

1980

H.B. 154: Ohio Creates Renewable Energy Resource Tax Incentives and Solar Access Easements

Scott Edward Miller
University of Dayton

Follow this and additional works at: <https://ecommons.udayton.edu/udlr>

Recommended Citation

Miller, Scott Edward (1980) "H.B. 154: Ohio Creates Renewable Energy Resource Tax Incentives and Solar Access Easements," *University of Dayton Law Review*. Vol. 5: No. 2, Article 13.
Available at: <https://ecommons.udayton.edu/udlr/vol5/iss2/13>

This Legislative Notes is brought to you for free and open access by the School of Law at eCommons. It has been accepted for inclusion in University of Dayton Law Review by an authorized editor of eCommons. For more information, please contact mschlange1@udayton.edu, ecommons@udayton.edu.

H.B. 154: OHIO CREATES RENEWABLE ENERGY RESOURCE TAX INCENTIVES AND SOLAR ACCESS EASEMENTS

I. INTRODUCTION

Until 1973 the United States enjoyed declining real energy prices coupled with continued economic growth and increased energy consumption.¹ Escalating energy costs due to foreign price increases and greater energy consumption have put this country in a perilous position.² Growing reliance on foreign energy sources and the realization that our primary energy sources—petroleum, natural gas, and coal—are nonrenewable accentuate the energy problem.³ This energy dilemma has stirred the federal government⁴ and the states⁵ to varied reactions. Conservation⁶ and the renewable energy sources—solar,⁸ wind,⁹

1. Jorgenson, *The Role of Energy In The U.S. Economy*, 31 NAT'L TAX J. 209, 209 (1978). The author noted that this relationship had been the historical trend for the past 200 years.

2. Metzenbaum, *Meeting The Challenge of World Energy Shortage*, 10 CASE W. RES. J. INT'L L. 613, 613 (1978). The author, U.S. Senator from Ohio, stated that foreign oil importation has caused the American dollar to be devalued and has eroded our balance of payments with foreign countries.

3. McKelvey, *World Energy—The Resource Picture*, 10 CASE W. RES. J. INT'L L. 597, 599-603 (1978).

4. See the National Energy Act of 1978. The Act consists of the Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat. 3117 (codified in scattered sections of 15, 16, 30, 42, 43 U.S.C.); Energy Tax Act of 1978, Pub. L. No. 95-618, 92 Stat. 3174 (codified in scattered sections of 19, 26 U.S.C.); National Energy Conservation Policy Act, Pub. L. No. 95-619, 92 Stat. 3206 (1978) (codified in scattered sections of 12, 15, 42 U.S.C.); Powerplant and Industrial Fuel Use Act of 1978, Pub. L. No. 95-620, 92 Stat. 3289 (codified in scattered sections of 15, 19, 42, 49 U.S.C.); and the National Gas Policy Act of 1978, Pub. L. No. 95-621, 92 Stat. 3350 (codified in scattered sections of 15, 42 U.S.C.).

5. See R. Adams, *An Analysis of Solar Legislation—Taxes and Easements*, 14 LAND & WATER L. REV. 393 (1979) [hereinafter cited as *An Analysis of Solar Legislation*]. For an excellent review of Ohio's response to the energy problem see Note, *H.B. 467: Tax Incentives for the Construction of Conversion and Conservation Facilities*, 4 U. DAY. L. REV. 477 (1979) [hereinafter cited as H.B. 467].

6. Although the role of conservation in the energy problem is beyond the scope of this note, the reader is referred to the National Energy Conservation Policy Act, Pub. L. No. 95-619, 92 Stat. 3206 (1978) (codified in scattered sections of 12, 15, 42 U.S.C.) and H.B. 467, *supra* note 5, at 477-93.

7. For the purposes of this note, renewable energy source means an energy source that does not originate from fossilized vegetation.

8. In Comment, *Solar Rights: Guaranteeing a Place in the Sun*, 57 OR. L. REV. 94 (1977) [hereinafter cited as *Guaranteeing Solar Rights*], the author stated that solar energy has the advantage of being nondepletable and nonpolluting, *id.* at 95, as well as technologically feasible, *id.* at 97 n.8.

The author of *An Analysis of Solar Legislation*, *supra* note 5, at 394, noted that solar energy collection is now available for space and hot water heating, which accounts for one-fifth of all energy consumed in the United States.

9. In R. Taubenfeld & H. Taubenfeld, *Wind Energy: Legal Issues and Legal Bar-*

and geothermal,¹⁰ are the focus for much of this governmental activity. Although renewable energy sources are promising, impeded legal access to them¹¹ and their high initial-system cost¹² are the most serious drawbacks to an otherwise bright future.

By enacting H.B. 154,¹³ the Ohio General Assembly has attempted to deal with the energy problem by focusing on renewable energy sources. The most important provisions in H.B. 154 endeavor to mitigate the drawbacks of the renewable energy sources by creating tax incentives¹⁴ and solar access easements.¹⁵ The anticipated effect of H.B. 154 is to stimulate the use of renewable energy systems. Principally, this will be accomplished by bringing renewable energy incentives up to par with the incentives that nonrenewable energy sources currently receive.¹⁶ Increased usage of renewable energy systems would help control inflation,¹⁷ create jobs in Ohio's solar energy industry,¹⁸ and conserve Ohio's supplies of fossil fuels.¹⁹ Thus, H.B. 154 responds to the energy problem by attempting to make the renewable energy sources physically accessible and economically practical.

