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Scott F. Stromberg

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SCOTT F. STROMBERG*

Has the Sun Set on Solar Rights? Examining the Practicality of the Solar Rights Acts

ABSTRACT

The New Mexico and Wyoming Solar Rights Acts establish a property right for a solar user to access and use solar energy for the purposes of encouraging domestic solar energy. While a solar right may provide more protection to solar users than traditional common law or statutes, the Acts' ambiguous statutory language may result in litigation that discourages the development of domestic solar energy. To avoid conflicts between solar users and adjacent property owners, the statutory language that establishes the elements of a solar right, as well as the extent and limitations of that right, must be clarified. In addition to providing a model Solar Rights Act, this article provides concrete suggestions to amend the two current Solar Rights Acts so that they can provide a workable framework to protect solar rights, acknowledge the interest of adjacent property owners, and encourage solar use by minimizing litigation.

I. INTRODUCTION

For more than three decades, the need to develop alternative energies has been growing. The United States has and continues to experience the social, economic, and environmental effects of fossil fuel dependence: dramatic fluctuations in oil prices have drastically affected American consumers through energy crises,¹ and a consensus of world leaders and scientists acknowledges the threats of climate change.² One

* Scott F. Stromberg is a J.D. candidate at the University of New Mexico School of Law. He would like to thank his wife, Daniela Aceves-Stromberg, for her support and sacrifice. He would also like to thank his father, Peter G. Stromberg, for his interest in solar energy, his calculations, and this article's illustrations. He would also like to thank UNM law professor Reed Benson and fellow student Ken Rooney for their assistance with this article.

1. See, e.g., TRAVIS BRADFORD, SOLAR REVOLUTION: THE ECONOMIC TRANSFORMATION OF THE GLOBAL ENERGY INDUSTRY preface 37 (2006) (“[C]onstraints imposed by OPEC in the early 70s caused massive price shocks in the West, creating significant economic disruption. Today, OPEC still controls about 44 percent of the world’s oil production and about 66 percent of its reserves.”).

2. The Intergovernmental Panel on Climate Change projects, among other effects, an increase in world temperature and sea-level rise, more frequent heat waves, and increased tropical events in intensity and frequency. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT 45-46.

part of the solution to fossil fuel dependence in the United States lies in the development of domestic—or household—solar energy.

In order to encourage the development of domestic solar energy, federal and state governments have created monetary incentives for installing solar collectors³ and passed laws that protect a solar user's access to solar energy.⁴ Although states have applied various legal approaches to encourage domestic solar energy use—ranging from reliance on common law⁵ to statutory recognition of express solar easements⁶ and establishing a property right in a line-of-sight between a solar collector and the sun⁷—these approaches will ultimately fail in encouraging domestic solar energy unless they clearly and unambiguously recognize a solar user's right to access solar energy.

Unfortunately, the common law and express easements adopted in other states have been shown to offer little protection to solar users who require access to solar energy. Some courts have been unwilling to protect access to solar energy through common law legal theories,⁸ due in part to the limitation that solar access will place on the development of adjacent properties.⁹ Additionally, statutes recognizing express ease-

3. See Database of State Incentives for Renewables & Efficiency (DSIRE), <http://www.dsireusa.org> (last visited May 29, 2010) (listing the federal and state incentives for solar energy).

4. See, e.g., CAL. CIV. CODE § 801 (2007); COLO. REV. STAT. §§ 38-32.5-100.3 to -103 (2007); WIS. STAT. ANN. § 700.35 (2001).

5. See, e.g., *Prah v. Maretti*, 321 N.W.2d 182, 191 (Wis. 1982) (finding that a private nuisance claim may exist against an adjacent landowner who unreasonably obstructs access to sunlight). But see *Sher v. Leiderman*, 181 Cal. App. 3d 867, 879–80 (1986) (finding that California does not recognize a claim of private nuisance for obstructing sunlight).

6. An express solar easement is a right that one landowner has over an adjacent landowner to access unobstructed sunlight and is obtained through a covenant, grant, or an agreement with the adjacent landowner. Tawney L. Alvarez, Comment, *Don't Take My Sunshine Away: Right-to-Light and Solar Energy in the Twenty-First Century*, 28 PACE L. REV. 535, 538–40 (2008). For examples of statutorily recognized expressed solar easements, see CAL. CIV. CODE § 801 (2007); COLO. REV. STAT. §§ 38-32.5-100.3 to -103 (2007); WIS. STAT. ANN. § 700.35 (2001).

7. See, e.g., N.M. STAT. § 47-3-1 to -5 (1978); WYO. STAT. ANN. §§ 34-22-101 to -106 (1981).

8. In some cases, courts have already rejected prescriptive and implied easements as a protection of solar energy access, while other courts have rejected claims of a private nuisance to protect solar energy access. See, e.g., *O'Neil v. Brown*, 609 N.E.2d 835, 841 (1993) (rejecting a claim that prescriptive easements could be created under the Illinois Solar Energy Act); *Sher*, 181 Cal. App. 3d at 875, 879–80 (finding that California does not recognize a claim of private nuisance for obstructing sunlight); *Zipperer v. County of Santa Clara*, 35 Cal. Rptr. 3d 487, 489 (2005).

9. See JAMES W. ELY, JR. & JON W. BRUCE, *THE LAW OF EASEMENTS AND LICENSES IN LAND* § 12:4 (2009). See also *Sher*, 181 Cal. App. 3d at 879 (“A landowner's right to use his property lawfully to meet his legitimate needs is a fundamental precept of a free society.”).

ments provide a framework for solar users and adjacent property owners to create a solar easement through negotiations but these statutes do not generally create express solar easements themselves.¹⁰ By relegating the creation of a solar easement to negotiation between interested parties, access to solar energy is only protected when there is an express agreement between the solar user and the burdened property owner. These agreements may be quite anomalous because the burdened property owner often has little incentive to place a solar easement against his or her own property.¹¹ The failure of common law and express easements to protect solar access leaves the solar user without a right to access solar energy and, thereby, discourages its implementation.

New Mexico and Wyoming have attempted to address the shortfalls of the common law and express easements through legislation aimed at creating property rights in accessing solar energy. These two states enacted Solar Rights Acts¹² (SRA) that protect solar users' access and use of solar energy by recognizing them as a property right known as a solar right. While these SRAs have not yet been litigated, they assert a policy favoring the development of domestic solar energy use and attempt to balance the interests of solar users desiring unobstructed solar energy access against the interest of adjacent property owners whose property rights may be affected by the installation of solar collectors. New Mexico's and Wyoming's attempts to protect solar access by creating a property right to access solar energy is a novel one, but one that needs significant revision to truly succeed in encouraging solar development.

The current SRAs need to be revised with clear language because these acts define the relationship between the solar user and the burdened property owner. Although the use of solar energy should theoretically be encouraged under the SRAs, the ambiguous drafting could lead to the claiming of solar rights that purposefully restrict developments on neighboring property or, alternatively, legal challenges by burdened property owners who wish to extinguish a solar right burdening their property. With their ambiguous language, these SRAs may only promote litigation that will make solar energy more expensive, cumbersome, and

10. See JAMES C. SMITH & JACQUELINE P. HAND, *NEIGHBORING PROPERTY OWNERS* § 5:5 (2009).

11. SMITH & HAND, *supra* note 10; Alvarez, *supra* note 6, at 540. See also Sara C. Bronin, *Solar Rights*, 89 B.U. L. REV. 1217, 1221, 1229–30 (2009). Although a burdened property owner may consider setting a high price for a solar easement, the burdened property owner would also consider the limitations that the easement places on property development and the effect that the easement may have on the future price or desirability of the property. ELY & BRUCE, *supra* note 9; Alvarez, *supra* note 6, at 540.

12. N.M. STAT. § 47-3-1 to -5 (1978); WYO. STAT. ANN. §§ 34-22-101 to -106 (1981).

less attractive to investment. These statutes, therefore, must be updated to clearly define the necessary elements of a solar right and the extent of the solar right in order to minimize legal disputes.¹³

This article begins by providing a brief overview of the SRAs legal framework with illustrative examples of solar rights in practice. The article then examines the strengths and weaknesses of the New Mexico and Wyoming SRAs by comparing: (1) the elements necessary to establish a solar right, and (2) the extent, or limitations, of that right. Within this analysis, the article highlights the ambiguous language found within the SRAs and suggests that domestic solar energy development will only be encouraged if these ambiguities are replaced with clear and definite language. The article argues that the SRAs need an unambiguous definition of a solar collector, that a minimum British thermal unit (BTU) standard should apply to all solar collectors, that the extent of a local government's authority should be statutorily circumscribed, that beneficial use should be removed from the SRAs' framework, and that there should be a statutory valuation for solar rights. This article concludes that, once these areas are clarified, future SRAs will provide more protection to solar energy users and more effectively balance the interests of solar users with adjacent landowners while adopting a policy that encourages domestic solar energy.

II. AN OVERVIEW OF THE SOLAR RIGHT ACTS

To understand the problems that arise from the ambiguities within the language of the SRAs, it is necessary to understand the general framework of the SRAs and the basic attributes of a solar right. After examining this framework and the general characteristics of a solar right under the New Mexico and Wyoming SRAs, this article provides concrete examples of how solar rights may affect neighboring property owners.

A. The Legal Framework of the Solar Rights Acts

New Mexico and Wyoming adopted SRAs that recognize solar rights in a conceptually similar manner; however, there are substantial differences in the framework of the two statutes. In order to emphasize the similarities of the New Mexico Solar Rights Act (NMSRA) and the Wyoming Solar Rights Act (WYSRA), an overview of each statute's

13. This article is not the first to criticize the New Mexico Solar Rights Act for its ambiguous statutory language. See generally *Access to Sunlight: New Mexico's Solar Right's Act*, 19 NAT. RESOURCES J. 957 (1979); Karin Hillhouse & William Hillhouse, *New Mexico's Solar Rights Act: A Cloud Over Solar Rights*, 1 SOLAR L. REP. 751 (1980).

framework is provided. The NMSRA, along with New Mexico's Solar Recordation Act (Recordation Act), is examined first, to describe the basic elements of a solar right, and then the WYSRA is compared to the NMSRA to emphasize the differences between the statutes.

Amidst the oil crisis in 1977, the State of New Mexico passed the NMSRA, recognizing the economic benefits that solar energy can provide to the state and that the research, development, and construction of solar devices should be encouraged.¹⁴ By passing the NMSRA, New Mexico adopted the principles of beneficial use and prior appropriation¹⁵ from western water law and applied them to disputes over solar energy.¹⁶ New Mexico also became the first state in the nation to recognize a property right to access and use solar energy based on water law principles; such a property right is known as a "solar right."¹⁷

In recognizing a solar right, the NMSRA defines all the elements necessary to establish a solar right and the extent and limitations of that right. The act begins with a declaration that the construction and use of solar devices should be encouraged¹⁸ and defines what structures qualify as a solar collector under the Act.¹⁹ The Act then recognizes a property right to an "unobstructed line of sight" between the solar collector and the sun,²⁰ as well as a right "to use the natural resource of solar energy."²¹ The NMSRA then acknowledges that the concepts of "beneficial use" and "prior appropriation" should be used to regulate disputes over the use of solar energy.²² Finally, the NMSRA provides for the transferability of a solar right between the solar user and subsequent owners of the property,²³ protection for previously vested solar rights,²⁴ and a general grant

14. Solar Rights Act, 1977 N.M. Laws page nos. 544–46 (codified at N.M. STAT. § 47-3-1 to -5 (1978)).

15. The doctrine of prior appropriation is the rule that the earliest users of water on a waterway have a right to take, or appropriate, all the water they can use before anyone else establishes a right to it. BLACK'S LAW DICTIONARY 1231 (8th ed. 2004).

