this decision.

The NAAG guidelines do not express a preference between tagging and tracking. They do, however, recommend "that certificate-based claims be accompanied by a clear and prominent disclosure of the use of a tagging system to substantiate the claim."[24]

In its 2000 report on electric competition, FTC concludes "(b)oth systems succeed in matching the premiums that consumers are willing to pay for green power to the generators who invest in and produce that power. Thus, for the purposes relevant to consumers, there is no difference between the methods."[25]

D. GEOGRAPHY

FTC does qualify its opinion by observing "it may make a difference to consumers if the environmental benefits associated with the power they are buying will be enjoyed in a remote geographical area rather than in the region in which they live."[26]

This concern is relevant when disclosure requirements are based on attributes, at least in part, as is the case in many states. In New England, this concern is addressed through Generation Information System rules. In essence, if the power can get to New England physically, attributes from the same location can be imported also. By this logic, it is possible for attributes from PJM or even Michigan to enter the New England market.

Some experience with the New England system is necessary to determine if this potentially modest geographic displacement of environmental attributes creates deception. There seems to be very little support, however, for the purposes of the disclosure label for trading attributes coast to coast, or with other countries not interconnected with the U.S.[27]

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[24] NAAG 1999 pg 5
[25] FTC 2000 pg 47
[26] ibid
[27] There is interest, however, in international trade of attributes within transmission market distance. Ontario, Quebec, and the Maritimes did participate to varying degrees in the development of the New England system, for example.

IV. THE CHALLENGE OF SYSTEM POWER

A. SYSTEM POWER: BACKGROUND

System power has presented a challenge to implementers of disclosure rules. System power exists because there is not a direct contract match between all energy demand and all energy supply at any given time. A significant portion of power is generally produced under "bi-lateral" contracts – there is a specific buyer who generally intends to use the power for its retail obligation. From time to time, however, the system operator imposes order on the power system by directing some units on and others off to assure reliability in an economical way. This power is produced for the benefit of all. Yet it is not assigned to a load serving entity as it is produced. A system of characterizing and allocating the generation attributes of this power completes the picture intended by the label.[28]

Sometimes, power is needed from a neighboring system for economics or reliability.[29] Even less may be known about the source of this power. And at other times, system power is requested by neighboring systems and sent. Should this power be somehow removed from local system power calculation?

B. "SYSTEM ATTRIBUTES"

The complications get subtler if generation attributes, the fuel source and emissions profile, for example, are separated from the energy commodity, the MWh. In this event, the meaning of system power must evolve. System power can be thought of as a residual after bi-lateral contracts are accounted for. And these contracts may be for electricity or for attributes only.

The New England Generation Information System explicitly addresses this point. By providing a statement to all load serving entities suitable for meeting disclosure requirements and verifying portfolio requirements, the system has great value. The system is based entirely on attributes. After attributes with contracts are placed in the correct load serving entity accounts, any deficiency is assigned from the residual pool on a pro rata basis. If no attributes are purchased, then the fuel mix and emissions profile will reflect the residual pool 100%. A load serving entity can avoid this residual pool of "system attributes" by acquiring by contract 100% of the certificates it needs.[30]

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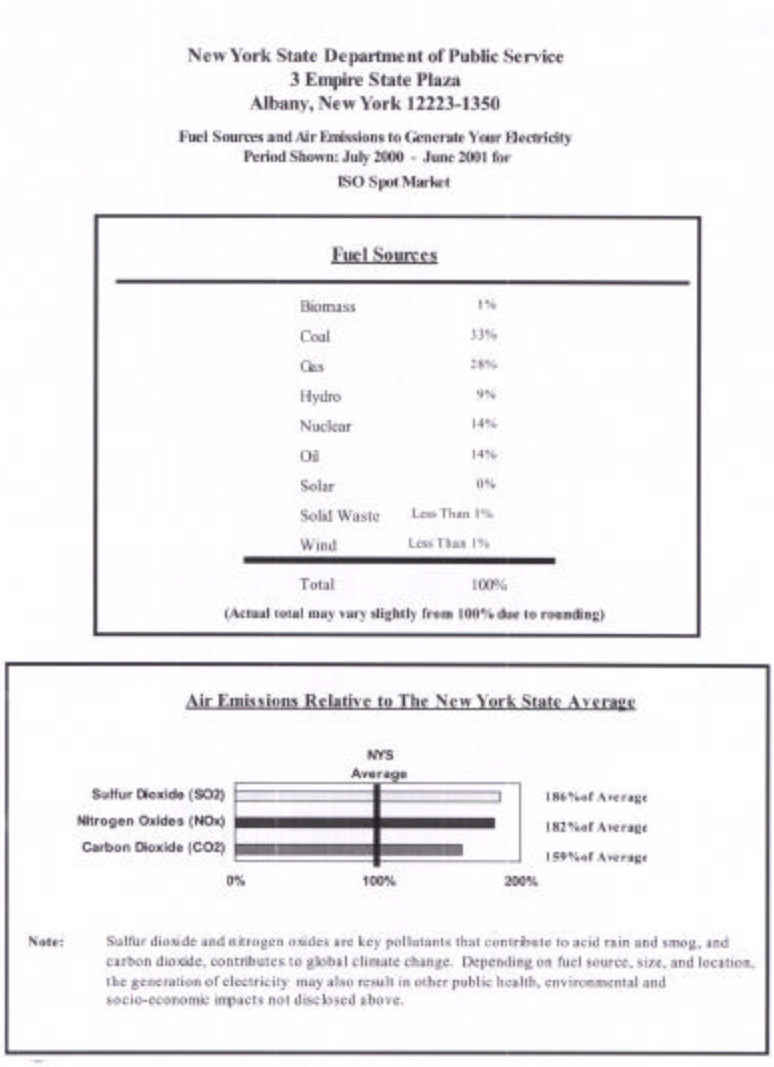
[28] Some states avoid the issue of how to report system power attributes by allowing the load serving entity to report system or imported power as its own category. This practice has the effect of diminishing the quality of the rest of the data on the label. The more complete approach is to integrate system and imported power into the specific fuel categories.

[29] Power needed for economics means that the market clearing price in a nearby market is less, and this power is transmitted, lowering the price in the home market. Power needed for reliability can mean that there is inadequate power available locally, so power from a remote market is brought in for the purpose of generation adequacy, or it can mean that transmission congestion will not allow low cost generation to serve a particular portion of the local market, so higher cost generation in the congested area must run instead.

