

**Renewable Energy and the
North American Free Trade Agreement:
Are They Compatible?**

**Scott Hempling
Attorney at Law**

**(301) 681-4669
shempling@hemplinglaw.com
www.hemplinglaw.com**

**Committee on International Relations
National Association of Regulatory Utility Commissioners
Annual Meeting**

**Atlanta, Georgia
November 16, 2003**

Introduction

Conserving the world's exhaustible resources while maintaining and increasing the quality of life has long challenged the world's policy makers. A recently developed policy, the "renewables portfolio standard" ("RPS") seeks to promote this goal in a manner that relies on competitive markets. The RPS, briefly put, is an obligation on each retail seller of electricity to include in its resource portfolio a certain amount of electricity from a defined group of renewable energy resources. An important feature of the policy is the ability of retailers to "trade" their obligation; that is, instead of maintaining renewable energy in their own energy portfolios, retailers are allowed to purchase tradable credits that demonstrate that someone else has generated the required amount of renewable energy.

Some have argued that a state or national RPS program might violate the North American Free Trade Agreement ("NAFTA").¹

This outline presents the argument defending state-level and U.S. renewables programs from attack under NAFTA.

Part I describes the values of emphasizing renewable energy resources, and how those values are consistent with NAFTA.

Part II responds to specific concerns that RPS statutes might violate NAFTA.

Part III explains why one proposed resolution of the NAFTA concerns -- the imposition of an identical definition of RPS-eligible renewables throughout North America, would render RPS statutes ineffective.²

¹ See the North American Commission on Environmental Cooperation's (NACEC) Working Paper entitled "Environmental Challenges and Opportunities of the Evolving North American Electricity Market." The Working Paper refers to a legal analysis commissioned by the NACEC: Gary Horlick, Christiane Schuchhardt, and Howard Mann, "NAFTA Provisions and the Electricity Sector" (Nov. 8, 2001) (hereinafter cited as "Horlick Paper").

² This outline is based on a paper authored by Scott Hempling and Nancy Rader for the Union of Concerned Scientists. The full paper is available at http://www.hemplinglaw.com/topics/ucs_nafta.pdf.

I. RPS Statutes Promote Values Long Recognized in International Trade Law

A. Values of emphasizing renewable sources

Renewable energy resources benefit consumers and society. These values are cited in the preambles to a variety of state RPS statutes.³ Prominent among these values are four:

1. **Environment:** Compared with fossil fuel and nuclear plants, most renewable energy resources have modest environmental impacts in many or all of the following areas: air pollution, climate change, degradation of land and water, water use, wildlife impacts, and radioactive wastes.
2. **Conservation of exhaustible resources:** Substitution of renewable resources means less dependence on exhaustible resources, like finite stocks of fossil fuels and the finite ability of the Earth's atmosphere to absorb carbon dioxide (CO₂) emissions while maintaining a stable climate. In addition, large-scale hydroelectric plants that permanently alter river ecosystems consume an exhaustible supply of river resources.
3. **Resource diversity benefits:** This diversity increases price stability, improves electrical system reliability, and promotes competition.
4. **Technology advancement benefits:** Promoting renewable resources simultaneously advances the associated technologies, lowering their costs and increasing their energy-conversion efficiencies. Technology advancement will, in the long run, allow society cost-effective access to new sources of energy on a large scale.

³ See, e.g., Maine, Public Law 1999, ch. 398, sec. 3210 ("to ensure an adequate and reliable supply of electricity for Maine residents ... to diversify electricity production on which residents of this State rely"); New Jersey, Subchapter 8, N.J.A.C. 14:4-8 ("encourage the development of renewable sources of electricity and new, cleaner generation technology; minimize the environmental impact of emissions from electric generation; reduce possible transport of emissions and minimize any adverse environmental impact from deregulation of energy generation"); Texas, Substantive Rule Section 25.173 ("reduce air pollution in Texas that is associated with the generation of electricity using fossil fuels; ... respond to customer preferences that place a high value on environmental quality and reflect a willingness to pay a higher price for "clean" energy acquired from renewable resources"); California, Senate Bill 532 (2001, pending) ("Improves the resource diversity in the electricity market that serves the state, and increases the reliability of the state's electricity system.").