16. Vernon N. Kerr, *New Mexico's Solar Rights Act: The Meaning of the Statute*, 1 SOLAR L. REP. 737, 742 (1980) (one of the NMSRA's authors). The Solar Rights Act was heavily influenced by the unsigned student piece and proposals of Mary White. *See id.* at 739; *The Allocation of Sunlight: Solar Rights and the Prior Appropriation Doctrine*, 47 U. COLO. L. REV. 421 (1976) (advocating the application of western water law's prior appropriation doctrine to solar rights).

17. *See* N.M. STAT. § 47-3-4(A)(1978).

18. *Id.* § 47-3-2.

19. *Id.* § 47-3-3(A).

20. *Id.* § 47-3-3(B).

21. *Id.* § 47-3-4(A).

22. *Id.* § 47-3-4(B) (1978).

23. N.M. STAT. § 47-3-4(B)(3) (1978). Transferability of a solar right is also governed by section 10 of the Solar Recordation Act under New Mexico law. *See infra* note 29.

24. N.M. STAT. § 47-3-5 (1978).

of power to local authorities to establish permit systems for the use of solar energy.²⁵

However, the original NMSRA did not provide a method by which solar users could claim and record their solar rights. Thus, in 1983, New Mexico adopted the Recordation Act²⁶ to establish a framework for solar users in claiming and recording solar rights under the NMSRA.²⁷ In addition, the Recordation Act specifies how a potential solar user must provide notice to adjacent property owners who would be affected by the establishment of a solar right²⁸ and how a solar right may be transferred between property owners—whether they were subsequent to the solar user or adjacent property owners.²⁹ Furthermore, the Recordation Act delegates power to local authorities to regulate how a potential solar user may claim a solar right.³⁰

Only one other state, Wyoming, has adopted a statutory framework similar to the NMSRA. In 1981, Wyoming adopted its own Solar Rights Act,³¹ creating a solar right for solar energy users.³² Like the NMSRA, the WYSRA provides that a solar right is a right to access and a right to use solar energy.³³ Although the WYSRA does not provide any declarations of policy like the NMSRA,³⁴ it defines a solar collector, adopts the western water law concepts of beneficial use and prior appropriation, and provides solar users a way to record the solar right.³⁵ The WYSRA also allows a solar right to be transferred between property owners³⁶ and grants local authorities regulatory power,³⁷ but protection for previously established solar users only exists if the solar users apply for a permit from the local authorities pursuant to the WYSRA.³⁸

25. *Id.* § 47-3-4(C).

26. Solar Recordation Act, 1983 N.M. Laws page nos. 1217–23 (codified at N.M. STAT. §§ 47-3-6 to -12 (1978)).

27. N.M. STAT. §§ 47-3-8 to -9 (1978).

28. *Id.* § 47-3-9.

29. *See id.* § 47-3-10. Although the New Mexico Solar Rights Act provides for the transferability of a solar right under section 47-3-4(B)(3), the Solar Recordation Act specifically addresses how a solar right transfers between subsequent property owners, the location of the solar right, and the possibility of extinguishing a solar right through contractual agreement. *See id.*

30. N.M. STAT. § 47-3-11 (1978).

31. Solar Rights Act, 1981 Wyo. Sess. Laws page nos. 249–51 (codified at WYO. STAT. ANN. §§ 34-22-101 to -106 (1981)).

32. WYO. STAT. ANN. §§ 34-22-102(a)(ii), -103(a) (1981).

33. *Id.*

34. *See* N.M. STAT. § 47-3-2 (1978).

35. WYO. STAT. ANN. §§ 34-22-102, -103(b)(i)–(ii), -106 (1981).

36. *Id.* § 34-22-103(c).

37. *Id.* § 34-22-105.

38. *Id.* § 34-22-105(b)(vi) (1981).

Uniquely, the WYSRA allows a solar right to be abandoned by non-use. The WYSRA states that solar collectors should not unreasonably restrict neighboring property and requires the solar user to apply the solar collector to a beneficial use within two years after a solar permit is granted.³⁹

B. The Solar Right Acts in Practice

While these statutory approaches apply the legal principles of western water law to determine solar rights, comparing the realities of the sun's path across the sky with the statutory language is also necessary to determine the physical limitations of a solar right. As the sun moves from its lowest point in the sky relative to the earth during the winter solstice to its highest point during the summer solstice, the window of solar energy that can be used by a solar collector changes accordingly. Because there is a legal right to a line-of-sight between the sun and the solar collectors under the SRAs, the line-of-sight from the lowest edge of a solar collector to the sun during the winter solstice would be used to establish the lowest extreme of a solar right.

For example, if there was a Trombe wall⁴⁰ attached to a residential home, the line of sight from the bottom of the Trombe wall to the sun would extend over the neighboring property. Because the sun is at a lower angle in the sky during the winter months, the winter line-of-sight would be the most burdensome on the adjacent property.

39. *Id.* §§ 34-22-104(b), (c), -105(b)(vi).

40. A Trombe wall is a wall designed to capture solar radiation so the heat radiates into the structure to which it is attached. See RENEWABLE ENERGY: POWER FOR A SUSTAINABLE FUTURE 34-35 (Godfrey Boyle ed., 2d ed. 2004) [hereinafter RENEWABLE ENERGY].

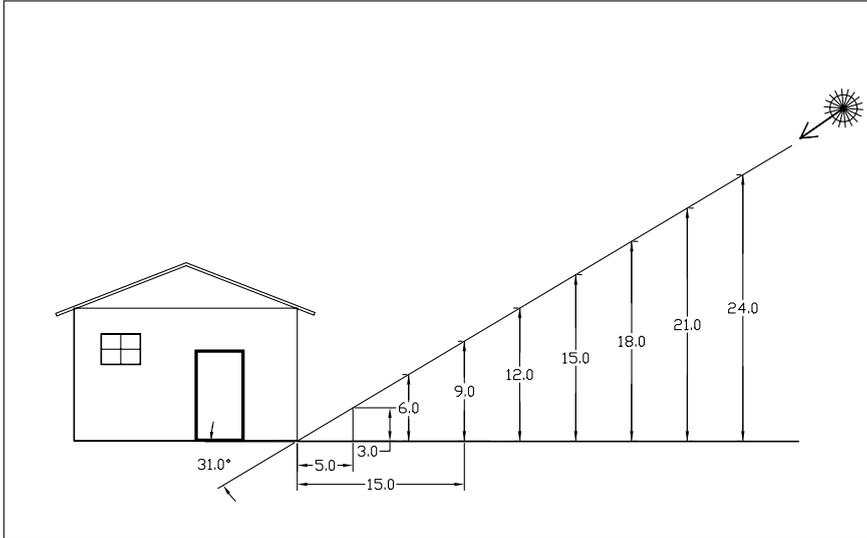


FIGURE 1: A SOLAR RIGHT AND RESTRICTIONS ON ADJACENT PROPERTY⁴¹

TABLE 1: THE MAXIMUM BUILDING HEIGHT ON PROPERTY BURDENED BY A SOLAR RIGHT

Distance from Wall/Property Line (ft.)	Maximum Building Height (ft.)
5	3
10	6
15	9
20	12
25	15
30	18
35	21
40	24

41. All figures in this article assume that latitude of the property is 35.0 degrees North Latitude, which is the approximate latitude of Albuquerque, New Mexico, and that the time is 12:00 noon on the winter solstice. The declination (δ), or the position of the sun at solar noon relative to the equator's plane, using n as the day of the year, was calculated using: $\delta = 23.45 \sin [360((284 + n)/365)]$. JOHN A. DUFFIE & WILLIAM A. BECKMAN, SOLAR ENERGY THERMAL PROCESSES 14-15 (1974). The zenith angle (θ) is the angle between the

In Figure 1 (above/below), the solar user’s home has a hypothetical Trombe wall attached to the side of the building. A line from the base of the building extending to the sun indicates a line-of-sight between the bottom of the Trombe wall and the sun at noon on winter solstice. On the right side of the diagram, below the line-of-sight, are vertical bars indicating the maximum height of a structure that a burdened property owner (i.e., an owner whose land is burdened by an established solar right) may build without obstructing the solar user’s solar right. Table 1 (above/below) provides, under the same conditions as Figure 1, the maximum building height of a burdened property owner’s structures as the distance from the solar user’s home increases. While the use of a Trombe wall could be considered one of the most restrictive on adjacent property owners under these conditions, this situation could occur whenever a solar structure extends to the base of a building. However,

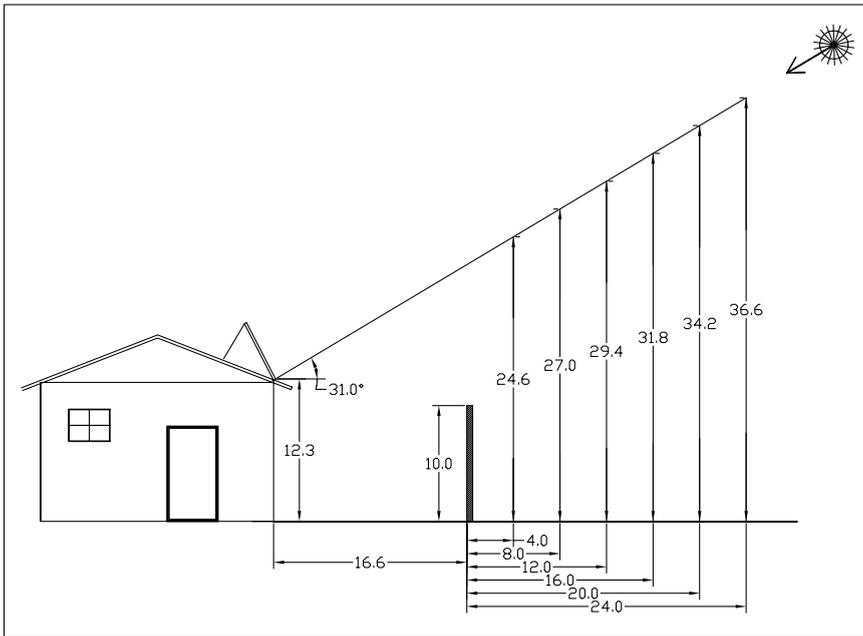


FIGURE 2: A SOLAR PANEL’S RESTRICTIONS ON ADJACENT PROPERTY

beam from the sun and the vertical and, with ϕ representing the latitude (north positive) and ω as the hour angle (solar noon being zero, each hour equaling 15 degrees of longitude with mornings positive and afternoons negative), the zenith angle is calculated using: $\cos \theta = \sin (\delta) \sin (\phi) + \cos (\delta) \cos (\phi) \cos (\omega)$. *Id.* at 14–16.

under different conditions, even the use of solar panels installed on top of a roof could affect a neighboring property owner.

While the line-of-sight in Figure 2 (above/below) does not restrict the burdened property owner from building a structure just over 24 1/2 feet, if the solar collectors were installed on a home located closer to the property line—as indicated by the black wall in the middle of the illustration—the solar right’s restrictions could be used to prevent the burdened property owner from developing a second story on the property.⁴² As the figures demonstrate, the establishment of a solar right in a residential area could drastically affect the ability of a property owner to develop an adjacent property, and, as the use of domestic solar increases, the likelihood of conflicts between neighboring property owners will also increase.