[30] Some retailers have marketing plans and products involving guaranteeing 0% or 100% of some fuel type (100% wind, for example). It is critical to its ability to substantiate its claim that the retailer be able to avoid system power. System power is a mongrel, it has a little bit of everything, so it is valuable to these niche suppliers if they have a clear and effective way to avoid system power. Without this, such claims of 0% or 100% will be deceptive and such products, which consumers may want, could not be offered. This



New York State Department of Public Service
3 Empire State Plaza
Albany, New York 12223-1350

Fuel Sources and Air Emissions to Generate Your Electricity
Period Shown: July 2000 - June 2001 for
ISO Spot Market

Fuel Sources

Biomass	1%
Coal	33%
Gas	28%
Hydro	9%
Nuclear	14%
Oil	14%
Solar	0%
Solid Waste	Less Than 1%
Wind	Less Than 1%
Total	100%

(Actual total may vary slightly from 100% due to rounding)

Air Emissions Relative to The New York State Average

Note: Sulfur dioxide and nitrogen oxides are key pollutants that contribute to acid rain and smog, and carbon dioxide, contributes to global climate change. Depending on fuel source, size, and location, the generation of electricity may also result in other public health, environmental and socio-economic impacts not disclosed above.

Figure 5 presents the New York label reporting the attributes of system power in New York.

Systems such in New York and California that are essentially a hybrid, tracking contracts with an overlay of tradable credits, address the task differently. After tracking and accounting for all contract energy sales, New York adjusts the system power results for attribute sales, called "conversion transactions." The result is the same, however: System power becomes a residual of attributes that no one wants.

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example accents the importance of protocols to allow regional trading of attributes within a reasonable geographic scope: Wyoming wind attributes counting in Oregon, or Pennsylvania wind attributes counting in Connecticut, for example, without allowing such inappropriate practices as selling attributes twice. Because the attribute trading period in New England extends for some months past the time when the energy is used, retailers in New England with specific requirements can acquire all the tags needed to meet actual energy sales for any product.

Where bordering states or regions treat system power calculations differently, some coordination is required to promote unfettered energy and attribute trading across state lines.[31]

Retailers who care a great deal about their product mix will tend to make contracts for attributes they require.

As a final clarification, it is worth a reminder that many disclosure labels report the overall system average fuel mix and environmental factors in comparison with the actual data for a specific product. For this purpose, the system average data must reflect all the energy produced in the market area, and not the residual.

[31] While national energy policy seems to favor regional energy markets, there is resistance to the idea in some low cost states. It is not clear that markets for attributes of generation are similarly controversial. The discussion later in this paper on a dilemma facing monopoly states bears on this point.

V. OTHER DETAILS ABOUT DISCLOSURE

States have confronted a myriad of policy issues in the development of disclosure rules. Among them are the following:

A. HISTORICAL OR PROSPECTIVE INFORMATION

Some states require that disclosure information be historical, a previous year, or a previous 12 month period. In the latter case, the load serving entity is responsible for updating the information every 3 or 6 months during the year. If E-GRID is the source of emissions information, data may not be from the immediately preceding year due to delays in updating.

When a product is first introduced, of course, there is no historical data. In this event, data must be projected until a sufficient historical track record is available. Acknowledging the seasonality of most energy markets, at least a year of data is required. A significant amount of space in state rules on disclosure is devoted to how data should be reported, especially for new products, and these rules vary from state to state.

A minority of states requires prospective information for all products. This represents a commitment to the customer of what *will be* delivered, as contrasted with a recent sample of what *was* delivered. The load serving entity has the challenge of forecasting the relevant fuel mix and environmental data. During the year, the LSE updates the information with actual data. This approach may tend to favor load serving entities that emphasize bi-lateral contracts for energy and attributes. In this case, the retailer has high confidence early on what its fuel mix and environmental profile will be at the end of the year due to the advance commitment.

A related topic is the nature of the information supporting claims-based disclosure. This involves situations where there is no general disclosure requirement, but if a claim is being made about the product, disclosure is mandatory. In these cases, the claim usually based on the prospect that delivered energy will meet certain criteria over the following period. If there is no system-wide database, states worry that the information supporting the claim may be unverifiable unless it is based on clear bi-lateral contracts. Some suggest that any supplier making a claim should be required to deliver production data from the energy sources providing the power. Presently, there is no standard for verifying claims that clearly meets FTC or NAAG guidelines.

B. LABELS REVEAL LOCAL CONCERNS

Standards and models do not imply replication. Local concerns are important. Nowhere is this more evident than in Massachusetts, part of the New England model disclosure label project. Because labeling requirements often originate with the policy concerns of the legislature, it is not surprising that strong local concerns find their way onto the label.

When the Massachusetts restructuring legislation passed, it was important to elected officials that a statement addressing the status of labor relations at existing generating stations be included on the label. Industry restructuring had caused some uneasiness about the attitudes on new market-driven generation owners concerning unions and employment levels. See figure 3.

In other states, local concerns are demonstrated by the way fuel categories are selected and worded, perhaps emphasizing discrete renewable categories, or what environmental effects are listed, as in Michigan with its concerns for nuclear waste.

This kind of concern can and should be accommodated, but should be weighed against the value of reinforcing the expectation among consumers that electric product disclosure labels will present basic useful information is a reliable, accessible format, similar to present expectations concerning food.

C. PLACEMENT

Electric consumers may have use for disclosure labels at several distinct times.

- Advertising
- Direct marketing via phone, mail, or Internet
- Point of sale
- Regular notice to subscribers
- On request

There is a range of practices among the states reflecting these trade-offs in different ways. Some customer contacts do not lend themselves to conveying a lot of information (instructions on how to get more information are appropriate in these instances), while in others thorough information is appropriate.

There appears to be reluctance in some states to getting too prescriptive on disclosure requirements in advertising and marketing materials, beyond assuring that prospective consumers are told how to learn more. This attitude changes regarding the moment a customer is making a decision to buy. Most states want customers to know what they can expect before they commit, especially in regard to pricing and commercial terms. Some states are concerned about presuming to provide more information than customers want, and so make some or all of this information available on request from the customer. See Figure 6, a label from Arizona.

Current editions of labels should be available in a prominent way on the Internet site of the load serving entity, if such a site exists. Access to all currently valid labels in a state from the web site of the PUC, public advocate and energy office would extend easy access to that information.

When disclosure is evaluated for improvements, placement is an issue that should be reassessed to learn from states and customers what practices have been most effective at providing customers the information they need and want at the most appropriate and effective times.