B. Consistency of these values with international trade law

Both NAFTA and the General Agreement on Tariffs and Trade (GATT) establish the principle that nations should protect the environment and conserve resources. For example:

1. GATT 1994, Article XX, allows exceptions to other GATT requirements for measures "necessary to protect human, animal or plant life or health" (Article XX(b)); and for nondiscriminatory measures "relating to the conservation of exhaustible natural resources" (Article XX(g)).
2. NAFTA Article 104 emphasizes the importance of pre-existing environmental agreements. NAFTA Articles 904:1 and 904:2 emphasize the importance of "protection of human, animal or plant life or health, the environment or consumers."
3. RPS statutes further these goals. As discussed in Part II below, existing international trade law precedent, as applied to RPS statutes, does not support the conclusion that in the area of RPS statutes, these principles must give way to exporters seeking to increase use of exhaustible resources.

II. International Trade Law Precedent Does not Support a Conclusion that RPS Statutes Violate NAFTA

A. Overview

1. Arguments have arisen that RPS statutes violate NAFTA. These arguments fall under two categories:
 - a. the "national treatment" requirement
 - b. the ban on extra-jurisdictional action
2. In each of these two categories, existing precedents do not support a conclusion that the RPS statutes are invalid.

B. The "national treatment" requirement

1. NAFTA and related provisions

- a. Article 301:1 of NAFTA imposes on the NAFTA signatories an obligation of "national treatment" as established by the General Agreement on Tariffs and Trade.⁴
- b. This principle requires that "with respect to a state or province, treatment no less favorable than the most favorable treatment accorded by such state or province to any like, directly competitive or substitutable goods, as the case may be, of the Party of which it forms a part." NAFTA Article 301:2.
- c. Furthermore, Article III:1 of GATT (1994) provides:
 1. The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale,

⁴ "Article 301: National Treatment

"1. Each Party shall accord national treatment to the goods of another Party in accordance with Article III of the General Agreement on Tariffs and Trade (GATT), including its interpretative notes, and to this end Article III of the GATT and its interpretative notes, or any equivalent provision of a successor agreement to which all Parties are party, are incorporated into and made part of this Agreement."

purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions, should not be applied to imported or domestic products so as to afford protection to domestic production.

d. And Article III:4 of GATT (1994) provides:

4. The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use. The provisions of this paragraph shall not prevent the application of differential internal transportation charges which are based exclusively on the economic operation of the means of transport and not on the nationality of the product.

e. Finally Article 606 of NAFTA applies the "national treatment" principle to "energy regulatory measures."

Subparts 2 and 3 of this section address two arguments that RPS statutes violate this national treatment requirement.

2. The "like product" analysis and its relationship to "processes and production methods"

a. Overview

(1) Some have argued that the RPS concept is a "processes and production methods" (PPM) trade measure and therefore vulnerable under NAFTA. The argument goes as follows:

(a) There are two types of PPM: "product-related PPM," in which the product harms the environment through its consumption or use; and "non-product-related PPM," in which the product harms the environment through its production but not through its consumption or use.