Because of this potential for conflict between neighboring property owners created by the statutory framework, interpretation of the SRAs’ language is paramount. This article, therefore, turns to the text of the SRAs—specifically, the elements necessary to establish a solar right and the limitations or extent of those rights—in order to compare the Acts’ statutory language, highlight each statute’s ambiguities, and suggest ways to improve the language in both.

III. ESTABLISHING A SOLAR RIGHT

Under the NMSRA and the WYSRA, a solar right is composed of two elements: a right to have access to sunlight and a right to use solar radiation. If either of these two aspects of a solar right is ambiguous, the possibility that solar users could claim a solar right for structures, like windows or skylights, and untraditional uses, like the conveyance of light, increases. Ambiguities within the statutes may also undermine potential and existing solar rights by creating uncertainty as to what structures or uses will be recognized by the courts when the acts are litigated.

The NMSRA establishes that a solar right is the right to “an unobstructed line-of-sight path between the solar collector and the sun, which permits radiation from the sun to impinge directly on the solar collector,” as well as a property right “to use the natural resource of solar energy.”⁴³ Similarly, the WYSRA recognizes the right to access solar energy, adopting language almost identical to the NMSRA’s “unobstructed line-of-sight” provision.⁴⁴ The WYSRA also recognizes that the use of solar energy is a property right.⁴⁵ Because both statutes establish that a solar

42. See discussion *infra* Part IV.B.

43. N.M. STAT. §§ 47-3-3(B), -4(A) (1978).

44. See WYO. STAT. ANN. § 34-22-102(a)(ii) (1981).

45. See *id.* § 34-22-103(a).

right is a right to access and a right to use solar energy, these two aspects must be analyzed to determine the scope of a solar right under each SRA.

A. Defining a Solar Collector

A workable Solar Rights Act needs to have a clear definition of a solar collector that includes explicitly recognized uses and limitations. Both the NMSRA and the WYSRA attempt to define “solar collector” for the purpose of limiting what structures qualify under the SRAs. While the WYSRA is explicit in defining solar collectors and leaves little room for interpretation, the NMSRA fails to provide clear and unambiguous language. Under the broad language of the NMSRA, little guidance is provided as to what should be considered a solar collector, and, in some circumstances, structures like windows could arguably qualify. The NMSRA’s broad definition of a solar collector is unclear, leaving the statute open to litigation by those attempting to inhibit a neighboring property development or those attempting to extinguish a neighbor’s established solar right.

Under the NMSRA or the WYSRA, a solar collector must have access to the sun and be used in order for a solar user to establish a solar right. The New Mexico Legislature attempted to define what structures constitute a solar collector in section 47-3-3(A) of the NMSRA, stating that a solar collector is:

[A] device, substance, or element, or a combination of devices, substances, or elements that relies upon sunshine as an energy source and that is capable of collecting not less than twenty-five thousand British thermal units on a clear winter solstice day or that is used for the conveyance of light to the interior of a building. The term also includes any device, substance or element that collects solar energy for use in:

- (1) the heating or cooling of a structure or building;
- (2) the heating or pumping of water;
- (3) industrial, commercial or agricultural processes; or
- (4) the generation of electricity.

A solar collector may be used for purposes in addition to the collection of solar energy. These uses include, but are not limited to, serving as a structural member or part of a roof or building or structure and serving as a window or wall. . . .⁴⁶

The NMSRA’s broad definition of solar collector was intended to include passive and active solar energy systems,⁴⁷ however, there is little gui-

46. N.M. STAT. § 47-3-3(A) (1978).

47. Kerr, *supra* note 16, at 743.

dance as to what should be considered a solar collector under the broad language of the statute. To further complicate the definition of a solar collector, the terms “device,” “substance,” and “element” are undefined. Yet, these terms are not the only problem within the NMSRA’s definition of a solar collector. The statute itself may be reasonably construed in multiple ways, with each interpretation significantly redefining what a solar collector can mean.

The first provision states that a solar collector “relies upon sunshine as an energy source and that is capable of collecting not less than 25,000 BTUs on a clear winter solstice day or that is used for the conveyance of light to the interior of a building.”⁴⁸ This language makes it unclear if structures that only convey light into a building, such as windows and skylights, are solar collectors under the NMSRA.

The language of this first provision suggests that a solar collector needs to rely upon sunlight as an energy source and collect 25,000 BTUs under the statutory conditions or that a collector *only* needs to convey light into a structure. While the first interpretation, requiring reliance on solar energy and a capability of collecting 25,000 BTUs, covers photovoltaic solar panels,⁴⁹ thermal water heaters,⁵⁰ and passive solar structures (such as Trombe walls), the second recognizes a solar collector as a device that conveys light into the interior of a building.

Alternatively, this provision may be construed as requiring a solar collector to rely on sunshine as an energy source. Although the definition of an energy source is not supplied in the NMSRA, other New Mexico statutes’ definitions of energy sources include solar light and solar heat.⁵¹ Hence, the provision could be read as meaning that a solar collector that conveys sunlight and relies upon sunshine as an energy source needs to convey light into a structure while relying on sunlight for solar light *or* that it needs to rely on sunlight to convey solar heat into a structure—allowing windows, skylights, and greenhouses to also qualify as solar collectors. Because of the language in the statute, the first provision of the NMSRA creates two separate categories of recognized solar collectors: those solar collectors that collect solar energy and those that convey light into the interior of a structure.

Solar collectors capable of collecting 25,000 BTUs of solar energy must be of a certain physical size in order to collect such quantities of

48. N.M. STAT. § 47-3-3(A) (1978).

49. Photovoltaic solar panels are panels of photovoltaic cells that convert solar energy directly into electricity. RENEWABLE ENERGY, *supra* note 40, at 66.

50. Thermal water heaters are panels that use the sun’s radiation to heat water for domestic household use. *Id.* at 19–20.

51. See Renewable Energy Production Tax Credit, N.M. STAT. §§ 7-2-18.18(F)(3)(a), (b) (1978).

energy. However, solar collectors that only convey light into a building could be of any size because the statute does not mandate that they collect a minimum quantity of solar energy. Therefore, a conveyor of light of any size could be used to establish a solar right, meaning, in the most extreme circumstances, a property owner could use the NMSRA to claim that a south-facing window was a solar collector and obtain a solar right that encroached upon his neighbor's property.

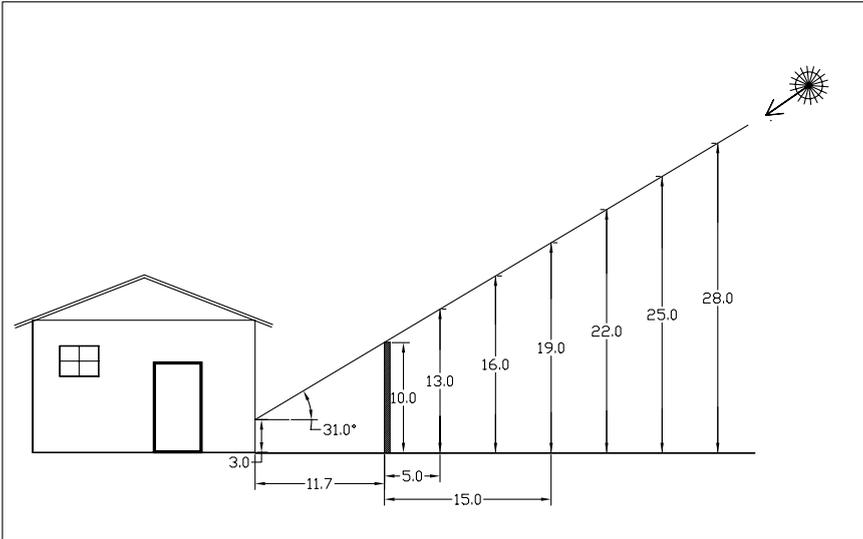


FIGURE 3: RESTRICTIONS ON ADJACENT PROPERTY USING A WINDOW AS A SOLAR COLLECTOR⁵²

Because the minimum quantity of light conveyed or the amount of solar energy collected is not clearly established for solar collectors that convey light, a south facing window could qualify as a solar collect—even if it was a small, opaque, accent light—as long as it conveyed light into the home. While only a small solar right would attach to the window due to its size, that solar right is nonetheless a property right, which could not be impinged by a neighbor. This right, though only a small solar right, could prohibit the development of a neighboring lot.

Conversely, a property owner burdened by or threatened by a potential solar right has the opportunity to challenge the establishment of a

52. Figure 3 assumes that a window three feet off of the ground on a solar user's home qualifies as a solar collector. In the middle of the figure is a 10-foot wall on the property line, and on the right-hand side are the height restrictions placed on the burdened property.

solar right upon any of the grounds mentioned above, delaying a solar user's solar right through continuous litigation. For example, a burdened property owner could argue that a solar collector that conveys light should also be capable of collecting 25,000 BTUs or that the conveyor needs to rely on solar heat as well as light. Such litigation could drastically increase the cost of a solar right, with the threat of litigation discouraging other potential solar users from installing a solar collector on their property.

Although the first sentence of NMSRA section 47-3-3(A) likely recognizes and protects devices, elements, or structures that only convey light into a building, the second sentence further complicates the definition. This provision expands the definition of a solar collector by stating that "[t]he term [solar collector] also includes any device, substance or element that collects solar energy" for regulating a structure's temperature, heating or pumping water, generating electricity, or the use of solar energy in industrial, commercial, or agricultural processes.⁵³

It is unclear from the statute's language whether this second sentence was intended to create a third category of solar collector or whether it modifies one or both of the previous categories.⁵⁴ This determination is important because it either: (1) expands the broad definition of solar collector to include a third category of device; or (2) limits the two categories of a solar collector by requiring certain statutory uses of solar collectors. If a third category is created, then a solar collector must collect 25,000 BTUs, convey light into the interior of a building, or be used to collect solar energy for the statutory uses. If this provision limits the categories of solar collector, it would require a collector or a conveyor to regulate a structure's temperature, heat or pump water, generate electricity, or use solar energy in industrial, commercial, or agricultural processes. Although either interpretation is reasonable, the less likely interpretation is that the language creates a third category of solar collector.

If the definition were construed to create a new category of solar collectors, the statute would fail to establish how these collectors would apply solar energy to a use. By failing to establish uses for a solar collector, any solar structure that simply collected 25,000 BTUs could be recognized as a solar collector under the statute. An individual could then build a solar oven or a greenhouse outside and apply for a solar right, even though the 25,000 BTUs collected were not being used to heat or light the inside of a home.

53. N.M. STAT. § 47-3-3 (1978).

54. See Kerr, *supra* note 16, at 743 (recognizing that sections 47-3-3(A)(1)-(4) may "vitalize" the BTU standard).

Alternatively, section 47-3-3(A) can be construed by reading the second sentence as modifying only collectors, not as providing for a third category of solar collectors. The language, “[t]he term also includes,”⁵⁵ could mean the term solar collector, which includes a reliance on sunshine as an energy source and a capability of collecting 25,000 BTUs, also includes the use of solar energy in heating, cooling, and generating electricity.