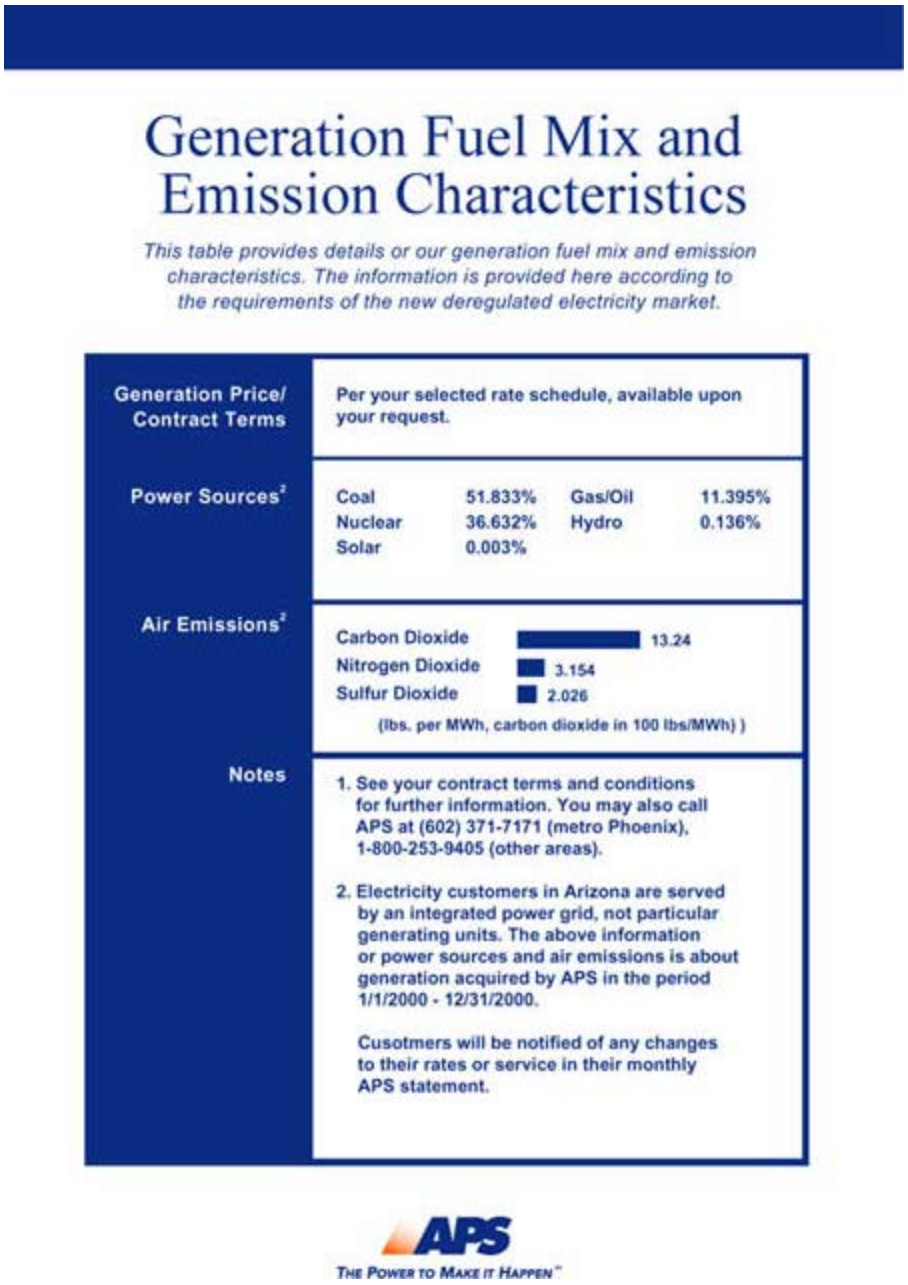

Figure 6: An Arizona Label. Pricing Information Is Sent Periodically. Fuel Mix and Environmental Information Is only Available on Request. It is available on the Internet.

D. PRESENTATION FREQUENCY AND FORM

Most states choose either semi-annual or quarterly presentations of the label. Neither way is particularly more valuable to consumers. Presentation at least twice a year, with updates at least as often, does reveal seasonal change in the retailer's policies, and provides useful information to customers.

Monthly presentation has been suggested, but not implemented for several reasons. Consumers do not seem to need the information in every bill. Also, unless the information is updated monthly, there would be no change in the label two out of three times it is presented. And while it may be feasible to update the information monthly, this practice would add cost to organize this information. Plus, monthly change information would be too fine-grained, recording short term disruptions in a utility fuel portfolio strategy, for example and obscuring the long term strategy itself.[32]

There are also some differing methods on the form of presentation. The dominant issue is how to maximize the chance that the customer will read label. There have been suggestions to place the label on the envelope, and more frequent suggestions to place the label on the bill itself. The prevailing approach, however, is to place it in a stand alone insert with the bill, as other notices from the company would be. An insert allows for adequate space to present information in a clear way. Another option is to include the disclosure in an insert that has other customer information, perhaps as part of a regular newsletter or letter to customers. As with other disclosure implementation methods, this approach should be evaluated for effectiveness in the near future.

Presenting the label in an easy to read format was a suggestion from the National Council model label project. Texas has taken that suggestion to heart, as seen in Figure 7.

[32] Some suggest that consumers will ignore monthly presentation. To the degree that conventional wisdom is based on fact, it is likely that maintaining a "special" status for the label will increase the attention it gets.