The discussion of H.B. 154 begins with an analysis of the mechanics and procedures applicable to each eligible energy system enumerated in the bill. The final section analyzes the effectiveness of H.B. 154 in light of comparable statutes and problems identified by commentators.

riers, 31 Sw. L.J. 1053 (1977) [hereinafter cited as *Wind Energy*], the authors noted that the wind as a source of energy is immense, potentially permanent, and non-exhaustible and involves minimal environmental hazards. *Id.*

10. In Comment, *Geothermal Resource Development in Texas*, 29 BAYLOR L. REV. 993 (1977) [hereinafter cited as *Geothermal Resource Development*], the author stated that geothermal energy is a promising resource in an era of dwindling fossil fuel supplies. *Id.*

11. See *Guaranteeing Solar Rights*, *supra* note 8, at 98-102; *Wind Energy*, *supra* note 9, at 1073; *Geothermal Resource Development*, *supra* note 10, at 993.

12. See *Guaranteeing Solar Rights*, *supra* note 8, at 98 (solar energy) and *Wind Energy*, *supra* note 9, at 1086 (wind energy).

13. Am. Sub. H.B. 154, 113th General Assembly (1979) (codified at OHIO REV. CODE ANN. §§ 1551.20, 4933.31-.32, 5301.63, 5709.53, 5733.062, 5739.02(B)(13) -.02(B)(26), 5747.053) (Page Supp. 1979).

14. *Id.* §§ 5709.062, 5739.02(B)(13), .02(B)(26), 5747.053.

15. *Id.* § 5301.63.

16. *Hearings on proposed amendments to H.B. 154 before the House Ways & Means Comm.*, 113th General Assembly (1979) (testimony by Representative Dennis Eckart); see *An Analysis of Solar Legislation*, *supra* note 5, at 397.

17. *Hearing on proposed amendments to H.B. 154 before the House Ways & Means Comm.*, 113th General Assembly (1979) (testimony by Representative Dennis Eckart).

18. *Id.*

19. OHIO REV. CODE ANN. § 5747.053 (Baldwin 1979).

II. MECHANICS AND PROCEDURE

A. *Eligible Energy Systems*

H.B. 154 confers preferential status on energy systems that meet certain guidelines. Those qualifying systems are eligible for the benefits created by the legislation.

The bill defines a solar or wind energy system as "any method used directly to provide space heating or cooling, hot water, industrial process heat, or mechanical or electric power by the collection, conversion, or storage of solar or wind energy including, but not limited to, active or passive solar systems."²⁰ This definition excludes conventional equipment that does not use solar or wind energy, as well as roofs, windows, or walls that are not designed or modified to use solar energy for space heating or cooling.²¹ H.B. 154 defines a hydrothermal energy system as "any method used directly to provide a heating or cooling effect by causing a thermal exchange with the earth utilizing any water source, including ground or surface water by using appropriate heat exchange equipment."²²

The Director of Energy is authorized to adopt guidelines for identifying solar, wind, or hydrothermal energy systems and their components.²³ The Director of Energy is further authorized to promulgate guidelines for the safety and thermal efficiency of these energy systems.²⁴ The proposed guidelines differentiate conventional systems and components from the eligible renewable energy systems and their components.

B. *Tax Incentives*

1. Real Property and Sales and Use Tax Exemptions

A solar, wind, or hydrothermal energy system that complies with the administrative guidelines and is constructed or installed before

20. *Id.* § 1551.20(A).

21. *Id.*

22. *Id.*

23. *Id.* § 1551.20(B). The Director of Energy has published proposed guidelines as authorized by this provision. (The guidelines are available from the Ohio Department of Energy, Columbus, Ohio.) The rules should be a major factor in determining the effectiveness of H.B. 154. The proposed guidelines amplify the definitions of solar, wind, and hydrothermal energy systems and components found in the bill. Presumably this will allow greater flexibility and certainty for interested parties. These substantive rules were adopted by the Department of Energy pursuant to section 1551 and chapter 119 of the Revised Code. See Ohio Department of Energy Rule Nos. 1551:3-1-01 to -06 (proposed Jan. 1980).

24. The proposed guidelines make no mention of safety or thermal efficiency parameters. *Id.*

December 31, 1985 is exempt from real property taxation.²⁵ A sales and use tax exemption is granted for materials sold to a construction contractor if these materials meet the guidelines for eligible energy systems and components as established by the Director of Energy.²⁶ The sales and use tax exemption extends to the sale of an eligible energy system or components of these systems that meet the Director of Energy's guidelines. Installation costs of eligible energy systems are also exempt from taxation.²⁷ These sales and use tax exemptions are available until December 31, 1985.²⁸

The Director of Energy is authorized to review the detailed construction plans and design calculations of the energy system.²⁹ If the energy system complies with the established guidelines, then the Director of Energy is authorized to enter it on a list of eligible systems.³⁰ The Director of Energy is further authorized to review, at the request of any person who desires to design or install an energy system, the plans or description of that system along with its materials and components. If the system complies with the rules for eligibility, the Director of Energy will issue a certificate to the applicant.³¹

2. Corporate Franchise Tax Credit

A ten percent credit is established for the cost of purchasing and installing eligible energy systems in corporate facilities.³² The credit established under section 5733.062 is allowed against the tax imposed under section 5733.06³³ and in addition to other credits³⁴ enumerated in the Revised Code. The credit established by H.B. 154 cannot exceed the corporation's tax liability for that year and is only available in the taxable year subsequent to the energy system's installation and operation. Only one taxpayer may claim the full credit for a given building

25. OHIO REV. CODE ANN. § 5709.53 (Baldwin 1979).

26. *Id.* § 5739.02(B)(13).

27. *Id.* § 5739.02(B)(26).

28. *Id.* § 5739.02(B)(13), .02(B)(26).

29. *Id.* § 1551.20(C). This review will be conducted "at the request of any person who designs, manufactures, installs or constructs solar, wind or hydrothermal energy systems." *Id.*

30. *Id.*

31. *Id.* § 1551.20(D).