Statutory history supports the contention that the second provision only modifies a solar collector reliant on sunshine for energy that collects 25,000 BTUs because, prior to 2007, there was no provision recognizing a solar collector that conveyed light into the interior of a building.⁵⁶ The pre-2007 statute stated that a solar collector meant “any device or combination of devices or elements which rely upon sunshine as an energy source, which are capable of collecting not less than 25,000 BTUs on a clear winter solstice day. The term also includes any substance or device which collects solar energy” for statutory uses.⁵⁷

A look at the statutory structure and subsequent history, however, does not support the interpretation that a solar collector that conveys light into a structure must also be applied to one of the statutory uses. The first sentence of section 47-3-3 divides solar collectors into two classifications by their functions: those that are capable of collecting 25,000 BTUs and those that convey light into a structure. The language in the second sentence states that “any device, substance or element that *collects* solar energy” must use solar energy for one of the statutory uses.⁵⁸ Because the language of the second sentence is limited to collecting solar energy, these uses are inapplicable to devices that convey light. This structure infers that the legislature would have been aware of the language requiring the collection of solar energy, and, by amending the statute in 2007 to include a conveyor of light, it did not intend to apply the use restrictions to all solar collectors.⁵⁹

Due to the ambiguity of the statute, section 47-3-3 of the NMSRA could be interpreted in multiple ways. However, it is likely that two types of solar collectors would be recognized: solar collectors that rely on

55. N.M. STAT. § 47-3-3(A) (1978).

56. Kerr, *supra* note 16, at 743 (“Beneficial use was intended to include not only collectors for heating, but other useful solar devices, as well as passive solar design. The definition of solar collector therefore includes [the language of NMSRA, section 47-3-3(A)(1)–(4)].”).

57. Solar Rights Act, 1977 N.M. Laws page nos. 544–46 (codified at N.M. STAT. § 47-3-1 to -5 (1978)).

58. N.M. STAT. § 47-3-3(A) (1978) (emphasis added).

59. Solar Rights Act, 1977 N.M. Laws page nos. 544–46 (codified at N.M. STAT. § 47-3-1 to -5 (1978)).

solar energy, are capable of collecting 25,000 BTUs, and applied to one of the uses under section 47-3-3(A)(1)–(4); and solar collectors that convey sunlight into the interior of a building.

Many of the NMSRA's statutory pitfalls are avoided by the WYSRA because there is little ambiguity about what constitutes a solar collector in its language. The WYSRA designates solar collectors as specific structures that must be a part of or attached to a building and which are capable of collecting, storing, or transmitting 25,000 BTUs on a clear winter solstice day.⁶⁰ These structures must heat water, heat the structure to which the collector is attached, or convert the solar energy into electricity.⁶¹ While a court may have to decide what "massive structural element[s] designed to collect solar energy and transmit it to internal spaces for heating"⁶² qualify as solar collectors, this ambiguity could be easily clarified by legislative amendments. Notwithstanding this singular ambiguity, the statute avoids NMSRA's complications and ambiguities by recognizing specific structures with stated requirements for their capabilities and use.

To improve the NMSRA, the New Mexico Legislature should clarify the definition of a solar collector by adopting language similar to that of the WYSRA. By adopting minimum BTU standards and specific structures, the NMSRA would protect a solar user by ensuring each structure is statutorily recognized as a solar collector. This provision would also protect the development on adjacent property because small structures would not be recognized as solar collectors and, therefore, could not impede development. The WYSRA, on the other hand, should revise its "massive structural element" provision by eliminating the qualifying language "massive" and by adding language allowing the conversion of solar energy into electricity. By adopting these recommendations, the definition of solar collector is clarified for the solar users and adjacent property owners and protects the interests of both.

B. Beneficial Use in Establishing a Solar Right

The solar property rights of New Mexico and Wyoming are based partly on the water law principle of beneficial use, as both SRAs apply the concept of "beneficial use" to define the extent of a solar property right. While beneficial use is not completely defined by statute, caselaw, or constitutional provisions, the concept of beneficial use is recognized

60. WYO. STAT. ANN. § 34-22-102(a)(i) (1981).

61. *Id.* § 34-22-102(a)(i)(A)–(F).

62. *Id.* § 34-22-102(a)(i)(F).

by these authorities.⁶³ In water law, beneficial use is a flexible principle that changes with the values of society.⁶⁴ Both the NMSRA and WYSRA adopt this principle and state that beneficial use is the basis, measure, and limit of a solar right.⁶⁵ However, beneficial use is inapplicable to solar rights under the SRAs. The language within the NMSRA is ambiguous and fails to establish a minimum beneficial use for solar collectors that convey solar energy—which could increase litigation—while the WYSRA’s statutory language—the 25,000 BTUs standard—makes any reference to beneficial use unnecessary.

Although the New Mexico and Wyoming statutes do not define beneficial use, the SRAs either state or imply that a solar collector must be put to a beneficial use for a solar user to have a recognized solar right.⁶⁶ The sections of the SRAs addressing solar energy use are those same provisions that define the term “solar collector.”

The NMSRA conceptualizes beneficial use broadly to include the collection of 25,000 BTUs by a structure reliant on sunlight for energy, the conveyance of light into a structure, the use of solar energy in heating or cooling a structure, the pumping or heating of water, the generation of electricity, and industrial, agricultural, and commercial processes.⁶⁷ Even though the statute may be interpreted differently, the statute will likely be construed as recognizing two categories of solar collectors: (1) collectors that collect 25,000 BTUs and apply solar energy to one of the uses of section 47-3-3(A)(1)–(4); and (2) collectors that convey sunlight into the interior of a building. Because these two categories of solar collectors provide a different use within their definition, these recognized uses must be the beneficial uses of solar energy.

For example, a collector that uses 25,000 BTUs of collected solar energy to regulate the temperature of a structure, heat or pump water, or generate electricity contains an implicit beneficial use. This 25,000 BTUs minimum also places a size restriction on a solar collector applied to one of the uses under sections 47-3-3(A)(1)–(4). Without such a restriction,

63. A. DAN TARLOCK ET AL., *WATER RESOURCE MANAGEMENT: A CASEBOOK IN LAW AND PUBLIC POLICY* 182 (6th ed. 2009).

64. *Id.*

65. N.M. STAT. § 47-3-4(B)(1) (1978); WYO. STAT. ANN. § 33-22-103(b)(i) (1981).

66. WYO. STAT. ANN. §§ 34-22-104(b), -105(b)(iii) (1981); *cf.* N.M. STAT. § 47-3-4(B)(1) (1978) (the extent of the solar right varies with the amount of solar energy that can be beneficially used). Although beneficial use was included as a mechanism to resolve disputes—and listed as such under NMSRA section 47-3-4(B)—a solar collector must be put to a beneficial use for a solar right to exist. *See also* Kerr, *supra* note 16, at 742–43 (explaining that beneficial use would prevent a solar user from obstructing the development of adjacent property if the sunlight was not being used pursuant to the statute).

67. N.M. STAT. § 47-3-3(A) (1978).

the statute would recognize that a solar collector of any size, such as a small outdoor solar light, generating just enough electricity to light a path, could qualify as a solar collector.⁶⁸ As noted in the preceding analysis, solar collectors that convey light into structures do not have any limitation on their size because there is no quantity of sunlight that has to be collected, conveyed, or used.⁶⁹ This would allow a solar right to attach to an accent window under the NMSRA and may block, or substantially limit, the development of adjacent property that might interfere with that right.

Again, the WYSRA avoids many of the NMSRA's ambiguities by setting the minimum amount of solar energy needed to be collected and applied for the use to be beneficial. Unlike the NMSRA, 25,000 BTUs are a statutory requirement for a beneficial use to exist. The first provision of the act requires all solar collectors to be able to collect, store, or transmit 25,000 BTUs of solar energy⁷⁰ and, by doing so, establishes a size requirement for all solar collectors under the WYSRA. Additionally, each category of solar collector has a specific use for the collected solar energy, whether it is to heat a structure, generate electricity, or heat liquid for hot water or space heating.⁷¹ Furthermore, the WYSRA does not allow a conveyance of light into a building to be a beneficial use unless it is used for heating purposes.⁷² By including and excluding certain uses within the definition of a solar collector, the legislatures implicitly recognized uses that would constitute beneficial uses. However, by including a BTU standard and all the statutory uses, the concept of beneficial use is superfluous because it has been entirely defined by statute.

Unlike water law, where beneficial uses can change over time, only certain statutory uses for solar energy exist under the SRAs. The NMSRA's ambiguous language fails to provide any limitation to beneficial use for solar collectors that convey solar energy, while the WYSRA's beneficial use is limited to collecting, storing, or transmitting a certain amount of energy for certain purposes. By listing these uses in the WYSRA, the beneficial use principle loses its flexibility and becomes an unnecessary characteristic of a solar right. To improve the SRAs, beneficial use should be removed as an element of a solar right and replaced by statutory uses (e.g., collection, transference, or conveyance) with a mini-

68. Interestingly, the use of multiple solar lights that light a path at night may qualify as a solar collector if together they collect 25,000 BTUs because they are "a combination of devices, substances or elements" that rely on solar energy and generate electricity. *Id.* § 47-3-3(A).

69. *See supra* Part III.A.

70. WYO. STAT. ANN. § 34-22-102(a)(i) (1981).

71. *Id.*

72. *Id.* § 34-22-102(a)(i)(A).

mum BTU standard, which would limit solar collectors to a reasonable size. If the flexibility of beneficial use is still desired, a solar rights statute could include a general provision that lists “a structural element” that uses solar energy in the definition of a solar collector, limiting litigation to this one nonspecific provision.

C. Establishing a Workable Solar Right: Solar Collectors and Beneficial Use

Although the NMSRA and the WYSRA take different approaches in how they define a solar collector and what qualifies as a beneficial use, both recognize that a solar right needs these two elements to exist. The NMSRA approaches solar rights by providing broad, flexible definitions of solar collectors and beneficial uses, while the WYSRA narrows the definitions and beneficial uses that create a solar right.

Because the NMSRA attempts to define a solar right in more abstract terms, the statutory language is confusing, and each element of a solar right can be construed to recognize or exclude solar collectors that the legislatures may or may not have intended to create. Although the policy of adopting a broad definition of solar collector and the water law principle of beneficial use could encourage the use of solar energy, it also undermines protections for established solar users.

The WYSRA provides a much narrower interpretation of a solar collector and beneficial use because the statute recognizes specific structures that capture a statutory-required amount of solar energy and states specific uses of solar energy that qualify as beneficial uses. This definition offers more guidance for solar users and the courts to determine what qualifies as a solar collector and when solar rights should be recognized, thereby providing more predictability—and, hence, more protection—to solar users than the NMSRA. However, this specificity may also impede Wyoming courts from recognizing new solar energy applications.

Although the SRAs demonstrate each legislatures’ attempt to create a framework for recognizing a solar right, states amending or drafting their own Solar Rights Acts can learn from the approaches in the NMSRA and the WYSRA. Future Solar Rights Acts can avoid the NMSRA’s ambiguities by providing a clearer definition of a solar collector, which would ultimately protect the solar user and the adjacent property owner by minimizing litigation and clarifying their respective rights. Additionally, states enacting Solar Rights Acts can ensure a minimum size on solar collectors by establishing a BTU standard. Finally, states can eliminate superfluous references to beneficial use by providing uses and purposes for solar collectors within the acts. Drafting Solar Rights Acts according to these recommendations will ensure that a solar collector has

access to solar energy, that the solar energy can be used, and that solar users and adjacent property owners understand the requirements when establishing a solar right.

IV. STATUTORY LIMITATIONS OF SOLAR RIGHTS

After recognizing that a potential solar user has a solar collector and is putting the energy to a beneficial use, the NMSRA and the WYSRA also determine which government authorities can establish solar rights and the statutory limitations of these rights. According to the text of the statutes, local authorities are granted broad power to regulate solar rights.⁷³ Furthermore, the SRAs attempt to limit solar rights through beneficial use, prior appropriation, and other statutory provisions.⁷⁴ Unfortunately, the language within the SRAs granting power to the local authorities and the language limiting solar rights is problematic.