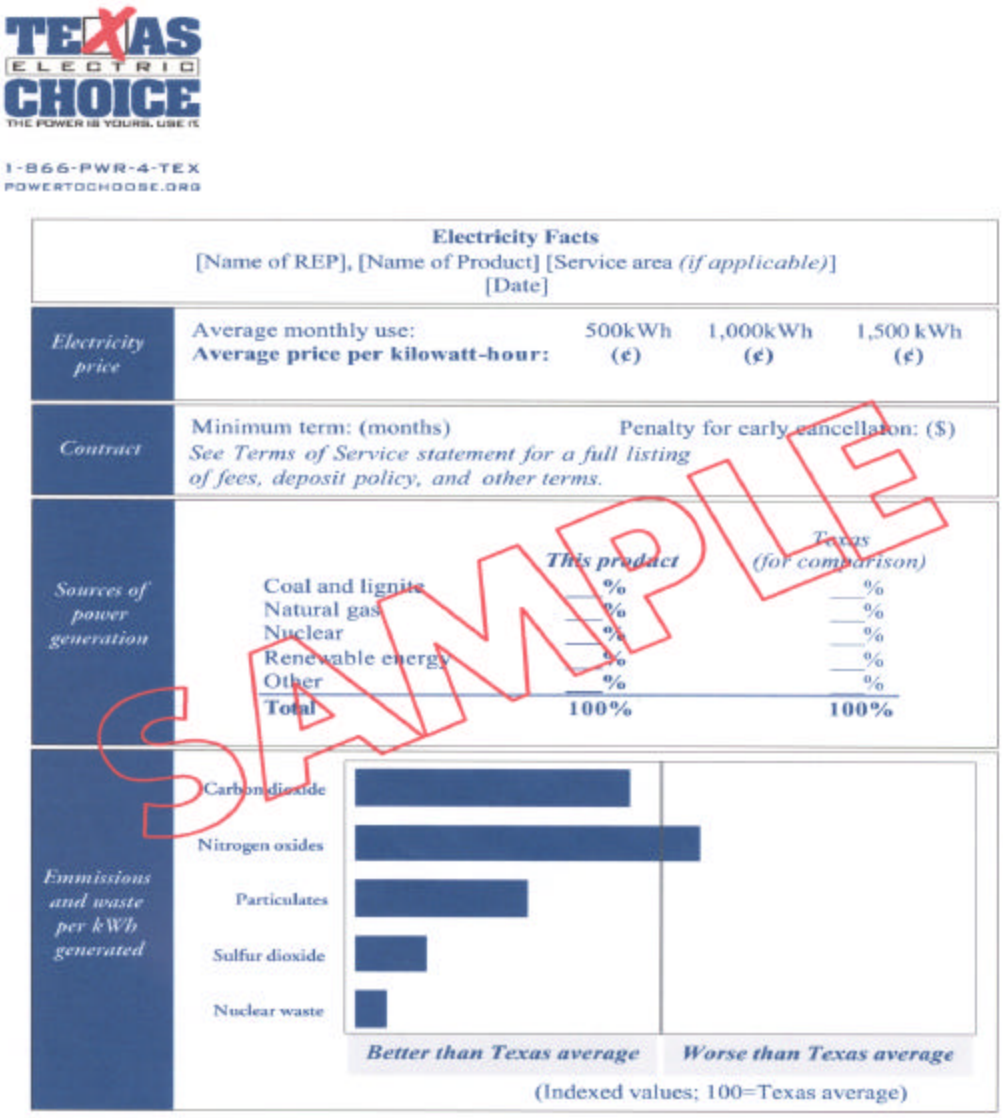

Figure 7: A Sample Texas Label

E. PUSHING THE LIMITS OF DISCLOSURE

In most cases the label and the information systems that support it represent compromises. The challenge for officials deciding on what the label should contain is to settle on the best balance of a series of factors. Factors at play are

- Public policy interests
- Cost
- Space
- Expected attention span of the reader (a range)
- Commercial Concerns of various kinds
- Compatibility with neighboring states

The decision of what to put on the label is important. In reaching the consumer, there is a trade-off between brevity and insight. Too brief misses an opportunity to inform. Too much information can create a fog unless it is presented with great skill.

Information that seems to make the grade only occasionally include:

- emissions of Particulates and Mercury
- spent nuclear fuel and low level nuclear waste
- explanations of fuel and emissions impacts
- fuel mix comparisons with a state or regional average

These elements can be added to disclosure labels, including the NECPUC model. Label designers must take care, however, to maintain clear readability to maximize information retained by customers.

The California label emphasizes brevity, and includes only fuel mix information. See Figure 8.

POWER CONTENT LABEL

ENERGY RESOURCES	PRODUCT NAME* (projected)	2000 CA POWER MIX** (for comparison)
Eligible Renewable	56%	12%
-Biomass & waste	-	2%
-Geothermal	-	5%
-Small hydroelectric	-	3%
-Solar	-	<1%
-Wind	-	2%
Coal	8%	16%
Large Hydroelectric	9%	19%
Natural Gas	18%	35%
Nuclear	9%	17%
Other	<1%	1%
TOTAL	100%	100%

* 50% of (Product Name) is specifically purchased from individual suppliers.

** Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.

For specific information about this electricity product, contact (Company Name). For general information about the Power Content Label, contact the California Energy Commission at 1-800-555-7794 or www.energy.ca.gov/consumer

Figure 8: A California label

VI. EFFECT ON BUYING DECISIONS

One of the key goals for electric product disclosure labels is that they guide consumers to make selections among competitive offerings that most match their priorities for price, fuel supply and environmental qualities, while providing useful consumer protection information.

It is not possible to say at this time what effect electric product disclosure labels are having on consumer choice and energy markets. In many states with choice, there are few competitors to compare. More practically, there have been so many difficult policy matters to address that there has been no resources devoted to evaluating the performance of the labels.

It is evident from state rules and orders concerning electric product disclosure labels that there is little attention to studying this matter at present. Many very important market formation issues are more than filling the time of regulatory officials. For labels to achieve their intended purpose, it will be necessary to check back with consumers and market participants to determine what the effects have been, and to consider what changes might be necessary to improve the effectiveness of the labels.

At this time, it would be fair to call labels an investment in the electricity market that will contribute to the supply-demand feedback so essential to efficient commerce. This happens with customers increasing their awareness about what they are buying, and with suppliers sensitive about the way they present themselves to their customers. One anecdote is suggestive. In New York, labels were sent out by load serving entities for the first time in early 2002. Examining the labels of a range of load serving entities, a clear pattern emerges.

The New York Power Authority, a large state-owned entity that provides wholesale power to dozens of municipal electric departments and also serves a few large customers at retail, has a generation portfolio that is heavily weighted to hydroelectric and nuclear sources. NYPA generation creates a favorable effect on the emissions profile of the state average, to which all suppliers are compared. New York Municipal electric department labels show emissions rates at less than 40% of the state average.

Suppliers with no access to NYPA power and which rely more on coal, gas and oil, however, are left in the difficult position of trying to explain to their customers why their emissions are so much greater than the state average. See Figure 5, the New York label reporting system power content. It will be interesting to see if any suppliers address this situation by accelerating commitments with low emission sources as a way to projecting a more environmentally clean image to customers. It is this sort of market transforming effect that advocates of labels anticipate.

VII. A NEW TREND: DISCLOSURE IN MONOPOLY STATES

Colorado does not allow retail electric competition. Neither does Florida. Yet Colorado requires its two largest electric companies to disclose their fuel mix (see Figure 9) and Florida requires disclosure by its companies. Why? And does this signal a trend?