32. *Id.* § 5733.062. The corporate franchise credit is limited to "buildings owned and operated by the corporation and located in [Ohio]." *Id.* § 5733.06.

33. Section 5733.06 levies a tax on corporations engaged in business in Ohio. *Id.* § 5733.06 (Page 1973).

34. Section 5733.061 establishes a tax credit for tangible personal property taxes paid on property assessed at more than 20% of true value. *Id.* § 5733.061 (Baldwin 1979).

or structure, and the credit allowance is available until December 31, 1985.³⁵

A corporation seeking the tax credit established by the bill must certify on its annual franchise tax report that the energy system meets the guidelines promulgated by the Director of Energy.³⁶ A corporation must further certify the total cost of purchasing and installing the energy system. The Tax Commissioner is authorized to require the corporation to furnish information necessary to support the claim of credit; if this information is not provided, the credit is disallowed.³⁷

3. Personal Income Tax Credit

A ten percent personal credit is available for the costs incurred in purchasing and installing an eligible system.³⁸ The credit established by this provision is allowed against the personal income tax³⁹ and supplements other available credits.⁴⁰ The credit must be taken in the taxable year subsequent to the installation and operation of the energy system.⁴¹ The tax credit cannot exceed the tax liability for that year, but any unused portion of the credit may be carried forward two taxable years.⁴² The credit cannot exceed \$1,000, and the full credit can be claimed only once for a given building or structure.⁴³ The credit established by section 5747.053 expires December 31, 1985.⁴⁴

A taxpayer seeking the credit established by this provision must

35. *Id.* § 5733.062.

36. *Id.* The corporate franchise tax credit established by section 5733.062, like the real property and sales tax exemption, *see* text accompanying notes 25-31 *supra*, is greatly dependent upon the proposed guidelines and lists.

37. OHIO REV. CODE ANN. § 5733.062 (Baldwin 1979).

38. *Id.* § 5747.053. The credit is only available for buildings and structures located in Ohio and owned by the taxpayer. *Id.*

39. Section 5747.02 establishes the personal income tax in Ohio. *Id.* § 5747.02.

40. Section 5747.05 establishes certain credits when determining adjusted gross income, *id.* § 5747.05; section 5747.051 allows a credit for tangible personal property taxes paid on manufacturing property assessed at more than 20% of true value, *id.* § 5747.051; section 5747.052 establishes a credit for certain home improvements. The latter credit is limited to the lesser of 5% of the improvement costs or \$65 and can be taken once every three taxable years, *id.* § 5747.052.

41. *Id.* § 5747.053.

42. *Id.* The statute also provides that any unused amount of the credit carried forward shall be applied in the next succeeding taxable year. The remaining unused credit, if any, may be carried forward the remaining year of the two available or until fully utilized, whichever occurs first. *Id.*

43. *Id.* § 5747.053. A partnership is entitled to the credit, but it is allocated on the basis of each partner's proportionate share in the building or structure where the renewable energy system is installed. A husband and wife who filed separate returns may each claim one-half of the credit if they could have filed a joint return. *Id.*

44. *Id.*

certify that the energy system meets the guidelines promulgated by the Director of Energy. The total cost of purchasing and installing the energy system must also be certified. The Tax Commissioner is authorized to require additional information to support the credit claim; if the information is not provided, then the credit will be denied.⁴⁵

C. Solar Access Easements

Solar easements may be granted, in writing, by any person to ensure the adequate access of solar energy collection devices to sunlight.⁴⁶ This provision puts solar easements on a par with other easements by establishing that solar easements are subject to the same conveyance and recording requirements.⁴⁷

An instrument granting access must describe the solar easement as follows:

- (A) A description of the real property burdened and benefited by the solar access easement;
- (B) A description of the limits in heights, locations, or both, of permissible development on the burdened land in terms of structures, vegetation, or both, for the purpose of providing solar access for the benefited land;
- (C) Any terms or conditions under which the solar access easement is granted or may be terminated;
- (D) A term stating that the solar access easement runs with the land, unless terminated in accordance with the terms of the easement regarding termination, or unless otherwise agreed by the parties;
- (E) Any other provision necessary or desirable to execute the instrument.⁴⁸

This provision allows an owner of the benefited land to prevent obstruction of the solar easement by an action in equity or law for damages caused by the obstruction. It is also clear that this section does not affect the status of a previously recorded easement for solar access.⁴⁹ The General Assembly apparently intended solar access easements to be subject to similar requirements and remedies as other property actions.

D. Residential Consumer Protection

Section 4933.31 prohibits natural gas and gas companies from

45. *Id.* See text accompanying notes 29-31 *supra* for additional procedural information.

46. OHIO REV. CODE ANN. § 5301.63 (Page 1979).

47. *Id.* See notes 87-101 and accompanying text, *infra*.

48. OHIO REV. CODE ANN. § 5301.63 (Page Supp. 1979).

49. *Id.*

refusing to extend service to a residence that has not previously received natural gas service if the residence meets the guidelines under section 3781.181,⁵⁰ and if the residence is equipped with a solar heating system that meets the guidelines established by the Director of Energy. This provision expires on January 1, 1986.⁵¹

Section 4933.32 prohibits electric light, natural gas and gas companies, and the Public Utilities Commission, with regard to schedules and curtailment orders, from discriminating against residences that utilize an eligible energy system. No expiration date for the provision has been specified.⁵²

III. ANALYSIS

A. Tax Incentives

H.B. 154 attempts to mitigate the energy problem by encouraging the installation of renewable energy systems. Although renewable energy sources have a bright future, excessive costs associated with initial expenditures may undermine the implementation of these energy sources.⁵³ Tax incentives have been chosen to reduce these excessive initial costs. Favorable tax treatment may also have a positive impact upon developing technologies.⁵⁴ The effectiveness of H.B. 154 is dependent upon the type and magnitude of the tax incentive.