A. Local Authority and Limitations

Although the NMSRA and WYSRA regulate solar rights within their respective states, the New Mexico and Wyoming legislatures grant local authorities broad regulatory power under the SRAs. Some commentators argue that local zoning ordinances are the most effective manner of protecting solar access in neighborhoods and that many of these local governments may be effective in regulating solar access.⁷⁵ However, the extent of local regulatory power is unclear under the SRAs.

1. *The Extent of Local Authorities' Regulatory Power Under the NMSRA and the Role of the Recordation Act in the Absence of Local Regulation*

When the NMSRA was enacted, the statute did not clearly delegate the authority to regulate solar rights to any government entity. The only provision indicating the extent of a local authority's power to regulate solar rights was section 47-3-4(C), which stated, in part, "[P]ermit systems for the use and application of solar energy shall reside with county and municipal zoning authorities."⁷⁶ Because other NMSRA pro-

73. N.M. STAT. § 47-3-11 (1978); WYO. STAT. ANN. § 34-22-105.

74. See N.M. STAT. §§ 47-3-4(B)(1)-(2), -11 (1978); WYO. STAT. ANN. §§ 34-22-103(b)(i)-(ii), -104 (1981). Although the WYSRA obfuscates the extent of a solar right by describing it as "that illumination provided by the path of the sun on the winter solstice day," the statute still recognizes that the extent of the solar right is limited by beneficial use and other statutory provisions. WYO. STAT. ANN. §§ 34-22-103(b)(ii) (1981).

75. Stephen B. Johnson, *State Approaches to Solar Legislation: A Survey*, 1 SOLAR L. REP. 55, 116 (1979); Adrian J. Bradbrook, *The Role of the Courts in Advancing the Use of Solar Energy*, 9 J. ENERGY L. & POL'Y 135, 149-50 (1988).

76. N.M. STAT. § 47-3-4(C) (1978).

visions limit a local government's authority to regulate a solar right,⁷⁷ the extent of a local government's authority under section 47-3-4(C) was uncertain.

To provide more certainty as to the local government's regulatory authority, the New Mexico Legislature enacted the Recordation Act in 1983.⁷⁸ The Recordation Act gives significant regulatory authority to local governments that were regulating solar rights, while reserving the state's power to regulate solar rights in the absence of local regulations. Therefore, the Recordation Act either grants local authorities the power to regulate a solar right claim or retains the regulatory authority—at least until there is local regulation—and sets statutory restrictions on solar rights.

Though most of the language in the Recordation Act provides statutory requirements for claiming and recording a solar right, section 47-3-11(A) of the Recordation Act states that county and municipal authorities may regulate “in whole or in part the claiming of solar rights” in accordance with its regulatory powers “[n]otwithstanding any other provisions of the Recordation Act or the Solar Rights Act.”⁷⁹ Because of this language, a local authority seems to have been granted broad regulatory powers over the *claiming* of a solar right.

This language, which allows a local authority to regulate a solar right claim, permits a local authority to enact ordinances that ignore the declarations, findings, and other provisions related to such a claim under the NMSRA. Although the concepts of beneficial use, prior appropriation, and transferability are “to be applicable to the regulation of disputes over the use of solar energy,”⁸⁰ a local government has authority under the Recordation Act to ignore these concepts when enacting its own ordinance regulating the claiming of solar rights.

It may be argued that such an interpretation is overly broad because the Recordation Act was enacted only to provide a framework for claiming and recording solar rights but not intended to grant local governments authority to enact ordinances that ignore the NMSRA and the

77. *Id.* § 47-3-4(B)(2) (1978) (“Nothing in this paragraph shall be construed to diminish in any way the right of eminent domain of the state or any of its political subdivisions or any other entity that currently has such a right.”); *id.* § 47-3-4(C) (permit systems reside with local zoning authorities “[u]nless a singular overriding state concern occurs [sic] which significantly affect the health and welfare” of New Mexican citizens); *id.* § 47-3-5 (“Nothing in the Solar Rights Act shall be construed to alter, amend, deny, impair or modify any solar right, lease, easement or contract right which has vested prior to the effective date of the Solar Rights Act.”).

78. Solar Recordation Act, 1983 N.M. Laws page nos. 1217–21 (codified at N.M. STAT. §§ 47-3-6 to -12 (1978)).

79. N.M. STAT. § 47-3-11(A) (1978).

80. *Id.* § 47-3-4(B).

Recordation Act. However, section 47-3-11 of the Recordation Act is not limited to discussing a local authority's power to regulate a solar right. Section 47-3-11 also consists of statutory language regulating the location of a solar collector, the time of year, and the time of day in which a solar right shall be recognized absent local authority. These provisions, however, may be abrogated by local regulation because a local government has the power to modify these provisions by local ordinance.⁸¹ Furthermore, section 47-3-11 provides explicit exceptions to a local government's authority to regulate a solar right.⁸² If the intent of the NMSRA or the Recordation Act was to constrain a local authority's regulatory power over solar collectors, section 47-3-11 would not include the language "[n]otwithstanding any other provision," and the exceptions listed within 47-3-11 would protect specific provisions of the NMSRA or the Recordation Act.⁸³

Currently, section 47-3-11 provides three exceptions to a local government's power to regulate a solar right claim. The second and third exceptions prohibit local regulations from affecting previously vested solar rights.⁸⁴ Interestingly, the first exception allows a local authority to recognize a solar right only after the solar right has been recorded under the provisions of the Recordation Act. This exception states that a local authority may regulate all or part of a solar right regardless of any provision of the NMSRA or the Recordation Act "*except* that any solar right claimed pursuant to such local ordinance shall vest with respect to any property benefitted or burdened by the solar right only after recordation as provided in Section 4 of the Solar Recordation Act."⁸⁵ By excluding the recordation of solar rights under section 47-3-9 from local authorities' power to regulate solar rights, the legislature implicitly acknowledged that the language "[n]otwithstanding any other provision of the Solar Recordation Act or the [NMSRA]" was intended to grant local authorities power to override any other provisions of those acts.

The only other explicit limitation on a local government's power to regulate the claiming of a solar right under the New Mexico law is section 3-18-32, which places limitations on county and municipal au-

81. *Id.* § 47-3-11. ("Notwithstanding any other provisions of the Solar Recordation Act or the Solar Rights Act, the governing body of a county or municipality may by ordinance regulate in whole or in part the claiming of solar rights in accordance with its powers to regulate zoning, planning and platting, and subdivisions.").

82. *Id.* See discussion *infra*.

83. *Id.*

84. *Id.*

85. *Id.* (emphasis added). Although "Section 4" of the Recordation Act does not technically exist under the statute, Section 4 of the Recordation Act was codified at 47-3-9. See Solar Recordation Act, 1983 N.M. Laws page nos. 1218-21 (codified at N.M. STAT. § 47-3-9).

thorities to restrict solar collectors. This section states that a “county or municipality shall not restrict the installation of solar collectors as defined pursuant to the Solar Rights Act” except in historic districts.⁸⁶ This statutory limitation has been claimed to void any restrictions that prohibit or restrict the installation of a solar collector.⁸⁷ However, this conclusion is based on multiple assumptions. The first assumption is that a local authority will not adopt, or a court will not uphold, a restrictive definition of solar collector under section 47-3-3 of the NMSRA. The second assumption is that a local authority will not adopt, or a court will not uphold, local regulations that inadvertently restrict installing solar collectors.

As discussed above,⁸⁸ the definition of a solar collector under section 47-3-3 is unclear. Because it may be difficult to determine whether a solar energy structure qualifies as a solar collector, the limitations of section 3-18-32 prohibiting a local authority from “restrict[ing] the installation of a solar collector” depend upon the litigation of the definition of a solar collector under section 47-3-3. If a structure qualifies as a solar collector under the definition and a local authority intentionally restricts the installation of a solar collector, such regulation would likely be contrary to the purposes of the NMSRA and be invalidated by section 3-18-32. However, it is unclear that section 3-18-32 would invalidate a local regulation that was enacted to address an issue unrelated to the installation of a solar collector—like restrictions on rooftop structures—even if it inadvertently precludes a solar collector’s installation. Although the extent of a local government’s authority is unclear under the Recordation Act, the Recordation Act is the controlling statute in the absence of local regulation.

In the event that local authorities have not regulated solar rights, the Recordation Act provides statutory limitations on a solar collector’s location, the time of day in which a solar right may be claimed, and the amount a burdened property owner may interfere with a solar right. The allowable locations depend upon zoning regulations of the burdened property and the shadow cast by a hypothetical wall from the property line between the solar user and burdened property owner.⁸⁹

86. N.M. STAT. § 3-18-32 (1978) (this section was enacted in 2007 and is entitled “Limitation of county and municipal restrictions on solar collectors”).

87. Edna Sussman, *Reshaping Municipal and County Laws to Foster Green Building, Energy Efficiency, and Renewable Energy*, 16 N.Y.U. ENVTL. L.J. 1, 32 (2008).

88. See *supra* Part III.A.

89. N.M. STAT. § 47-3-11 (1978).

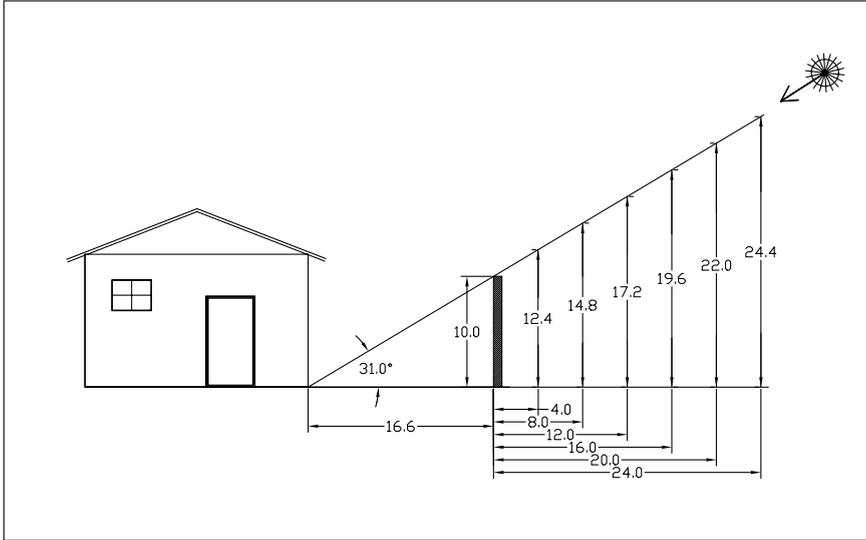


FIGURE 4: A TROMBE WALL AND ITS RESTRICTIONS ON AN ADJACENT PROPERTY⁹⁰

Under the Recordation Act, the height of the hypothetical wall is determined by the maximum height of allowed improvements on the burdened property: if the maximum building height is 24 feet, then the height of the hypothetical wall is 10 feet; if the maximum building height is 24 to 36 feet, then the height of the hypothetical wall is 15 feet; however, if the maximum building height is over 36 feet, then a solar user may not obtain a solar right against that property.⁹¹ Once the height of the hypothetical wall is established, the shadow cast by the hypothetical wall is used to determine the area in which a solar user cannot establish a solar right. In addition to limiting the location of a solar collector, the Recordation Act provides that a solar right shall be protected only between 9 a.m. and 3 p.m. and any improvement or vegetation shall not

90. Figure 4 assumes that the hypothetical wall is 10 feet tall in an area zoned for 24-foot buildings pursuant to the statute and demonstrates the restrictions that a Trombe wall can place on an adjacent property under section 47-3-11 of the Recordation Act. *Id.* The shadowed area in Figure 4 extends from the base of the house 16.6 feet to the 10-foot wall and from the ground to the line-of-sight. For examples of how a solar collector placed higher on the solar user's home or structure could reduce the distance between the properties and maintain maximum restrictions on the adjacent owner, see Figure 2 *supra* Part II.B and Figure 3 *supra* Part III.A.