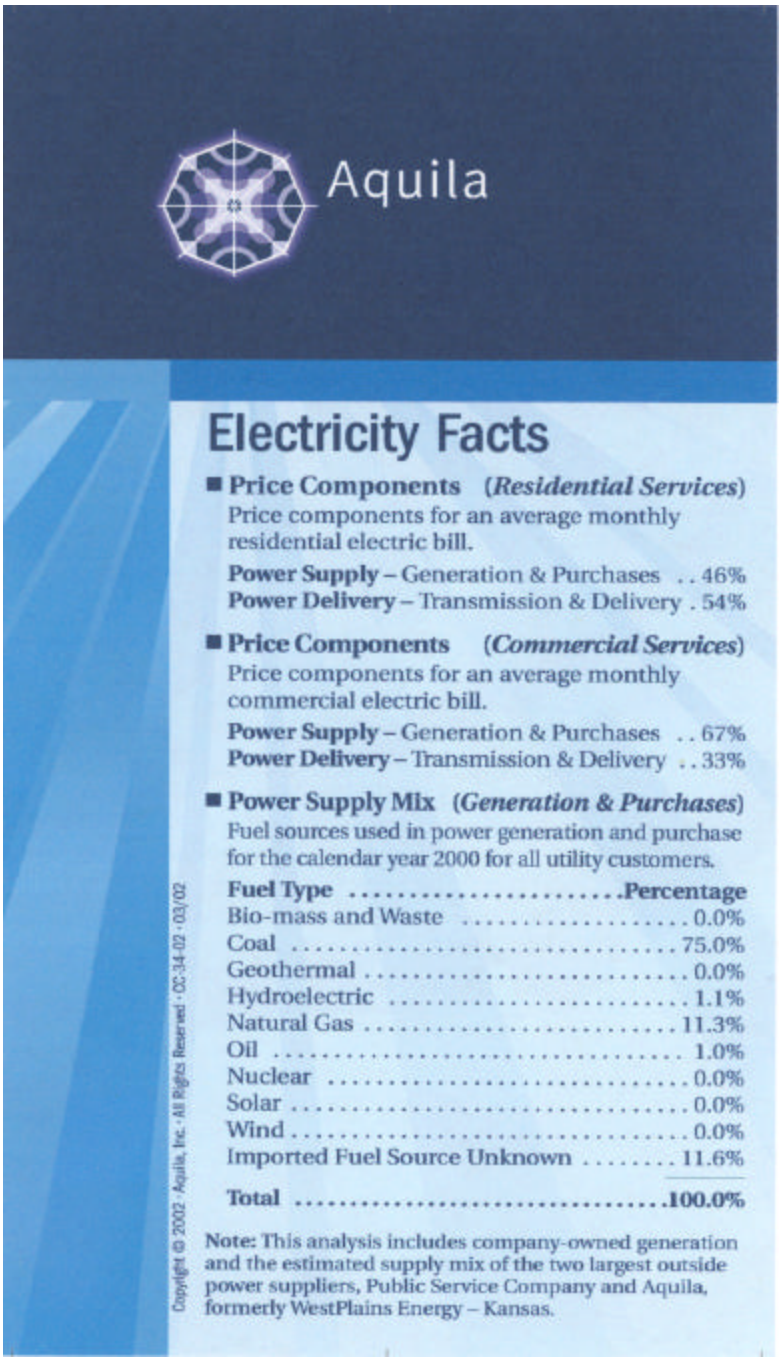

Figure 9: A label in Colorado

A. WHY DISCLOSURE IN MONOPOLY STATES?

There are two basic reasons why a state without retail electric competition would require or encourage electric product disclosure. First, there is a commitment to offer product options within the monopoly framework, options which may feature renewable power, or which may have a demand response element, for example. Labels will demonstrate to consumers the differences among the options they have from their utility. Second, there is a commitment to provide information to consumers for them to use in whatever way they want to. Consumers may want to advocate for change, or at least ask questions based on the facts. Surveys of customers have indicated that consumers are generally unclear about where the power that serves them comes from.

As to whether more states will join Colorado and Florida, it appears more will. Minnesota is engaged in a process in 2001-02 to develop a disclosure brochure. Accounts from Minnesota officials indicate that both reasons cited above are at work. And in Vermont, the legislature recently passed a bill that authorizes state regulators to require utilities to provide disclosure labels consistent with other New England states. Washington passed a similar bill in 2000. None of these states are showing movement toward retail competition.

B. A DEVELOPING DILEMMA IN MONOPOLY STATES

For decades, states have been developing energy plans. These plans report the generation mix serving the citizens of their states. Restructuring of the electric industry has caused a rethinking of the purpose of this exercise.

A state going to retail electric competition may no longer be able to calculate the energy supply serving a state because competitors may declare this information to be proprietary, or because competitors may frequently shift generation supply sources for business reasons making a snapshot meaningless.

Regional attribute markets are developing, helping companies meet and substantiate portfolio standard and claim based requirements. When focused on renewable energy, this is often called a market for tradable renewable energy credits.

A Regional Effort Underway in the West

A project to bring a common disclosure protocol into being is underway in the West. Led by Washington, Oregon, and California, the project represents recognition that the electric markets in the western states are inter-related, that significant power flows among the states are common, that there is a regional market for renewable power, and that disclosure requirements mean these factors must be addressed for the disclosure process to produce quality information.

The project is receiving some federal support, and other states, though not all western states, are participating. Any positive results will probably not emerge until 2003.

A state that retains monopoly has a dilemma in this environment. The state plan may report that there is a meaningful portion of energy from renewable or clean burning resources, and this may

be consistent with and important to state policy.[33] With the advent of attribute markets serving neighboring choice states, utilities controlling these clean resources, but with no requirements regarding portfolios or disclosure will be tempted to sell the attributes to load serving entities with such requirements but without sufficient local resources to meet the requirements (presumably to use the funds to reduce rates).

If it is so that public policy in one state values the attributes more than another, then economic efficiency suggests that this transaction should occur.

The question here, however, is: Has the monopoly state addressed whether it wishes to cash in on its clean energy attributes? It is consistent with a restructured electric industry and a competitive wholesale market to imagine a state declaring itself to be the renewable source for the surrounding region, "manufacturing" attributes beyond local "needs" for sale elsewhere. Without any requirements or statutory expectations, there are no local "needs" for clean energy attributes.

By avoiding the retail electric competition debate, however, most states have not considered the implication on the state energy mix of selling clean energy attributes. If, after reflection, the original purpose of acquiring and supporting the clean resources is maintained, new guidance to the utilities about retaining some or all valuable attributes is necessary. At present, states that have not considered this are vulnerable to a breakdown in public policy and a poor outcome.

It would wrong and misleading for out-of-state sale of attributes to occur *and* for the state to continue to claim its prior record on clean energy supplies in reliance on those same attributes.