- (b) The RPS is a non-product-related PPM because it restricts use based on the manner in which the electricity is produced.
 - (c) The RPS is a non-product-related PPM because "the fact that renewable resources were used in the process ... is not a perceptible characteristic of the resulting end product" (Horlick at 9); and because all electricity, when consumed, has the same effect whether it originates from renewable or non-renewable sources.
 - (d) Referring to the required treatment for "like ... goods" (Article 301(2) of NAFTA) and "like products" (Article III:4 of GATT (1994)), because electricity from renewable and nonrenewable sources have the same effect, "imported electricity generated with a renewable resource not included in a State's renewable resources portfolio is 'like' electricity produced by a domestic producer within the renewables definition of the State....Domestic and imported electricity from renewable resources therefore need to be given the same treatment under Article 301 and 606 of NAFTA and Article III:4 of the GATT 1994." (Horlick at 9).
- (2) There are two main problems with this reasoning, as discussed next.
- b. The PPM Analysis incorrectly characterizes electricity as a commodity, focusing only on environmental damage and not on other RPS benefits.
- (1) Underlying the foregoing reasoning is an unstated premise: all electricity is a commodity. As a commodity, there is a no difference to the customer, or to the RPS states, whether the product comes from renewable or non-renewable sources.
 - (2) This premise is incorrect. In the minds of policy makers and consumers, renewable power is different from nonrenewable power, at the point of consumption, for at least the following reasons:

- (a) **Fuel diversity as a means to reduce price volatility:** Procuring electricity from different sources applies a "risk portfolio" approach to fuels price management, to avoid the volatility in the price of any one fuel source.
 - (b) **Fuel diversity as a means to increase reliability:** A balanced mix of fuel sources reduces the risk that a single event, such as a fuel supply shortage, will affect a large portion of the portfolio serving customers.
 - (c) **Customer preference:** There is clear evidence that some customers view renewable energy as a product distinct from nonrenewable energy. This evidence includes the branding by some electric suppliers of their power as renewable, and the willingness of some consumers to pay more for that product. (See, e.g., Farhar, 1999; Swezey and Bird, 2001; Wiser, Bolinger and Holt, 2000.) Customers are willing to pay more because they perceive renewably produced electricity to have positive economic, diversity, and environmental attributes. Because some customers view the products as nonsubstitutable, they should not be considered "like" for purposes of GATT.
- (3) These facts shield the RPS from the argument that electricity coming from renewable and nonrenewable sources "share[s] the same physical qualities." For example, the Horlick paper (at 9) states: "If an imported and domestic product share the same physical qualities, i.e., are 'like', the importing country cannot restrict or condition the internal offering for sale, purchase, transportation, distribution or use of imported products arguing that they must fulfill specific environmental standards."⁵ The public's demand for renewables, as evidenced by the interest in diversity and the willingness to pay more for the product, demonstrates that the purchase decision has more dimensions than merely "physical" ones.

⁵ Horlick at 9, citing European Communities -- Measures Affecting Asbestos and Asbestos-Containing Products ("Asbestos"), WT/DS135/AB/R (adopted April 5, 2001).

- c. Where an RPS does not discriminate based on location, there is no vulnerability from the "like product" analysis under NAFTA or GATT.
- (1) RPS statutes necessarily distinguish among types of fuel used by the generator. But only rarely do they discriminate based on location of the generator.⁶ The "national treatment" principle is concerned with the latter, not the former.
 - (2) Thus an international trade tribunal has found:

"... Article III obliges Members of the WTO to provide equality of competitive conditions for imported products in relation to domestic products. Article III protects expectations not of any particular trade volume but rather of the equal competitive relationship between imported and domestic products."

Appellate Body Report, Japan - Alcoholic Beverages (1996) at 109 and 110) (emphasis added).
 - (3) The relevant comparison, in the "like" analysis, is not between renewable and nonrenewable products, but between domestic and imported products.
 - (4) In the RPS concept, the distinctions among fuel types are just that: distinctions among fuel types, not distinctions between imported and domestic products. Excluded from the definition of renewables is U.S. coal along with Canadian and Mexican coal; U.S. nuclear along with Canadian and Mexican nuclear, U.S. large hydroelectric along with Canadian and Mexican large hydroelectricity, and so on.