91. For an in-depth analysis of the "hypothetical wall concept," see SANDY F. KRAEMER, SOLAR LAW: PRESENT AND FUTURE 209-25 (1978).

block more than 10 percent of the collectable solar energy during this time.⁹²

Although the Recordation Act provides clear guidance on how much a burdened property owner may obstruct a solar right, absent is any language indicating when a shadow cast from a hypothetical wall should be determined. By failing to provide language identifying the time of year that the shadow should be measured, the legislature inadvertently invites solar users and burdened property owners to litigate this determination.

To resolve such a dispute, winter solstice should be used as the time of year that the shadow should be determined because the sun is at its lowest point on the horizon and the shadow cast by the hypothetical wall on the solar user's property would be the largest. A larger shadow would then provide more protection to a burdened property owner because it would discourage a solar user from claiming a solar right near the property line. Although this may be interpreted as discouraging the use of solar energy—by limiting the locations where a solar collector may be installed—and contrary to the policy of the NMSRA and the Recordation Act,⁹³ the NMSRA already uses winter solstice to define a solar collector,⁹⁴ and it is a reasonable limitation on solar rights. Even though using winter solstice to determine where a solar collector may be installed would be the *most* restrictive for solar users trying to establish a solar right, it still allows a solar user to establish a solar right that restricts an adjacent property owner.⁹⁵

2. *The Extent of Local Authorities' Regulatory Power under the WYSRA*

Like the NMSRA, the WYRSA grants local governments the authority to promulgate land-use restrictions affecting solar rights. Although the WYSRA grants local authorities this power, it is noticeably silent in determining the amount of authority delegated to local governments and whether local regulations can discourage the use of solar energy systems.⁹⁶ The only provision explicitly limiting the extent of a local authority in the regulation of solar collectors is section 33-22-105(c): “No local government shall prohibit the construction or use of solar collectors except for reasons of public health and safety.”⁹⁷

92. N.M. STAT. § 47-3-11 (1978).

93. See *id.* §§ 47-3-2, -7 (it is the policy of the NMSRA and Solar Recordation Act to encourage solar energy use).

94. *Id.* § 47-3-3(A) (defining “solar collector”).

95. Note that in Figure 4, a burdened property owner cannot build to the maximum allowable height until almost 24 feet into the burdened lot.

96. See WYO. STAT. ANN. § 34-22-105 (1981).

97. *Id.* § 34-22-105(c).

One commentator argues the WYSRA gives broad regulatory powers to local authorities, finding “the regulation envisioned . . . is discretionary with the local governments.”⁹⁸ Under such a deferential approach, the statute may grant local and municipal authorities broad discretion in regulating when and where a solar energy system or solar collector may be used.⁹⁹ The commentator concludes that section 34-22-105(a) “allows—but does not require—local governments to encourage the use of solar energy systems by regulating the height, location, and setback of structures and vegetation.”¹⁰⁰ The WYSRA’s statutory language bolsters this argument as section 34-22-105(b)(ii) states: “If a local government sets height or locational limits on structures or vegetation, the local government may restrict the solar permit to the airspace above or surrounding the restrictions.”¹⁰¹ Coupling these two provisions, the statute may inadvertently diminish or void section 34-22-105(c) by granting broad regulatory authority to the local governments.¹⁰² These sections may also be interpreted to allow local governments to prohibit the construction or use of solar energy systems, as long as the land-use restrictions are not facially prohibitive.¹⁰³ This interpretation would also support the proposition that land-use regulations could be used to completely prohibit the construction and use of solar energy systems, in spite of section 34-22-105(c)’s public health or safety requirement.¹⁰⁴

While land-use regulations of section 34-22-105(b)(ii) could be used by local authorities to preclude the establishment of a solar right, implying that local governments could implement land-use regulations to intentionally prohibit the construction or use of solar collectors in spite of section 34-22-105(c) is misguided. Section 34-22-105(a) allows local governments to implement land-use regulations to encourage the use of solar energy systems, while section 34-22-105(c) declares “[n]o local government shall prohibit the construction or use of solar collectors except for the reasons of public health and safety.”¹⁰⁵ Reading these two statutory provisions together, the inference is that a local government may not use land-use regulations to prohibit or to discourage the implementation and use of solar energy systems. Therefore, the intent of the regulations should favor—or at least be neutral toward—solar energy

98. Peter R. Mounsey, *Solar Access Rights in Wyoming*, 19 LAND & WATER L. REV. 419, 422 (1984).

99. *Id.* at 422–23.

100. *Id.* at 423.

101. WYO. STAT. ANN. § 34-22-105(b)(ii) (1981).

102. See Mounsey, *supra* note 98, at 423.

103. See WYO. STAT. ANN. §§ 34-22-105(a), (c) (1981).

104. Mounsey, *supra* note 98, at 423.

105. WYO. STAT. ANN. § 34-22-105(c) (1981).

use and development, and any regulations that intentionally discourage the construction or use of solar energy systems would be contrary to the statute.

Under this interpretation, the intent of the local government becomes the relevant factor in determining whether local regulations can prevent the installation and use of solar energy systems. Local governments could not intentionally use zoning laws to prohibit the construction or use of solar energy systems by rezoning large areas for the purpose of limiting solar rights. For example, a local government's attempts to restrict solar permits to the airspace or surrounding areas of a property that could not be feasibly developed would not likely be allowed in the absence of a compelling public health or safety purpose.¹⁰⁶ However, in the instance where a residential property with one solar energy system borders an area zoned for taller buildings, regulations of section 34-22-105(b)(ii) may inadvertently preclude a residence's solar right.¹⁰⁷

Although the WYSRA fails to anticipate all situations where the land-use regulations of 34-22-105(b)(ii) conflict with solar energy developments, it does not delegate broad authority to the local government to void section 34-22-105(c) or to discourage the use of solar energy systems. By emphasizing the policy of land-use regulations in section 34-22-105(a) and encouraging the development of solar energy systems, section 34-22-105(b)(ii) can be construed in a manner that does not severely undermine section 34-22-105(c).

Under either the NMSRA and Recordation Act or the WYSRA, the extent of the statutory and local regulations is vague; yet, the language of the NMSRA and Recordation Act provide clearer authority than the WYSRA. Under New Mexico law, the NMSRA and Recordation Act are either the controlling statutes or, in the event that local authorities have regulated solar rights, are statutes that defer to the local authorities' regulatory powers. The extent of local authority under the WYSRA, however, is indeterminable under its current language and must be interpreted by the courts. While state legislatures intended to grant local governments some power to regulate solar rights under both the WYSRA and NMSRA, it is unclear if local authorities are afforded deference to enact regulations and ordinances that compete with the interests of the SRAs.

For an SRA to provide a strong regulatory framework for solar rights, the act must specify the amount of regulatory authority granted to

106. See Robert Tiedeken, Comment, *Access Rights for the Solar User: In Search of the Best Statutory Approach*, 16 Land & Water L. Rev. 501, 517 (1981).

107. Mounsey, *supra* note 98, at 423.

the local government. Solar Rights Acts need to include explicit prohibitions to stop local authorities from discouraging solar use and that circumscribe the role of the local authority to particular regulatory functions, such as permitting a solar right. Otherwise, these statutes risk further ambiguities and may encourage unnecessary litigation.

B. Beneficial Use as the Extent of a Solar Right

When determining the extent of a solar right under either statute, the solar user must consider whether the solar energy is being put to a beneficial use. As noted above, beneficial use is the basis, measure, and extent of a solar right.¹⁰⁸ Both statutes state that if “the amount of solar energy which a solar collector user can beneficially use varies with the season of the year, then the extent of the solar right shall vary likewise.”¹⁰⁹ The NMSRA and the WYSRA also state that a solar property right is a varying right because access to solar radiation varies as the angle of the sun moves throughout the year.¹¹⁰ However, a right that varies depending on the sun’s angle is impractical in the application of the law because the statute must protect a solar user’s access to solar energy throughout the entire year.¹¹¹ Beneficial use fails as a meaningful limitation because the solar user must retain a right to an easement throughout an entire year—even though the line-of-sight is only being used for part of the year.

Theoretically, the recognition of a varying solar right makes sense under the principle of beneficial use because the collection of solar energy—or the beneficial use of a solar collector—varies depending upon the seasonal position of the sun. In the summer, for example, the sun is higher and a steeper line-of-sight can be used to collect solar energy. Conversely, a lower line-of-sight is needed in the winter because the sun is lower on the horizon. Because some lines-of-sight can only be applied to a beneficial use during certain seasons, solar rights under the SRAs vary.

However, such a varying right would also mean that the solar user would have no right to a winter line-of-sight in the summer. Without applying a solar collector to a beneficial use, the solar user cannot

108. See *supra* discussion Part III.B; N.M. STAT. § 47-3-4(B)(1) (1978); WYO. STAT. ANN. § 34-22-103(b)(i) (1981).

109. N.M. STAT. § 47-3-4(B)(1) (1978); WYO. STAT. ANN. § 34-22-103(b)(i) (1981).

110. *Id.*

111. See John William Gergacz, *Legal Aspects of Solar Energy: Statutory Approaches for Access to Sunlight*, 10 B.C. ENVTL. AFF. L. REV. 1, 18–19 (1982) (discussing why beneficial use is inappropriate for solar energy). But see Kerr, *supra* note 16, at 739–42 (defending the adoption of beneficial use under the NMSRA).

have a solar right. Because of the nature of solar energy, the solar user could not apply a line-of-sight to a beneficial use throughout the year and, when the user ceased applying the line-of-sight to a beneficial use, the solar user would lose that right. Once the solar user loses the right, the user would have no means of protecting that line-of-sight, and it could be encroached upon by an adjacent property owner.

Consider the situation in which a solar user installs a rooftop solar collector and receives a solar right. During the summer, there may be little or no encroachment on the neighbor's property. However, in the winter there may be a severe burden on the neighbor's property that restrains the burdened property owner from developing his land—for instance, precluding an adjacent property owner from building a second story on a home. Under this scenario, the extent of the solar user's right may be questioned because the statutory right varies with the "season of the year" and depends on whether it is being applied to a beneficial use.