1. Real Property and Sales and Use Tax Exemptions

Because solar energy systems require larger initial capital expenditures than conventional systems, property taxes tend to discriminate in favor of the latter.⁵⁵ H.B. 154, by providing a complete exemption from real property taxation,⁵⁶ should mitigate the unfavorable treatment. A more equitable approach should stimulate the acquisition of solar⁵⁷ and wind⁵⁸ energy systems.

A similar analysis applies to sales and use taxation. A sales and use

50. Section 3781.181 authorizes the board of building standards to establish rules relating to energy conservation in all newly constructed family dwellings. *Id.* § 3781.181 (Page 1971).

51. *Id.* § 4933.31.

52. *Id.* § 4933.32.

53. See text accompanying note 12 *supra*.

54. Comment, *The Dawning of Solar Law*, 29 BAYLOR L. REV. 1013, 1023 (1977) [hereinafter cited as *Dawning of Solar Law*].

55. *An Analysis of Solar Legislation*, *supra* note 5, at 398. Wind energy systems also have high initial costs, see note 12 *supra*, and are thus in an equally unfavorable position.

56. OHIO REV. CODE ANN. § 5709.53 (Baldwin 1979).

57. *Dawning of Solar Law*, *supra* note 54, at 1023-24.

58. See note 55 *supra*.

exemption creates a psychological if not a real incentive⁵⁹ by lessening the burden of acquisition. This incentive is enhanced because fossil fuels and equipment remain subject to sales taxation.⁶⁰

Real property and sales and use tax exemptions necessarily erode the tax base because tax revenue is lost whenever an exemption is created.⁶¹ This concern is addressed in H.B. 154 by providing specific termination dates.⁶² Specific termination limits the drain of revenue from the state treasury.

Because real property exemptions apply only to property owners, and because sales exemptions are levied on a one-time basis at a relatively small percentage of the equipment's cost,⁶³ their collective impact may be minimal. Corporate and personal income tax incentives will have the most stimulating effect⁶⁴ because all taxpayers can take advantage of the favorable tax treatment.

2. Corporate Franchise and Personal Income Tax Credit

Due to the limitations of real property and sales tax exemptions, corporate and personal income taxes must provide adequate incentives if renewable energy systems are to be an effective part of the overall energy scheme.⁶⁵ Because each state must address its particular energy needs⁶⁶ due to social, economic, political, and geographic conditions, a variety of tax preference schemes have emerged.⁶⁷ Each of the methods chosen has certain drawbacks and advantages.

H.B. 154 employs a corporate franchise and personal income tax

59. *Dawning of Solar Law*, *supra* note 54, at 1024-25.

60. *An Analysis of Solar Legislation*, *supra* note 5, at 402.

61. M. Schiflett & J. Zuckerman, *Solar Heating and Cooling: State and Municipal Legal Impediments and Incentives*, 18 NAT. RESOURCES J. 313, 322-23 (1978).

62. The exemptions extend until Dec. 31, 1985. OHIO REV. CODE ANN. §§ 5709.53, 5739.02(B)(13) .02(B)(26) (Baldwin 1979). See *An Analysis of Solar Legislation*, *supra* note 5, at 398-403, for an excellent analysis of state property and sales tax exemptions; see also MD. TAX & REV. CODE ANN. § 14(b)(5) (Supp. 1979), which deals with this problem of revenue loss by assessing solar equipment at no more than the value of a conventional unit necessary for the building.

63. *An Analysis of Solar Legislation*, *supra* note 5, at 402.

64. *Id.* at 403.

65. *Dawning of Solar Law*, *supra* note 54, at 1025.

66. *An Analysis of Solar Legislation*, *supra* note 5, at 395.

67. Although Ohio has elected the credit route, other states have adopted different schemes. See IDAHO CODE § 63-3022 C (Supp. 1979) (provides a deduction incentive); ARIZ. REV. STAT. ANN. § 43-123.37 (West Supp. 1979) (provides an accelerated depreciation deduction). See also *An Analysis of Solar Legislation*, *supra* note 5, at 403-06, which contains tables that offer an excellent comparative survey of the tax statutes enacted by other states.

credit,⁶⁸ instead of deductions, as the principal incentive for implementing renewable energy systems. Credits directly reduce tax liability while deductions merely reduce the gross levels on which the liability is based; therefore, credits offer a greater economic stimulus than do deductions.⁶⁹ By increasing the potential for incentive and offering consistent advantages, credits are the preferable means to encourage implementation.⁷⁰ In order for the credit to be useful, however, the taxpayer must have some tax liability or provisions for using the credit in another taxable year.⁷¹

The bill provides ten percent credit formulas for the corporate franchise and personal income tax incentives.⁷² Other states have generally chosen higher credit percentages.⁷³ However, Ohio has not limited the state credit in terms of the available federal credits,⁷⁴ while other states have elected such limitations.⁷⁵ Because incentives should be tailored to meet state goals,⁷⁶ the amount of the credit should facilitate the incorporation of renewable energy systems into all structures.⁷⁷

The ten percent credit formula in H.B. 154 may not provide the

68. OHIO REV. CODE ANN. §§ 5733.062, 5747.053 (Baldwin 1979) (providing 10% credit formulas).

69. M. CHIRELSTEIN, *FEDERAL INCOME TAXATION* 2-3 (2d ed. 1979). The author further noted that reduction of tax liability by credits results in more equal treatment for all taxpayers regardless of their tax bracket. *Id.*

70. *An Analysis of Solar Legislation*, *supra* note 5, at 403-04.