⁶ Some state RPS laws explicitly exclude renewable energy generated from out-of-state or non-U.S. sources. Such laws would likely violate the Commerce Clause of the U.S. Constitution, as well as NAFTA. This paper therefore addresses RPS laws which do not have this feature.

3. "De facto discrimination"

a. Some have argued that when a facially neutral statute falls differentially on different nations, the result is "de facto discrimination" which is inconsistent with the "national treatment" requirement of NAFTA and GATT (1994). Beginning with this legal premise, the argument then points to the RPS statutes' frequent exclusion of large hydroelectric plants, along with the large investment in such plants in Canada, and suggests that the RPS statutes violate NAFTA. The argument seems to be based on the following syllogism:

(1) RPS statutes exclude large hydro.

(2) Canada owns a lot of large hydro.

(3) Therefore the RPS statutes discriminate against Canada.

b. This syllogism reveals the error. U.S. RPS statutes exclude not only Canadian large hydro, but U.S. large hydro. Not to mention U.S. coal, gas and nuclear power, which together make up over 80% of the United States's generation base, constitutes de facto discrimination against any other nation. The purpose of GATT 1994 is not to protect expectations of particular trade volumes. Thus the correct question is whether the law discriminates against imports, not whether it has a differential effect on trade.

[I]t is conceivable that a tax consistent with the national treatment principle (for instance, a high but non-discriminatory excise tax) has a more severe impact on the exports of other contracting parties than a tax that violates that principle (for instance a very low but discriminatory tax). The case before the panel illustrates this point: the United States could bring the tax on petroleum in conformity with Article III:2, first sentence, by raising the tax on domestic products, by lowering the tax on imported products or by fixing a new common tax rate for both imported and domestic products. Each of these solutions would have different trade results, and it is therefore logically not possible to determine the difference in trade impact between the present tax and one consistent with Article III:2, first sentence, and hence to determine the trade impact resulting from the non-observance of that provision.

United States - Taxes on Petroleum and Certain Imported Substances, BISD 34S/136, para. 5.1.9.

- c. A separate argument has been that excluding hydroelectric resources based on size will discourage U.S. electricity brokers from importing Canadian hydro because the brokers will "need to gather and administer information on the capacity of a plant." (Horlick at 11). These brokers will have to gather information on the size of U.S. plants as well. This U.S. information is readily available from the FERC Form Ones and other sources. There is no evidence that the information is not equally readily available in other countries. If other nations have chosen to keep generation size information secret, that fact is not reason to invalidate U.S. laws. Nor is there any evidence that, assuming there is a difference in fact-gathering costs, that such difference is competitively significant.

C. Extra-jurisdictional action

- 1. By requiring the local utility to buy stated percentages of renewable power, an RPS statute effectively limits a utility's purchases of nonrenewable power. Pointing to this result, some have argued that RPS statutes have an "extra-jurisdictional" effect; that they force citizens of other nations to alter their behavior even though that behavior has no effect on the RPS states. Such extra-jurisdictional effect would violate NAFTA.
- 2. This argument is incorrect, for two reasons.
 - a. **First, damage to air and water resources from the use of energy resources affects the RPS state.** Air and water are exhaustible resources, and they are resources shared among nations. An RPS statute reduces reliance on energy products or processes that diminish exhaustible air and water resources. Even where those energy products or process are located outside the state, a reduction in their use contributes to the improvement of air and water resources within the state. As the Horlick paper points out (at 15), this reasoning has support in the Shrimp-Turtle decision. There the Appellate Body found that sea turtles are "highly migratory animals, passing in and out of waters subject to the rights of jurisdiction of various coastal states and the high seas." United States - Import Prohibition of Certain Shrimp and Shrimp Products, WT/DS58/AB/R, AB-1998-4, Para. 133. Furthermore, they "are known to occur in waters over which the

United States exercises jurisdiction." Id. In "these specific circumstances," there was "sufficient nexus between the migratory and endangered marine populations involved and the United States for purposes of Article XX(g)." Id.