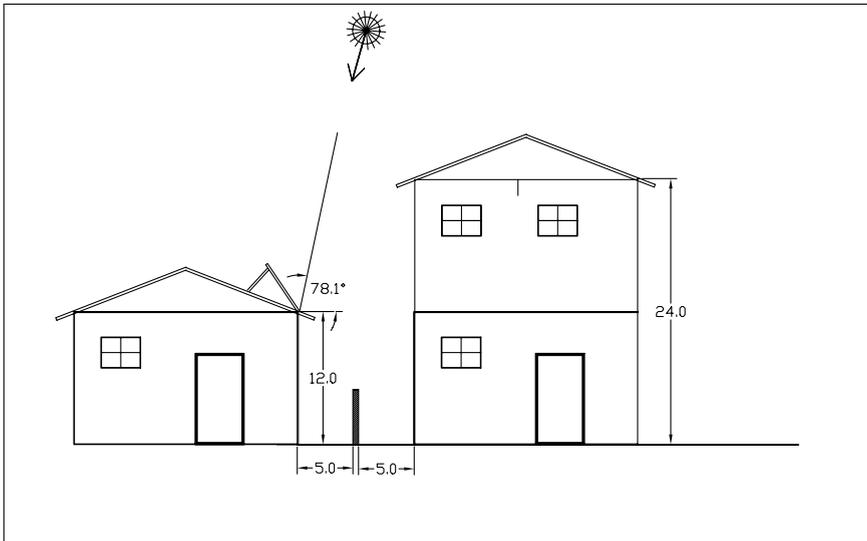


FIGURE 5: A SOLAR USER'S SUMMER LINE-OF-SIGHT

A strict interpretation would suggest that the solar user only has a right to an unobstructed path between the solar collector and the sun when applied to a beneficial use. Because the winter line-of-sight would not be applied to a beneficial use in the summer, the neighboring property owner could obstruct, or build into, the winter line-of-sight during the summer. While a neighbor's obstruction of a winter line-of-sight in the summer would not be problematic if the structure was seasonal, a

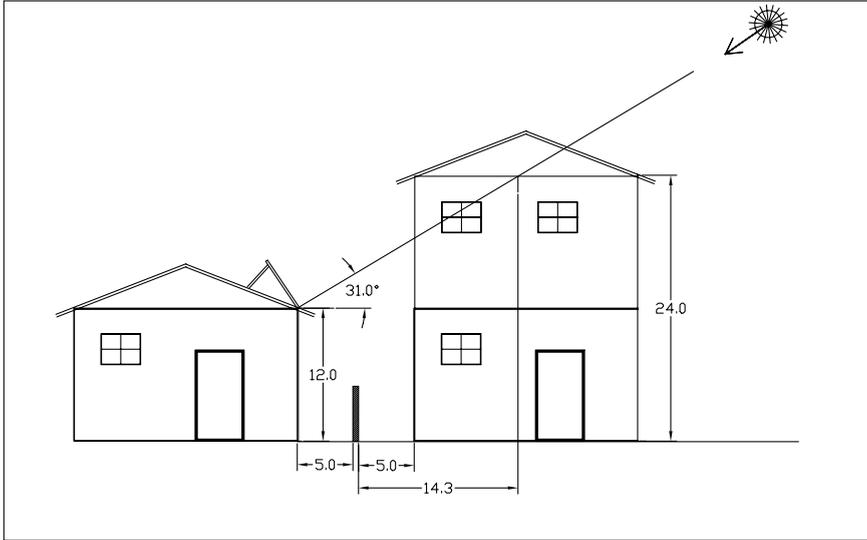


FIGURE 6: A SOLAR USER'S WINTER LINE-OF-SIGHT

permanent structure would eliminate the solar user's right in the winter and void part of the solar right granted under the statutes.¹¹² Allowing a burdened property owner to block the solar user's winter easement because the user is unable to put the solar energy to a beneficial use is contrary to the policy of the NMSRA, which encourages the implementation of solar collectors by private parties.¹¹³

A reasonable application of beneficial use would prohibit a burdened property owner from constructing a permanent structure from blocking a winter line-of-sight, even if the winter line-of-sight was not being applied to a beneficial use during the summer. Although a reasonable application may be more practical than a strict application of beneficial use, a reasonable application renders beneficial use as the basis, measure, and extent of a solar right meaningless.

112. Deciduous trees on adjacent property, conversely, could allow a partial winter line-of-sight and may or may not block a summer line-of-sight. However, any encroachment by the trees into a solar user's line-of-sight is still limited by statutory principles and restrictions. *See, e.g.*, N.M. STAT. § 47-3-11 (1978) (stating that the NMSRA and Recordation Act do not prohibit all encroachments or obstructions of a solar right and, under the statute, up to 10 percent of the collectible solar energy can be blocked); WYO. STAT. ANN. § 34-22-103(b) (1981) ("Priority in time shall have the better right.").

113. N.M. STAT. § 47-3-2 (1978).

Therefore, any Solar Rights Act must provide protection to the solar user's winter line-of-sight, even if it can only be beneficially used for a specific season of the year. Otherwise, burdened property owners could slowly extinguish a solar user's solar right by building into a line-of-sight when it is not being applied to a beneficial use. To ensure access to solar energy under any Solar Rights Act, a solar right that is applied to a beneficial use for one season must be considered a non-varying right to a line-of-sight. The statutory language should reflect this by eliminating the beneficial use provision and by defining a solar right as the area between the lower edge of a solar collector on a winter solstice day and the upper edge of the solar collector on summer solstice.

C. Prior Appropriation

Another principle adopted from water law under the solar rights statutes is the principle of prior appropriation or priority in time. In water law, the prior appropriation doctrine is the rule that "the earliest users of the water have the right to take all they can use before anyone else has a right to it."¹¹⁴ The NMSRA and WYSRA adopt the principle of prior appropriation to resolve disputes between the competing interest of the solar user and the burdened property owner, stating that priority in time "shall have the better right."¹¹⁵ Because priority in time has a better right, a solar user has the right for an established solar collector to access solar energy in the event that a tree, bush, structure, or building blocks the line-of-sight access to the sun. However, under the NMSRA and the WYSRA, ambiguities raise questions as to whether subsequent solar users could be favored over adjacent property and what date constitutes the priority dates for solar users and the adjacent property owner. With these statutory ambiguities, the resulting effect may be to undermine the development of solar rights in both New Mexico and Wyoming.

1. Solar Rights and Existing Structures

Under the NMSRA, prior appropriation applies to disputes except when the State of New Mexico or the state's political subdivisions "may legislate, or ordain that a solar collector user has a solar right even though a structure or building located on neighborhood property blocks sunshine from the proposed solar collector site."¹¹⁶ Because prior appropriators have the better statutory right, an installed and permitted solar

114. BLACK'S LAW DICTIONARY, *supra* note 15.

115. N.M. STAT. § 47-3-4(B)(2) (1978); WYO. STAT. ANN. § 34-22-103(b)(ii) (1981).

116. N.M. STAT. § 47-3-4(B)(2) (1978).

collector's access to solar energy cannot be blocked more than 10 percent by a neighboring property owner's vegetation or structures, unless otherwise allowed by a local authority.¹¹⁷

However, the language provides that a government "may legislate" that a solar right exists "even though a structure or building . . . blocks sunshine from the proposed solar collector site."¹¹⁸ This language was only intended to recognize a situation where a solar user had established a solar right and an adjacent property owner subsequently constructed an addition that blocked the solar panel's access to the sun.¹¹⁹ While this may have been the intent, the statutory language is permissive and suggests that any government entity with authority under the NMSRA may grant a solar right to a solar user who does not have priority in time.¹²⁰ Such an interpretation of the statute is consistent with the NMSRA's policy of promoting the use of solar energy and is a reasonable interpretation because the NMSRA provides protection to a solar user by recognizing a property right to access solar energy. Regardless of whether or not the legislature intended to provide a government authority to recognize a solar right through an existing building absent prior appropriation, the NMSRA apparently grants such authority.

In an extreme example, this authority could allow a solar user to petition the state or local government to establish a solar right through an existing building. In the unlikely event that a solar user was granted such a right, the solar user could request the owner to remove the part of the structure that encroached into the solar right, including the part of the building or any vegetation blocking the solar collector. Alternatively, and more likely, the solar user could request a payment to compensate for the "loss" of the solar right. Although the Solar Recordation Act may provide adequate procedural due process for a solar right to be established over a burdened property, the recognition of a solar right after a building or structure has been erected may constitute a taking.¹²¹ Unlike the NMSRA, the WYSRA does not have a provision that could allow a

117. *Id.* §§ 47-3-4(B)(2), -11(A).

118. *Id.* § 47-3-4(B)(2).

119. See Kerr, *supra* note 16, at 744 ("[I]t was obviously not intended that a high rise building could be ordered torn down if a solar collector were later installed on a nearby property which could put sunlight blocked by the high rise to a beneficial use. But note that that could be done. . . ."); N.M. STAT. § 47-3-8 (1978) ("Once vested, the [solar] right shall be enforceable against any person who constructs or plans to construct any structure" violating the terms of the NMSRA or Recordation Act).

120. Gergacz, *supra* note 111, at 14.

121. Although this article does not address the constitutionality of the NMSRA, other scholars have questioned the validity of the statute. See, e.g., Gergacz, *supra* note 111, at 15-18 (discussing the unconstitutionality of the NMSRA); Johnson, *supra* note 75, at 120-21; Alvarez, *supra* note 6, at 551-54 (discussing solar energy easements and the takings clause).

government to grant a solar right where a building or structure blocks sunshine from the solar collector.¹²²

2. Establishing Priority Dates for Adjacent Developers and Solar Collectors

While the possibility that a solar right could be recognized through an existing structure under the NMSRA, a larger problem with the SRAs is that they fail to establish comparable priority dates for property owners attempting to develop their land and solar users who are attempting to obtain a solar right.

The NMSRA lacks any provision establishing a priority date for building construction on a neighboring property. Because of this statutory silence, the possibility exists that the priority date is the date a property owner applied for the building permit, the date the permit was granted by the local authority, the date that the building's construction was completed, or a number of other potential dates. The lack of a statutory priority date for buildings means that property developers in a legal dispute will argue the earliest priority date while the solar user will argue the latest priority date.

To further complicate the issue, the NMSRA does not have a provision that sets the priority date for a solar collector. Although the NMSRA authorizes local authorities to establish a permit system and may allow the local authority to determine the priority date itself, the NMSRA does not determine when a priority date attaches to a solar collector.¹²³ Similarly silent, the Recordation Act states that a solar right vests only after recordation and that previously vested solar rights shall not be not affected.¹²⁴ However, the date of vesting does not necessarily give the solar user a priority date because there are a number of dates—the date of application for permit, the date of vesting, or the date of first beneficial use—that could be used as the priority date, with the solar user and the adjacent property owner litigating the date that best serves their own interest.

In slight contrast to the NMSRA, the WYSRA provides a priority date for developments on adjacent property. The WYSRA states, “The priority of new construction with regard to interference in solar rights

However, it must be noted many of these criticisms deal only with the NMSRA before the Solar Recordation Act was enacted in 1983.

122. See WYO. STAT. ANN. § 34-22-103(b)(ii) (1981).

123. See N.M. STAT. §§ 47-3-4(C), (B)(2) (1978); Kerr, *supra* note 16, at 747 (“Presumably only the owner of a permitted collector could claim a solar right. . . . Besides maintaining public control, the permit would help determine the seniority of a right in dispute.”).

124. N.M. STAT. § 47-3-11(A) (1978). Yet, it is unclear from the statute's language whether a previously vested solar right is a solar right that vested before the NMSRA or the Solar Recordation Act.

shall vest as of the date the building permit is applied for.”¹²⁵ This provision makes progress on resolving possible disputes between a solar user and a property owner by setting a priority date for buildings being constructed.

Yet, like the NMSRA, the WYSRA does not provide a priority date for solar collectors. The WYSRA is as ambiguous as the NMSRA and states nothing about when a priority date for a solar collector is established.¹²⁶ Like the NMSRA, local authorities have the power to establish permit systems¹²⁷ and, possibly, to determine when the vesting of a solar right occurs.¹²⁸ But this power to issue permits does not necessarily establish a priority date for a solar user.¹²⁹ Because the WYSRA is silent as to when the priority date is set, potential solar users and burdened property owners may litigate whether or not a local government has the power to determine a priority date. If local governments are found to either lack this regulatory power or have simply not established a way to determine priority dates, solar users and burdened property owners may also litigate the issue of how a priority date should be determined.