71. M. CHIRELSTEIN, *FEDERAL INCOME TAXATION* 2 (2d ed. 1979). *See* note 72 *infra*.

72. OHIO REV. CODE ANN. § 5733.062 (Baldwin 1979). The corporate franchise tax credit has no carryover provision, and the credit cannot exceed the corporation's tax liability for the year of the applicable expenditures. *Id.* § 5733.062. The personal income tax credit contains a two-year carryforward provision and limits the available credit to \$1,000. *Id.* § 5747.053.

73. *See An Analysis of Solar Legislation*, *supra* note 5, at 406; CAL. REV. & TAX. CODE § 17052.5(a) (West Supp. 1979). (The credit is limited to the lesser of 55% of the total cost or \$3,000, and the statute contains an infinite carryforward provision.); VT. STAT. ANN. tit. 32, § 5922 (Supp. 1979) (The credit is limited to the lesser of 25% of the total cost or \$1,000, and the statute contains a four-year carryforward provision.).

In an earlier form, H.B. 154 included a 30% credit. *Hearings on proposed amendments to H.B. 154 before the House Ways & Means Comm.*, 113th General Assembly (1979) (testimony by Representative Dennis Eckart).

74. The Energy Tax Act of 1978, Pub. L. No. 95-618, 92 Stat. 3174 (codified in scattered sections of 19, 26 U.S.C.), established a federal credit of 30% of costs not exceeding \$2,000, plus 20% of costs over \$2,000 but not exceeding \$10,000. 26 U.S.C.A. § 44C (b)(2) (Supp. 1979). The effective federal credit is 22% on a \$10,000 investment.

75. CAL. REV. & TAX. CODE § 17052.5(h)(1)(2) (West Supp. 1979) and MONT. REV. CODES ANN. § 84-7414(1) (Supp. 1977) formulate the state credit available according to the extent of the federal credit.

76. *See* note 66 *supra*.

77. The almost exclusive current use of nonrenewable sources of energy in Ohio indicates that a course towards the renewable energy sources is necessary.

necessary incentive to make renewable energy sources a viable alternative for taxpayers seeking to incorporate these systems into present or newly built structures.⁷⁸ The ten percent limitation does not adequately compensate the economic realities of purchasing and installing a renewable energy system.⁷⁹ This may impair the effectiveness of the attempt to stimulate the use of renewable energy systems.

The state's fear of excessive revenue loss when a tax credit is granted coupled with the potential high administrative costs of implementing H.B. 154 may explain the size of the credit. Termination dates⁸⁰ and credit dollar limits⁸¹ may reduce these fears. The apprehension over revenue loss should not stymie the retreat from fossil fuels. All states enacting tax preference schemes have lost revenue; therefore, Ohio's position is not novel. Although the western states, due to their climatic and geographic locale, may benefit most from renewable energy sources,⁸² some eastern states have enacted greater incentive provisions.⁸³

78. Section 5733.062 establishes the corporate franchise tax credit. Although the dollar amount of the credit is unlimited, no carryover provision is available. OHIO REV. CODE ANN. § 5733.062 (Baldwin 1979). Thus the credit can be lost entirely or partially if the corporation has no tax liability in the eligible year. Wisconsin has dealt with this problem by providing a refund provision for renewable energy credits. WIS. STAT. ANN. § 71.09(12)(b) (West Supp. 1979-80).

Section 5747.053 establishes the personal income tax credit. The section provides for a two-year carryforward of the unused portion of the credit but limits the total credit to \$1,000. OHIO REV. CODE ANN. § 5747.053 (Baldwin 1979). Thus the credit will only compensate for an investment up to \$10,000. Although the taxpayer expends many thousands of dollars, he or she receives only a small tax liability break for investing in the energy future. See note 79 *infra* for the economic realities of the credit.

79. Although estimates vary regarding the costs of installing a solar energy system, general figures are obtainable. For most residences, the cost of a domestic hot water system averages between \$2,500 and \$3,000. The cost of a residential space heating system depends upon the peculiar characteristics of the home. Such qualities as the amount of insulation present, slope of the roof, and southern exposure are crucial for determining cost. The average cost, however, generally ranges between \$8,000 and \$10,000. Furthermore, the cost of a hydrothermal space heating system varies between \$8,000 and \$9,000. It is also worth noting that a dwelling equipped with either a solar or hydrothermal system would still need a conventional system to back up the primary system. Telephone conversation with a representative of Basic Energy Systems, Dayton, Ohio (Jan. 9, 1980); telephone conversation with a representative of Ambient Energy Corp., Dayton, Ohio (Jan. 10, 1980). Authorities further indicate that because these energy systems use materials such as plastic, copper, and fiberglass, the costs are likely to increase.

80. OHIO REV. CODE ANN. §§ 5733.062, 5747.053 (Baldwin 1979) (sets Dec. 31, 1985 as the date for termination).

81. Section 5747.053 limits the credit to \$1,000, *id.* at § 5747.053, although such limits may inhibit the effectiveness of the credit.

82. K. Bjorge, *The Development of Geothermal Resources and the 1970 Geothermal Steam Act—Law in Search of Definition*, 46 U. COLO. L. REV. 1, 3 (1974) [hereinafter cited as *Development of Geothermal Resources*].