- b. Second, to assert that limits on in-state use of exhaustible resources violates some jurisdictional limit misses the point of conservation, and the RPS' role therein.** State RPS laws recognize the in-state effect from overuse of exhaustible resources. Few if any states are blessed with all the power resources they need within their states. Every state depends on resources produced elsewhere; and thus every state faces the risk that those out-of-state resources will be exhausted prematurely. RPS laws are aimed at conservation of resources; i.e., the saving of resources for a later date. The present depletion of resources located outside the state, which resources otherwise were expected to be available later within the state, is a direct concern of the state. The state, in addition, is not acting on out-of-state actors only; the state is denying its own citizens the ability to use a certain amount of exhaustible resources.

III. Imposing on North America an Identical Definition of RPS-Eligible Renewables Would Render RPS Statutes Ineffective

To avoid being perceived as a problem under NAFTA, the NACEC Working Paper suggests "harmonizing" the definition of renewable energy in RPS measures. "Harmonization" means imposing a fixed standard for renewables in each state and nation. This Part III explains why federal and sub-federal governments cannot craft effective, efficient RPS laws if they must include all hydropower resources, as well as all other categories of renewable energy resources.

A. Each state has defined "eligible resources" to achieve the RPS' environmental, conservation and diversification objectives without unnecessary cost

No RPS law or proposal contains a definition of eligible renewable energy resources that includes the entire universe of such resources -- i.e., every fuel and technology type, every existing renewable energy generator, and generators in every location. Rather, governments reduce the universe of available renewable resources to those resources that can help achieve their policy goals without unnecessary cost.

In creating these policies, states focus on such distinctions as competitive vs. noncompetitive resources, and generators that provide the desired benefits vs. those that do not. Each is discussed next.

1. Competitive vs. noncompetitive resources

In adopting RPS laws, states seek to create a market for resources that require financial support beyond that which is available in the general market. To allow entry to that market by resources that do not require such support, either to maintain or commence production, would provide no benefits while increasing costs. Seeking to maximize benefits and minimize costs, states have determined which resources require RPS support. States have found that whether a resource requires RPS support depends on whether a facility is existing or new, and whether it is receiving financial support already.

- a. Existing vs. new.** Frequently, not every existing facility of a particular resource or technology type needs support to continue operating. In this situation, states can make eligibility decisions on a plant-by-plant basis, or exclude the entire group from eligibility.

Excluding from RPS eligibility an entire category of existing resources makes economic sense if the entire group (or most of it)

does not require support to operate profitably over the long term. But if only a subset of existing facilities requires support, states determine whether the cost of including the entire group of existing facilities -- and raising the RPS percentage requirement to accommodate it -- would outweigh the benefits gained. Costs may outweigh benefits even when the at-risk subset is less costly than the new facilities that would replace them if they are not protected under the RPS.

- b. Other forms of support.** States also have looked at the types of support that particular projects already have. When existing resources are already receiving sufficient payments under existing utility contracts entered into under PURPA or under ratemaking policies, they do not require the support of an RPS. Likewise, new facilities whose above-market costs are being recovered through other policies of the state, neighboring states, or the federal government do not require additional support from the state's RPS.

2. Generators that provide the desired benefits vs. those that do not

As discussed in Part I above, renewable resources offer many benefits: various types of environmental benefits, conservation of exhaustible resources, greater electricity fuel source diversity, and technology advancement. In deciding which renewables will be eligible to satisfy the RPS, policy makers match their particular policy goals with the characteristics of different renewable resources, including their environmental characteristics, and whether the generator provides benefits to the population that will pay for the RPS policy.