For some perspective on this question, it is useful to turn to the NAAG Guidelines. A central tenet of the NAAG Guidelines is that the same attribute should not be sold or credited twice. If the monopoly regulated utility sells its clean energy attributes, the attributes are available for credit to the buyer's account, and should be removed from the seller's. This means that when the state goes back to its planning, it should report its energy mix with these sales removed, replaced by residual attributes from the appropriate market area or by new contracted resources. If the level of renewable energy, for example, is a source of pride for a state, this opportunity may cause a difficult political choice.

The dilemma, then, is whether to take the money, or keep the credit. Without a public policy discussion, it is difficult for utilities to know what the right answer should be – and uncertainty always makes for a difficult regulatory situation. What does seem evident is that most states will be drawn into the discussion.

[33] Integrated resource planning or other state policies on resource acquisition may have gotten the state to that point.

VIII. INFORMATION SOURCES FOR DISCLOSURE

A. INFORMATION SOURCES

Vital to the success of the label is the information that backs it up. The system should have the capacity to pass the "front page" test if challenged by a disgruntled market participant or inquisitive customer advocate. The following are ways states are responding to this challenge:

- Multiple states working together to develop a common database and registry for tags[34]
- States, either individually or as a group, collaborating with utilities and/or system operator to track transactions and to measure system averages[35]
- Use of E-GRID (Emissions and Generation Resource Integrated Database), produced by the U.S. EPA, for the purpose of gathering emissions data from power stations[36]
- Use of continuous emissions monitoring data from power stations, which are collected by state air pollution control offices for their own purposes and for their Clean Air Act enforcement responsibilities[37]
- Use of historical average rates of accumulation of nuclear waste
- Utilities maintaining responsibility for developing the necessary information, subject to check by state regulators.
- Surveys of small scale generators not generally connected to the grid as generators, but seen as negative load, to assemble the necessary information for disclosure and other purposes[38]

Vital elements that seem to influence which of these paths are followed include:

- The status of Clean Air Act attainment in a state
- The nature of government requirements for portfolio standards
- The relationship between government and industry

Non-attainment status under the Clean Air leads to great interest on the part of air regulators to parlay the disclosure system into an instrument toward achieving attainment status. The presence of pounds of emissions per MWh data on the label is positive if it becomes a popular objective to reduce that number.[39]

The presence of a portfolio requirement and its verification requirements moves the debate from whether there needs to be an information system to what kind, who will be responsible, how much will it cost. This is because some attributes in a portfolio system take on a currency, a

[34] New England has clearly done this.
[35] New York has done this, and the three Pacific Coast states are working in this direction.
[36] http://www.epa.gov/airmarkets/E-GRID/ CHECK THIS!
[37] New England's preference, others rely on E-GRID.
[38] Many customer-owned and very small generators supply power to the grid, but do not have real time interaction with system operators or the "revenue quality" meters that ease the accounting challenges for larger units. Rather than considering them "supply," planners consider them "negative load" since they serve to reduce the demand on distribution sub-stations. Some states want to count the attributes of these sources, especially since many of these sources use renewable fuels and can be produced by highly efficient combined heat and power systems on the customers' premises. Accounting for the attributes of these sources is done in various ways, including uploading data daily or weekly, or with old-fashioned phone or written communications of metering data.
[39] Some states do not use the numbers in their labels, preferring a less busy presentation of a bar chart comparison with regional averages.

value. A "monetary system" that assures credibility and confidence in the markets, and enables the policing of fraudulent activities becomes essential. [40]

A strong relationship between government and industry can lead to cooperation in developing the necessary information system. This is the case in New York, where co-operation between the Public Service Commission and the ISO led to an efficient process based on current rates of transactions of developing the disclosure system and the information that backs it up. The state even creates the labels that the utilities will distribute though it relies on the industry to put the labels in the hands of consumers.

The opportunity to dovetail portfolio and disclosure requirements has been seized by Massachusetts, Connecticut and Maine. With the support of the other three New England states, the ISO and the industry have developed an accounting system that will assign a certificate to every MWh produced or sold in New England and oversee the transfer of those certificates to load serving entities.[41] This is known as the Generation Information System (GIS).[42] While not identifying the originating generator,[43] each certificate contains information about fuel type, environmental criteria, and all other information relevant to disclosure or portfolio requirements in New England. A market manager has been hired to run the attribute market in New England.[44]

To utilize the most up to date information on emissions, New England air regulators will feed into the database information from continuous emission monitors (CEM) that are typical for generators over a certain size. These data are required by EPA regulations, but state air regulators administer the programs, so the information is readily available in states. CEM data is generated quarterly and can be quickly updated in the GIS database.[45]

The more precise the data source is, the less approximations are required. Approximations tend toward a conservative interpretation by regulators of emissions data. This means regulators will assume more emissions than may actually be happening. So the advantage of CEM data is that truly cleaner facilities will be more likely to be credited in a disclosure system.[46]

While New England has invested in an information system for its needs, other states and regions appear less inclined to take this step.

New York has taken a more moderate step of integrating transaction information with E-GRID to produce the information it needs.[47]

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[40] In addition to transaction information, data challenges include accounting for losses.
[41] http://www.nepoolgis.com
[42] An unsolvable problem for the developers of this system was to come up with a name that would not be confused with Geographic Information System.
[43] Generators preferred that the certificates not reveal the source out of concern that the certificate market would reveal too much about a generator's operating strategy, a competitively sensitive subject.
[44] Some data issues remain. These include how to treat generators that use more than one fuel (some use gas in the summer and oil in the winter), including co-firing, how to most appropriately factor in generation from customer-owned, interconnected combined heat and power units, and how to account for attributes from outside New England. Personal Communication, Nancy Seidman May 16, 2002.
[45] Continuous Emissions Monitoring includes good data for NO_x, SO_2, CO_2, and particulates. Mercury data is not consistently available. If mercury becomes an important element for environmental disclosure, significant improvements in information sources will be required.
[46] Nancy Seidman, Massachusetts Department of Environmental Protection, Personal Communication, May 2002.
[47] K. Bala, New York Public Service Commission, Personal Communication April 2002.

Other states with less of a tie to or less leverage with the utility industry and the system operator are forced to improvise on assembling the transaction information, and they rely on E-GRID for emissions information. Washington, Oregon and California are collaborating on an effort to pool information for the purposes of fuel mix disclosure, and appear to be heading this direction.[48]

In all these cases, there is an information gap for smaller units (less than five MW) that may escape notice of the system operators and/or E-GRID. Outreach to these units is required if their attributes are to count and have value. This can be expensive, and some states and regions may determine that the small percentage represented by these units is unimportant for the purposes of disclosure. New England, which is also driven by portfolio requirements, is gathering this information through a web site developed by the GIS administrator to automate this process.[49]

Proprietary Information and Disclosure

The National Council anticipated that proprietary information concerns might arise in connection with electric product disclosure policy. The Council commissioned Scott Hempling to investigate. The National Council publication, Disclosure of Fuel Mix and Emissions by Retail Electric Service Providers: Issues of Confidentiality vs. Public Right to Know, July 1997, was the result.