83. See VT. STAT. ANN. tit. 32, § 5922 (Supp. 1979) (credit limited to the lesser of

<https://ecommons.udayton.edu/udlr/vol5/iss2/13>

A second problem with corporate and personal tax credits relates to the possible high costs involved in obtaining a solar access easement.⁸⁴ The terms "purchase and installation"⁸⁵ describe the method used to calculate the total cost of the energy system and the amount of the available credit. The proposed rules promulgated by the Director of Energy do not clarify whether the tax credit is available to offset the potentially large cost of the solar access easement.⁸⁶ If uncertainty persists, litigation would be necessary to determine the scope of the terms "purchase and installation." This would delay the full and effective use of the credits.

B. Property Rights Created

1. Solar Easements

The problem of maintaining access to the sun is a major drawback to effective use of the solar resource.⁸⁷ Creating a statutory right to a solar access easement mitigates this drawback.⁸⁸ Nevertheless, problems persist that might contravene this easement scheme.

The solar easement established in H.B. 154 is voluntary between landowners.⁸⁹ Because it is voluntary, the burdened landowner may therefore simply refuse to grant the easement.⁹⁰ Hence, a solar easement compensates the landowner who has not opted for a solar energy system.⁹¹ Benefiting a party who has not elected to install a solar energy system seems contrary to the purposes of H.B. 154;⁹² however,

25% of the total cost or \$1,000); WIS. STAT. ANN. § 71.09(12)(a)(West Supp. 1979)(credit percentage varies between 8% and 30% depending upon the date of installation).

84. *Dawning of Solar Law*, *supra* note 54, at 1017.

85. OHIO REV. CODE ANN. §§ 5733.062, 5747.053 (Baldwin 1979).

86. Ohio Department of Energy Rule Nos. 1551:3-1-01 to -06 (proposed Jan. 1980). See note 23 *supra*.

The California Code clearly provides that the costs against which the credit is calculated include costs associated with the acquisition of the solar easement. CAL. REV. & TAX CODE § 17052.5(a) (West Supp. 1979).

87. See note 11 *supra*; GA. CODE ANN. § 85-412 (Supp. 1979).

88. See *Guaranteeing Solar Rights*, *supra* note 8, at 130. The Ohio Supreme Court decided long ago that an implied light or air easement founded upon necessity and convenience or prescriptive rights would not be recognized. *Mullen v. Stricker*, 19 Ohio St. 135, 143 (1869).

89. OHIO REV. CODE ANN. § 5301.63 (Page Supp. 1979).

90. Note, *A Legislative Approach to Solar Access Transferable Development Rights*, 13 NEW ENG. L. REV. 835, 844 (1978) [hereinafter cited as *Solar Access*].

91. Comment, *The Allocation of Sunlight: Solar Rights and the Prior Appropriation Doctrine*, 47 U. COLO. L. REV. 421, 433 (1976) [hereinafter cited as *Allocation of Sunlight*].

92. H.B. 154 attempts to stimulate the implementation of renewable energy systems and to reduce dependence upon fossil fuel sources.

compensation may persuade the burdened landowner to grant the solar access easement.

Commentators have offered a wide array of access plans,⁹³ but the written easement has been received most favorably.⁹⁴ The solar easement scheme under H.B. 154 affords the benefited landowner guidelines necessary to create, protect, and enforce the instrument.⁹⁵ Similar schemes have been implemented by other states,⁹⁶ but the statutes can be differentiated.⁹⁷

Due to the unique nature of sunlight and solar energy use, care should be taken in drafting a solar access easement.⁹⁸ The peculiarities of sunlight, solar collection, and efficiency dictate that the precise angle of the requisite solar rays be ascertained and recorded in the instrument.⁹⁹ Solar easements should also include a description of all light received, not just visible light.¹⁰⁰ H.B. 154's "catch all" provision¹⁰¹ does not establish standards for the drafters of the instrument. By not specifically enumerating provisions to alleviate the complexities

93. *Solar Access*, *supra* note 90, at 844. An interesting approach called transferable development rights (TDR) was set forth by the author. The TDR approach asserts that "Title to real estate is not a unitary or monolithic right, but . . . a 'bundle of individual rights' each one of which may be separated from the rest and transferred to someone else, leaving the original owner with all other rights of ownership." *Id.* at 853 (citing J. ROSE, *THE TRANSFER OF DEVELOPMENT RIGHTS—A NEW TECHNIQUE OF LAND USE REGULATION* 3 (1975)). The TDR approach could provide the flexibility needed to develop unused space within preexisting zoning laws. *Solar Access*, *supra* note 90, at 853. The TDR approach also requires extensive government regulation and control, which may inhibit its initial appeal. *Dawning of Solar Law*, *supra* note 54, at 1020.

Other commentators have suggested that the solar access right be analogized to water rights. *Allocation of Sunlight*, *supra* note 91, at 434-38; *Guaranteeing Solar Rights*, *supra* note 8, at 132-33. *But see* notes 109-23 and accompanying text *infra*.

94. *Dawning of Solar Law*, *supra* note 54, at 1015-17; *Guaranteeing Solar Rights*, *supra* note 8, at 116-18.

95. OHIO REV. CODE ANN. § 5301.63 (Page Supp. 1979).

96. *See, e.g.*, COLO. REV. STAT. § 38-32.5-102 (Supp. 1978); FLA. STAT. ANN. § 704.07 (West Supp. 1979); MINN. STAT. ANN. § 500.30 (West Supp. 1980).

97. Both the Colorado and Florida Statutes require the written solar easement to contain a description of the vertical and horizontal angles, expressed in degrees, at which the easement extends over the property burdened. COLO. REV. STAT. § 38-32.5-102(a)(Supp. 1978); FLA. STAT. ANN. § 704.07(2)(b)(West Supp. 1979).

98. *Guaranteeing Solar Rights*, *supra* note 8, at 116.

99. In Colorado the angle for efficiency has been found to be 60° above horizontal. *Allocation of Sunlight*, *supra* note 91, at 422.