- a. Environmental benefits.** If policy makers seek clean air benefits, they might exclude some types of waste incinerators based on evidence that such generators produce hazardous air emissions. Likewise, if they are seeking to reduce carbon dioxide emissions or improve river habitats, they may exclude some or all types of hydroelectric facilities.
- b. Population-benefit nexus.** Policy makers usually also impose eligibility requirements on renewable energy generators to ensure a connection between the population of the state and the environmental, fuel diversity, and other benefits that are produced by the generators seeking the benefits of the state's RPS. Some types of nexus requirements, such as in-state location requirements, raise U.S. Constitutional issues and might also create legitimate grounds for a dispute under NAFTA.

But states can also impose nexus requirements that differentiate among resources in a way that is far less vulnerable to legal challenge. Namely, they can restrict eligibility to renewable generators, wherever located, that **produce the desired benefits** for the RPS state. Under this approach, the state would, for example, condition the eligibility of renewable energy generators upon a showing that the generator provides the desired environmental and fuel diversity benefits to the state.

Absent such a nexus restriction on renewable generators, there could be a mismatch between costs and benefits: the costs of the RPS are imposed within the state but some or all of the benefits flow to other states, which become free-riders on the first state's investment. For example, a retail seller in Maine might purchase renewable energy from a generator in California, producing few benefits for Maine while increasing the cost of retail service in Maine. A rational political actor representing rational voters will not support such a mismatch (See Engel, 1999, at 270-71).

B. A single, hemisphere-wide definition of "eligible resources" would leave the states unable to achieve their objectives at reasonable cost

The state's definition of eligibility, and the state's RPS percentage obligation, work together to produce the state's intended benefits at the state's intended cost. Tampering with the eligibility definition would, at best, require states to adjust their percentage obligations and, at worst, render the RPS ineffective. Forcing the inclusion of large hydropower resources into the definition of eligible resources would fall in the "at worst" category. We present an illustrative example:

1. Consider a state that receives one percent of its power from aging hydropower facilities and one percent of its power from a biomass power plant, all of which are at risk of being supplanted in the market by resources with lower (direct) costs. In addition, a considerable quantity of hydro capacity exists that (a) is not at-risk and (b) is not currently serving the state but could be redirected to do so. The state wishes to protect its existing resources and add an additional five percent of new renewable resources. But the state realizes that, if it includes all existing resources in its definition of RPS-eligible resources, the hydro capacity that is not at-risk would fulfill a substantial portion or all of the seven-percent demand that would be created. The state therefore excludes hydropower from its definition of RPS-eligible resources and reduces the RPS obligation to six percent because, otherwise, it would incur policy costs without reaping any benefits.
2. If the state were forced to make hydropower eligible for its RPS, it would, at a minimum, incur policy administration costs. In the event that there

was more than enough low-cost hydropower to fulfill the entire six-percent demand created by the state's RPS, the available quantity of hydropower should fail to produce a price premium in the RPS market (absent market power), and therefore the only costs that the state would incur would be policy administration costs. But this result would also fail to achieve the state's goals of supporting its at-risk facilities or of supporting the development of additional renewable resources.

3. In the event that there were insufficient low-cost hydro resources to fulfill the six-percent demand, the state will be forced to pay the market-clearing price in the RPS market (determined by resources other than the low-cost hydro) for resources that do not need additional support. The state would also have failed to add the full five percent of additional renewable resources.

In both of these cases, the state would more rationally abandon its RPS policy.

Similar problems would arise at the U.S. federal level due to large existing quantities of U.S. and Canadian hydropower resources, most of which have relatively low operating costs.

Conclusion

For the policy and practical reasons explained above, if hydropower -- and all other renewable energy resources, existing or new -- are forced into state and provincial RPS requirements, it would render useless these state policies. In so doing, harmonization would strike down a means of sustaining exhaustible resources that is effective, efficient, and wholly consistent and compatible with competitive electricity markets.

From the perspective of the U.S., effectively nullifying RPS laws would eliminate a tool that promises to rehabilitate renewable energy development after a decade of stagnation as competitive markets were being developed. The RPS policies in effect have already added several hundred megawatts of new renewables capacity, with thousands more to come.