Summarizing the complex arguments of this work would not do them justice. It is evident, however, that evaluating proprietary claims represent a balance of commercial and consumer interests. The history of information availability does suggest an expectation that this information will continue to be available, especially if there is a compelling public interest.

Hempling reminds readers that retail suppliers are certified or registered with the state. A condition of certification or registration may be that product disclosures are required.

A note of caution is appropriate for those states that plan to rely on the market participants to self-report disclosure data or portfolio requirement data, subject to review by the government. As marketing and trading in electricity becomes more sophisticated, these policies will become increasingly important to the business plans of some market participants. The possibility of disputes among market participants, asserting false or misleading claims driven by efforts to reduce costs of compliance cannot be dismissed. A neutral system administered by government, independent system operator or other non-market participant can insulate the system from the appearance of abuse, and fairly address the concerns any individual parties may have.

[48] Other western states are involved in these discussions, keeping their option to participate open. States most interested appear to be Nevada and Arizona. Montana competition legislation directs the state to have disclosure, and this system could make implementation there easier. Elizabeth Klumpp, Washington Office of Economic Development, Personal Communication, June 2002.

[49] Some policymakers in New England are interested in distributed generation, especially DG fueled by renewable fuels. They want to be sure that customer-owned systems can count in state portfolio requirements.

B. E-GRID

E-GRID emerges as a very important support for states and regions developing disclosure information systems. E-GRID is a national database of power generators and contains the emissions rates that most states want to use, including CO_2, NO_x, SO_2, and Mercury. It overcomes the barrier of creating such a database from scratch, and it is reliable information.

One concern that some have expressed about E-GRID is the timeliness of refreshed data. As of the second quarter of 2002, E-GRID presents 1998 data. EPA reports that 2000 data will be available later in 2002.[50] States that use E-GRID find they must be on the lookout for changes in emissions rates due to plant upgrades, outages, or other discontinuities. It is important to reflect recent information so that generators that receive investment to reduce emissions can receive recognition of that improvement on the label. Likewise, sudden poor performers should not be allowed phantom benefits.

EPA relies on the U.S. Department of Energy's Energy Information Administration (EIA) for generation data needed to develop emission rates. Continuing high quality information from the generation industry through EIA is essential for the continuing effectiveness of E-GRID.

Portfolio Standards

The portfolio standard is a cousin of electric product disclosure. Both are intended to influence the generation market and consumers, and both tend to highlight clean resources. One state, Massachusetts, has adopted an emissions portfolio standard. All retail sellers in Massachusetts subject to the requirement must sell products that do not exceed average levels of pounds per MWh of three emissions. These levels were set by the legislature. Several more states in addition to Massachusetts have adopted renewable portfolio standards. Retail sellers in these states must sell a product that has a minimum content of qualifying renewable energy.

What qualifies as renewable energy is not consistent among states. Local concerns about hydroelectric energy, trash-to-steam facilities, and local interests in fuel cells and particular new renewable technologies create significant variability.

There is movement in Congress for a national renewable portfolio standard. If this requirement is adopted, interest in the question of a national registry for qualifying credits will increase. With the development of this level of information, the issue of providing a label so customers can see how the portfolio requirement is met will also emerge.

[50] Rick Morgan, U.S. EPA, Personal Communication, May 2002.

In 2001, EIA issued a change in its data confidentiality policy, but did not make changes that would disable the effectiveness of E-GRID to support disclosure. EIA did consider concerns expressed by states, the U.S. EPA and other data users. This episode does indicate the inter-relationship among state and federal agencies interested in energy, and the desirability of assuring that information necessary to furthering public policy is available in a useful way.

In any event, the sources of information for electric product disclosure labels must be credible, consistent, and auditable, or else whatever is done with that information will be suspect.

IX. CLAIMS AND SUBSTANTIATION

One reason why disclosure is attractive to policymakers is that it can serve to demonstrate to consumers and regulators that the claims of a retail electric seller are accurate and not misleading. As consumers are asked to reveal their preferences and choose among service options, those with labels to examine will be able to rely on the information there to reinforce the claims of, for example 50% renewable, or 0% nuclear.

As pointed out already, however, the confidence of the consumer is directly related to the validity of the information that becomes the label. How do we check?

Many states address this question by having the retailer submit all information supporting the label to regulators. New York goes further and actually gathers the information and assembles the label data for the retailers. In New England, an objective administrator delivers information to the load serving entity – where the responsibility to prepare the label resides. Most states choose to allow the information to reside with the retailer, subject to inspection. The prospects that this information could be examined, and that inconsistencies could lead to onerous consequences for the retailer are important to assuring that the data is rigorously handled.

Another way to address claims is to have another organization help. For example, Green-e is a consortium of groups and people that set standards for a significant commitment to renewable energy in a given market. Green-e is a positive motivator, a "seal of approval" on which consumers with affinity for the Green-e goals can rely.

From the Green-e web site: Green-e Electricity Provider Requirements

Electricity providers selling Green-e certified electricity are required to abide by the Green-e Code of Conduct, which governs participation in the Green-e Program. Specifically, electricity providers must: make full disclosure of the percentage and type of renewable resources in their electricity product; present product pricing and contract terms in a standardized format, for easy comparison; submit their marketing materials for review twice a year so Green-e can ensure they are not making false or misleading claims; and undergo an annual independent process audit to verify product content claims and ensure enough renewable power has been purchased to meet customer demand.

Because the prevailing amount of renewable energy varies from place to place in the U.S., Green-e does not use an absolute standard everywhere, so it judges what level of renewable commitment is sufficient to earn this certification.

One element of Green-e certification that is common everywhere is that disclosure is required so consumers can continue to see that marketing promises are kept. While Green-e is no substitute for regulations on substantiation, it is a useful supplement and reinforcement.

X. CONCLUSIONS AND POLICY RECOMMENDATIONS

The core concerns in response to the use of competitive markets in electricity sales discussed in prior National Council reports in the Information Disclosure Series remain valid today. Electric product disclosure labels have value for consumers.

Markets have been slower to develop than expected, however, and challenging policy dilemmas in other parts of the electricity market have occupied the attention of policymakers. States have used the National Council work in various ways and to varying degrees, added local interests, and made labels of their own. The labels, then, have been put out to consumers, and are building build a track record.

Soon, assessments of their success serving consumers and markets will need to be done to learn what can be learned from experience so far. It would also be unwise to assume a static market – innovation is likely to produce new and presently undefined challenges that will affect disclosure policy implementation.