100. *See* M. Eisenstadt & A. Utton, *Solar Rights and Their Effect on Solar Heating and Cooling*, 16 NAT. RESOURCES J. 363, 373-75 (1976). The authors noted that light consists of an electromagnetic spectrum, although visible light includes only a small portion of that spectrum. The solar right must include, for maximum solar effectiveness and efficiency, the entire electromagnetic spectrum. *Id.* at 374-75.

101. OHIO REV. CODE ANN. § 5301.63(E)(Page Supp. 1979). *See* text accompanying note 48 *supra* for the text of the provision.

associated with solar easements, the effectiveness of the easement is dependent upon the uncertain skill of the drafters.

2. Access to Wind Energy Sources

Although H.B. 154 purports to give preferential tax treatment to wind energy systems,¹⁰² it does not establish access to wind energy sources as it does with solar energy.¹⁰³ Wind energy access has inherent problems that H.B. 154 does not rectify.¹⁰⁴ When wind energy systems become larger and more prevalent, other problems may occur.¹⁰⁵

Although wind energy has received little statutory or case law treatment,¹⁰⁶ it remains a viable renewable energy resource with significant potential.¹⁰⁷ It is unfortunate that the General Assembly did not take the opportunity to deal with these problems by providing specific guidelines and rights for wind energy access.¹⁰⁸ This incomplete approach may hinder the overall effectiveness of the legislation.

3. Access to Hydrothermal Energy Sources

The General Assembly defined a hydrothermal energy system as "any method . . . causing a thermal exchange with the earth utilizing any water source, including ground or surface water . . ." ¹⁰⁹ The bill

102. *Id.* § 1551.20.

103. *Id.* § 5301.63.

104. Ohio, it should be recalled, does not recognize an implied easement of the air. See note 88 *supra*.

105. *Wind Energy, supra* note 9, at 1054, 1056-78. These potential problems include noise and nuisance problems, zoning restrictions relating to height and location, interference with aircraft and electronic signals, visual pollution, and building code restrictions.

106. *Id.* at 1055.

107. *Id.* at 1053.

108. *Id.* at 1088. The authors suggested that Wind Energy Conservation Systems need the creation of wind rights in order to assist in their development.

Other states have more thoroughly provided for wind energy. See *e.g.*, N.J. STAT. ANN. § 54:4-3.113(a)(West Supp. 1979-80) (defining solar energy as energy which has recently originated in the Sun and including wind gradients as groupable within solar energy). See also HAWAII REV. STAT. § 246-34.7(b)(1)(1976).

The General Assembly could have followed New Jersey's scheme and included the wind access right within the solar energy definition. The solar access easement would then also apply to wind access. Of course, the varying character of wind energy might make the creation of a wind easement more difficult. The proposed guidelines by the Director of Energy define a wind energy system as "any . . . system which extracts energy from the movement of air caused by the uneven heating of the earth from the sun." Although the rule associates the wind resource with the sun, whether wind sources will acquire the same rights as the solar resource remains to be seen. See Ohio Department of Energy Rule No. 1551:3-3-1-05 (proposed Jan. 1980).

109. OHIO REV. CODE ANN. § 1551.20(A)(Page Supp. 1979). The hydrothermal energy resource typically involves the utilization of zones of porous rock where water has collected. These zones are in close proximity to hot magma formations which pro-

ties hydrothermal energy sources to water law by giving them preferential tax treatment.¹¹⁰ Although the effect of this tax preference is uncertain, it may inhibit the development of the hydrothermal resource by making it dependent upon anachronistic statutes and court decisions that have no relation to present day technologies.¹¹¹ While hydrothermal resource ownership seems to present a difficult problem,¹¹² it is a promising resource that should not be inhibited.

The fundamental problem in ownership of the hydrothermal resource is that the resource may extend under several differently owned lands.¹¹³ The varying geological locations and compositions of the resource accentuate this problem.¹¹⁴ Because the resource typically involves both subsurface and excess surface water,¹¹⁵ Ohio water law must accommodate the problems that the hydrothermal resource will present. An appropriate accommodation will allow the resource to develop into a viable energy source.

Ohio water law divides subsurface water into two types, percolating and subterranean watercourses.¹¹⁶ Because subterranean watercourses are rarely found and identified, subsurface water is presumed to be percolating.¹¹⁷ While the surface owner can use the

duce pressurized hot water. Drilling into these zones can bring to the surface steam and hot water that can be used to generate electricity through steam turbines, or to space heat an area. *Geothermal Resource Development*, *supra* note 10, at 995.

110. OHIO REV. CODE ANN. § 1551.20(B)(C)(Page Supp. 1979).

111. *Development of Geothermal Resources*, *supra* note 79, at 24. This is true in Ohio where the relevant case law is over a century old. See notes 116 and 121 *infra*.

112. *Geothermal Resource Development*, *supra* note 10, at 993.

113. See S. Sato & T. Crocker, *Property Rights to Geothermal Resources*, 6 *ECOLOGY L.Q.* 481, 535 (1977) [hereinafter cited as *Geothermal Property Rights*].

114. *Geothermal Resource Development*, *supra* note 10, at 995-96. Briefly, the hydrothermal resource can be subdivided into four major groups. To develop a dry steam bed, which offers the cheapest alternative, a shaft is drilled into an area of fresh superheated water. This water rises under pressure up the shaft and flashes into valuable high pressure steam at the surface. Wet steam beds are lower in temperature and contain more water than dry steam beds. Disposal of excess water may present difficulties. Geopressured zones result from indirect subsurface water contact with hot magma formations. This type of zone produces water lower in temperature than other geothermal systems. These zones also contain high concentrations of toxic minerals that increase the risk of pollution. Finally, hot rock zones consist of hot rock formations with no associated water sources. These zones become functional by injecting water into the hot rock formations and utilizing the resulting steam. Although hot rock zones are the most abundant type in the United States, they are the most expensive and the least technologically feasible method. *Id.* at 996.