It is obvious that this effort to introduce electric product disclosure labels seeks to add information to a society already filled with information. This leads to two points for underscoring here:

- It is important that the information reported be selected wisely
- It will enhance the value of the exercise if other actions on the part of government and the industry are reinforcing the value of this information.

The reasoning behind the first has already been discussed. The purpose is to connect with the consumer, providing what the consumer wants to know without making it hard.

The second point speaks to the relationship between the public and its institutions. It is no secret that the public has seen evidence of a disconnection between what government does and what government says. Disclosure policies can guide government actions, as well as consumer actions, to change state and national results on fuel mix, environmental profiles, prices, and consumer protection to be more in line with public policy objectives. In this way, disclosure policy can achieve higher credibility with consumers, and usefulness for society.

There are lessons in how labels are developed. A collaborative process that includes all stakeholders is desirable to assure that all market perspectives are considered. It is equally important, however, that the collaborative process be guided by clear public policies to maintain a consumer interest focus on priorities. This should not be construed as dismissing commercial priorities, but should be interpreted as favoring the consumer interest as the unifying principle – commercial interests should be furthered for the purpose of serving the public.

While there is a good debate on whether disclosure should be a national requirement, there is less of a concern about assuring that if states want a disclosure requirement, the

industry should be ready, willing and able to support those requirements. This has implications for the U.S. Federal Energy Regulatory Commission.

FERC is presently organizing reforms to the wholesale electric market. One category of those reforms is known as "standard market design." The concept is that regional system operators would operate the grid for reliability and market purposes, and that some consistency in these rules across the nation would further the public interest.

Some have suggested that one element of the standard market design should be the capacity to support state disclosure systems. This appears to be a sensible balance between state and federal jurisdictional concerns, and between the interests of public policy and industry. In this approach, federal authority enables state choices, and requirements on industry leading to costs are consistent with public policy.[51]

Policy Recommendations

The following are policy recommendations that flow from this report. Further support for some is contained in prior National Council reports from the Consumer Information Series, listed at the front of this report.

Standardization

States should consider standardizing the format of electric product disclosure labels, especially with respect to labels in neighboring states. This action would be of value to both customers and retail suppliers. Customers would be able to look for similar information expressed in similar ways on the label, while suppliers would be able to have minimal differences from state to state, minimizing cost.

However, rigid adherence to a standard form would be counter-productive. Individual state concerns can and should be reflected on labels in those states, and marketers of innovative products should not find the label to be a barrier to get to market.

Federal legislation and implementing regulations, if any, should go far enough to promote standardization without going so far as to stifle important local concerns or innovation.

Multi-state efforts would be useful to resolve differences in the definitions of fuel mix categories, and to assure that attributes can be traded among states in large regions.

Label Content

The objective of the label content is to make an impression on the consumer. The correct balance of information is important. Too much information can be as bad as too little.

[51] See Joint comments of public interest & other organizations on standard market design elements critical to demand side & renewable resources, FERC Docket No. RM01-12-000, April 2002.

Disclosure requirements should be driven by policy decisions of lawmakers and regulators, and the most efficient method to meet those requirements should be selected.

Administration

Labels should be presented to consumers 2-4 times per year. Current labels (most recently presented to customers) should be available on the Internet. Current labels should be presented to customers at the point of sale, meaning when a new customer begins service, or when a customer is considering switching to a new product or new supplier.

Information Sources

Facts used on the labels should be easily verifiable.

Proprietary information can be used in the disclosure process with suitable and effective protections for the information. Proprietary information should not restrict the ability of the information to be used.

E-GRID is likely to remain a primary source of environmental information for states with labeling requirements. Therefore, it is important that E-GRID continue as an EPA program. An opportunity for improvement would have EPA issue E-GRID information for a previous year as soon as possible in the following year.

The merits of Continuous Emissions Monitoring information to support electric product disclosure labeling in comparison with E-GRID should be evaluated at some future time after each as had some time to work.

The choice between tracking and tagging to assemble information for labels and to support marketing claims should be driven by the effectiveness to meet policy objectives of the states involved and the needs of market participants. There is no apparent effect on customers from this decision.

System power should be disaggregated into its constituent parts for reporting purposes.

Enforcement

Government should audit disclosure systems, especially ones which enable the industry to manage the information.

Penalties for providing misleading or false information should be significant.

Evaluation

The effect of electric product disclosure labels on consumer behavior and markets should be evaluated. This evaluation will only be valuable when there is significant opportunity for retail choices.

Development

Monopoly states should consider disclosure to support existing and prospective green pricing programs.

States should remove barriers to clean power choices and other products that can be differentiated.

Monopoly states with portfolio requirements, tradable credit systems, or planning guidelines for their electric industry should make clear policy addressing whether utilities should sell valuable attributes, or whether utilities should keep them. Regulators should assure that the consumers' economic and environmental interests in these attributes are fully considered, and that there are no claims made for attributes that have, in fact been sold in the market.

APPENDIX A: WEB SITE RESOURCES

There are many resources on the Internet for learning more about electric product disclosure. Sample labels, actual labels, laws and regulatory rules are among the resources. Here is a listing of web sites with useful information.

http://www.ncouncil.org

http://www.state.me.us/mpuc/electric%20restructuring/disclosure_labels.htm

http://www.state.ma.us/thepower/electric.gif

http://www.powertochoose.com/yourchoice/eflframe.html

http://www.cc.state.az.us/utility/electric/hmpage/BORIGHTS.HTM

http://www.aps.com/images/disclosure.jpg

http://www.dcpsc.org/ci/cch/elec/elec2.html

http://www.icc.state.il.us/icc/Consumer/plugin/guide.htm#Energy

http://www.icc.state.il.us/icc/ec/docs.asp#edis

http://www.psc.state.md.us/psc/electric/emissiondisclosurerules.htm

http://www.dps.state.ny.us/OEELabel.pdf

http://www.dps.state.ny.us/EnvDisclosureLabel.html

http://www.cis.state.mi.us/mpsc/electric/restruct/disclosure_template.htm

http://arcweb.sos.state.or.us/rules/OARS_800/OAR_860/860_038.htmlsee 860 038 0300

http://www.green-e.org/

http://www.tva.gov/greenpowerswitch/

http://www.electric.seviervilletn.org/

http://www.energy.ca.gov/sb1305/documents/index.html

http://www.iso-ne.com/settlement_reports/GIS_Asset_Information/

http://nepoolgis.com

http://www.naag.org/issues/issue_list.cfm

http://www.ftc.gov/bcp/conline/edcams/eande/index.html