115. See note 114 *supra*.

116. *Frazier v. Brown*, 12 Ohio St. 294, 299 (1861). Percolating subsurface waters are those without permanent or distinct channels that percolate in mere veins from lands of one owner to lands of another. *Id.* Subterranean watercourses flow in a permanent, distinct, and well-defined channel from one land to another. *Id.*

117. *Id.* at 303.

subsurface land at his pleasure as long as the use does not interfere with the legal rights of others,¹¹⁸ percolating waters are not absolutely owned. The surface owner is afforded no legal redress for interference of the percolations by another landowner.¹¹⁹ If the surface owner can show that the subsurface waters flow in distinct and well-defined channels, then the rights of surface riparian ownership attach.¹²⁰ Thus, while a surface owner might use the hydrothermal resource below the surface, that use depends upon subsurface waters with which other landowners can interfere. This may harm the development of the hydrothermal resource by not guaranteeing it.

Hydrothermal energy systems pose difficulties with surface water disposal after the heated water or steam has been used. This used water is not considered natural surface water;¹²¹ therefore, the law governing surface water would not be applicable. Only hydrothermal heat sources near the surface could possibly come within the confines of surface water law. Excess hydrothermal water would have to be disposed to avoid interference with the legal rights of other landowners.¹²²

The development of the hydrothermal resource may be inhibited because important questions of ownership are unresolved. H.B. 154 could have explicitly provided ownership and access rights to the subsurface resource, as several commentators have suggested.¹²³ By not do-

118. *Id.* at 299 n.

119. *Logan Gas Co. v. Glasgo*, 122 Ohio St. 126, 130, 170 N.E. 874, 875 (1930).

120. Riparian ownership would entitle the surface owner to make reasonable use of the water for any purpose incidental to the enjoyment of his land that does not materially infringe upon the rights of others to make reasonable use of the waters. 3 McDERMOTT, OHIO REAL PROPERTY LAW AND PRACTICE § 29-21(A) (3rd ed. 1966).

121. *Bey v. Wright Place, Inc.*, 108 Ohio App. 10, 14, 160 N.E.2d 378, 381 (1956) (Water pumped to the surface is not surface water.).

Surface water results naturally from precipitation or springs but does not constitute a watercourse, well, lake, or pond. 3 McDERMOTT, OHIO REAL PROPERTY LAW AND PRACTICE § 29-12(A) (3rd ed. 1966).

Where surface water has accumulated, the owner of the lower land owes a natural easement to the owner of the upper land for the natural flow of the water. *Butler v. Peck*, 16 Ohio St. 334, 343 (1865).

122. See text accompanying note 118 *supra*.

123. In *Geothermal Property Rights*, *supra* note 113, the authors proposed the correlative rights doctrine. Such a scheme apportions the use of the underground resource among the overlying landowners. The authors noted that such an approach is unworkable because the apportionment of the geothermal resource would be inefficient and extremely difficult. *Id.* at 539-46. The authors favorably viewed an appropriation system based on beneficial use. This approach would require the government to administer the use as to time and amount. *Id.* at 547-51.

Another approach would classify the geothermal resource as a mineral. This would permit the inclusion of the resource in the mineral estate of the property and thus afford greater rights to the surface owner or the owner of the mineral estate. The geothermal resource is, however, difficult to classify as a mineral due to its varying

ing so, the General Assembly has tied the viability of the resource to a body of law that may impede its effectiveness.

IV. CONCLUSION

H.B. 154 was enacted as a response to national and state energy problems. While many states have formulated similar legislation, the bill did not adopt the most effective provisions from those enactments.

The tax incentives granted by H.B. 154 may not be substantial enough to stimulate a commitment to solar, wind, and hydrothermal energy sources. Although the problem of revenue loss is real, continued reliance on fossil fuel sources must be reduced in the near future. The businesses and citizenry of Ohio must be persuaded and stimulated to adopt renewable energy systems for themselves. The inadequacy of the incentives may undermine the stimulus that H.B. 154 seeks to create.

H.B. 154 attempts to ease the access problem to renewable energy sources. The creation of a solar access easement is a positive step. The statute contains the essential guidelines and protections necessary to make solar access easements a permanent aspect of Ohio property law. The peculiar nature of solar energy dictates, however, that a certain degree of care be taken when writing a solar access easement. Unfortunately, the bill leaves this care to the discretion of the drafter of the solar easement.

H.B. 154 fails to establish sufficient access to wind and hydrothermal energy sources. While wind law is presently embryonic, legislation should not perpetuate that condition. H.B. 154 has insufficiently described how access to wind sources should be considered or established. The hydrothermal resource has also been given inadequate treatment by H.B. 154. Linking hydrothermal energy sources to water rights law can only serve to inhibit and impede the development of this potentially valuable energy resource.

Scott Edward Miller

Code Sections Affected: 1551.20, 4933.31-.32, 5301.63,
 5709.53, 5733.062, 5739.02(B)(13),
 .02(B)(26), 5747.053.

character. *Geothermal Resource Development*, *supra* note 10, at 1001-02.

Geothermal resources could also be declared to be "of their own kind." This would free the geothermal industry from the confines of water or mining law and allow the state legislatures and courts to develop a new body of law. *Development of Geothermal Resources*, *supra* note 82, at 24.

Effective Date: August 14, 1979.

Sponsors: Rocco, et al.(H)
Nabokowski, et al.(S).

Committees: Ways & Means (H),
Energy & Public Utilities (S).