While a priority date could be determined by various events, under the WYSRA, the priority date would probably be interpreted as either the date of first application of solar energy to a beneficial use or the date on which a solar right permit application was submitted. However, because the WYSRA uses beneficial use as the basis, measure, and extent of a solar right,¹³⁰ beneficial use could reasonably be used to establish the right's priority date. Other WYSRA provisions support this interpretation because beneficial use also determines the priority date for solar collectors existing before the WYSRA,¹³¹ and it is used to determine when a solar right has been abandoned.¹³²

Yet the WYSRA might also use the permit application date for a solar right because the statute uses this date as the priority date for new construction.¹³³ Fairness would dictate that the priority dates for a solar collector and new construction should be established using the same criteria, allowing a solar user to argue that the priority date for a solar right

125. *Id.* § 34-22-105(b)(iv).

126. WYO. STAT. ANN. § 34-22-103(b)(ii) (1981).

127. *Id.* § 34-22-105(b).

128. *Id.* § 34-22-105(b)(ii).

129. Although a local government's regulatory power under the statute has been analyzed earlier in this article, it must be noted that the power to establish a priority date for solar collectors is not stated under section 34-22-105. *Id.* § 34-22-105.

130. *Id.* § 34-22-103(b)(i).

131. WYO. STAT. ANN. § 34-22-105(b)(vi) (1981).

132. *Id.* § 34-22-104(b).

133. *Id.* § 34-22-105(iv).

should be the date of its permit application. The statute's language indirectly supports such an interpretation by providing that a solar right vests when a permit is granted and that the solar right must be put to a beneficial use within two years.¹³⁴ This provision implies that a permit ensures a solar right before the solar energy is applied to a beneficial use.

Although the provision is not determinative in deciding whether the permitting of a solar right or the application for a permit establishes the priority date, the granting of a solar right without a priority date would provide no protection to the solar user. Without a priority date, the solar user would have no protection of their solar right because “[p]riority in time shall have the better right.”¹³⁵ If a solar user obtained a solar right without a priority date, the adjacent property owner could obtain a better priority date simply by applying for a building permit before the solar right was applied to a beneficial use—even if the solar right was permitted. Because WYSRA's language allows a solar right to be vested and permitted before beneficially being used, a solar right's priority date should be determined in the same manner as the priority date for a new construction; the priority date should be the date that the solar user applies for the solar right.

In order to balance adjacent property owners' interests in developing their property and the statutory purpose of encouraging domestic solar development, Solar Rights Acts must set the same priority dates for both parties. Whether the parties are applying for a building or solar permit, beginning construction, or installing a solar collector, setting an identical priority date for both will ensure that each property owner has an equal opportunity to develop their property as they see fit. Setting the same priority date for both will also ensure that a solar right will not be recognized through a structure that was “first in time” and will provide an actionable remedy when a solar right is encroached.

D. Transferability: A Costly Burden

The NMSRA and WYSRA allow a solar right to be transferred from one property owner to another.¹³⁶ However, when a burdened property owner is attempting to purchase a solar right from a neighboring solar user to extinguish the right, the value of the solar right becomes an issue. Multiple ways to value a solar right have been proposed, including the monetary savings provided by a solar collector and the costs associated with moving the solar collector to another part of the solar

134. *Id.* § 34-22-105(iii).

135. WYO. STAT. ANN. § 34-22-103(b)(ii) (1981).

136. N.M. STAT. §§ 47-3-4(B)(3), -10 (1978); WYO. STAT. ANN. §§ 34-22-103(c), -106 (1981) (recognizing the validity of transfers and need to record solar rights transfers).

user's property, but the SRAs have not adopted a statutory valuation.¹³⁷ While these proposals may be the actual value of the solar right, the absence of a statutory valuation allows the cost of the solar right to be determined by the property owners. Absent a taking by the government, abandonment, forfeiture, or a statutory valuation of a solar right, the cost of extinguishing or transferring a solar right would be determined by the solar user's willingness to sell the solar right and the burdened property owner's willingness to purchase it.

However, the SRAs' lack of statutory valuation fails to take into account the difference between the interests of the parties and the solar right's affect on the burdened property owner. The solar user has little incentive to sell an established right that is being applied to a beneficial use, while the burdened property owner may want the right extinguished or modified so that it is less restrictive to the property. Because of this imbalance, the solar user will be able to leverage his bargaining position to increase the monetary value of the solar right. The adjacent property owner, faced with a burdensome solar right that is costly to extinguish, will then be encouraged to contest the solar right through litigation. The inclusion of a statutory valuation rebalances the competing interests by limiting the amount a solar user can demand to transfer or extinguish a solar right and provides guidance to a court in the event of litigation.

Although some solar energy users may be encouraged to acquire solar rights to inhibit their neighbors' development, the lack of a valuation for a solar right demonstrates an inability of the current SRAs to balance the need for solar development against the interests of affected landowners. By including a clear valuation provision within a Solar Rights Act, disputes over a solar right's value can be minimized and the successful implementation of domestic solar energy can be encouraged.

V. CONCLUSION

As the U.S. economy continues to transition to renewable fuels and domestic solar energy development, there must be a strong policy and statutory regime that encourages such development. New Mexico's and Wyoming's Solar Rights Acts were drafted to provide solar users with a property interest that protects access to solar energy and promotes domestic solar energy use. By recognizing such property rights, these SRAs afford more protection to solar users than either common law or express easements. However, encouragement of domestic solar energy development and protection of solar access also depends upon clear

137. Kerr, *supra* note 16, at 745-46.

and unambiguous statutory language. While these SRAs grant more protection to solar energy access than common law or easements, their current language makes them susceptible to litigation and, thus, impractical for solar users. In order to protect solar access, balance the interests of solar users and burdened property owners, and encourage domestic solar energy, these acts need to be amended to: (1) clarify the definition of solar collector; (2) adopt a minimum BTU standard; (3) delineate the roles and powers of the local and state authorities in the regulation of a solar right; (4) remove beneficial use as a basis, measure, and extent of a varying solar right; (5) set equal priority dates for solar collectors and competing structures; and (6) provide a reasonable statutory valuation for a solar right. Redrafting the NMSRA and the WYSRA according to these recommendations will provide other states with an example of how to encourage and protect the development of domestic solar energy through a statutory framework that recognizes a solar right.

APPENDIX: A MODEL SOLAR RIGHTS ACT

§ 1. Short Title

This act, sections 1 through 10, may be cited as the “Solar Rights Act.”

§ 2. Declarations and findings¹³⁸

The legislature declares that the State of [Name of State] recognizes that economic benefits can be derived for the people of the state from the use of solar energy. The legislature further finds that solar energy is a viable energy source in [Name of State], and as such, its development should be encouraged. Since solar energy may be used in small-scale installations and one of the ways to accomplish such encouragement is by protection of rights necessary for small-scale installations, the legislature declares such protection to be the purpose of this act and necessary to the public interest.

138. This section was taken from the NMSRA, section 47-3-2, and the Recordation Act, section 47-3-7, in order to provide interpretive guidance to attorneys and the courts so that—along with section 3(A)(6) of the proposed act—an argument for a new solar right may be made and to determine whether or not an existing solar right conforms with the purposes of the act.

§ 3. Definitions¹³⁹

- (A) A “solar collector” is one (1) of the following that is capable of collecting, storing, or transmitting at least twenty-five thousand (25,000) British thermal units (BTUs) on a clear winter solstice day:
- (1) A wall, skylight, or window designed to transmit solar energy into a structure for heating purposes;
 - (2) A greenhouse attached to another structure and provides part of the heating load for the structure to which it is attached;
 - (3) A Trombe wall, “drum wall,” or other wall or roof structural element designed to collect and transmit solar energy into a structure;
 - (4) A photovoltaic collector designed to convert solar energy into electric energy;
 - (5) A plate-type collector designed to use solar energy to heat air, water, or other fluids for use in hot water or space heating or for other applications; or
 - (6) A structural element designed to collect solar energy and transmit it to internal spaces for heating or a structural element designed to convert solar energy into electricity.
- A solar collector being used in accordance with at least one of the six (6) uses provided above may also serve as a structural member, as part of a roof, wall, or as a window, of the building to which it is attached.
- (B) A “solar right” is a property right composed of an unobstructed line-of-sight path from a solar collector to the sun that permits radiation from the sun to impinge directly on the solar collector. A solar right is that area between the line-of-sight path from the bottom of the solar collector to the sun on a winter solstice day and the line-of-sight path from the top edge of the solar collector on a summer solstice day. A solar right is appurtenant to the real property upon which the solar collector is permitted and situated.¹⁴⁰
- (C) “Winter solstice day” is the solstice on or about December 21, which marks the beginning of winter in the northern hemisphere and is the time when the sun reaches its southernmost point.¹⁴¹

139. This section slightly modifies section 34-22-102 of the WYSRA by incorporating some provisions of section 47-3-3 and 47-3-4 of the NMSRA to provide statutory guidance in determining what elements compose a solar right and to clarify what structures and uses are needed to claim a solar right.

140. This provision replaces beneficial use in section 34-22-102 of the WYSRA with a right to access solar radiation between summer and winter solstices. Additionally, this definition attaches a solar right to the real property where a permitted solar collector was installed.

141. This section adopts section 34-22-102(a)(iii) of the WYSRA.

- (D) “Summer solstice day” is the solstice on or about June 21, which marks the beginning of summer in the northern hemisphere and is the time when the sun reaches its northernmost point.
- (E) “Local government” means a city, town, or county.

§ 4. Local government’s authority

- (A) The local government shall establish a permit system for the access to solar energy:¹⁴²
 - (1) A solar permit shall be granted before a solar right may be established;
 - (2) The local government shall grant a solar permit to any proposed or existing solar collector that complies with this act;
 - (3) The solar right vests on the date the solar permit is granted. The solar collector shall be put to use within one (1) year, except the local government may allow for additional time for good cause shown. The local government shall certify the right and its use within one (1) year of its vesting.
- (B) Except in historical districts designated before the passing of this act, land-use regulations of local governments may not discourage the use of solar energy systems.¹⁴³
- (C) Nothing in this act shall be construed to diminish the right of eminent domain.¹⁴⁴
- (D) No local government shall prohibit the construction or use of solar collectors except for reasons of public safety.¹⁴⁵

§ 5. Limitations of a solar right

- (A) A solar collector shall be located on the solar user’s property so it does not unreasonably or unnecessarily restrict the uses of neighboring property:¹⁴⁶

142. Section 4(A) adopts provisions of section 34-22-105(b) of the WYSRA in order to grant the local government authority to permit solar collectors and to ensure they are being used pursuant to the statutory uses.

143. This provision adopts a provision substantially similar to section 34-22-105(a) but uses “may not discourage” in place of “may encourage.” This language restricts local governments from using zoning regulations to discourage solar energy use except in historical districts.

144. This provision adopts a provision similar to section 47-3-4(B)(2) of the NMSRA and section 34-22-103b(iii) of the WYSRA.

145. This provision adopts section 34-22-105 of the WYSRA.

146. Section 5(A) adopts parts of section 34-22-104(c) of the WYSRA as well as provisions from section 47-3-11 of the Recordation Act to provide more restrictions on solar users for areas zoned for higher buildings and structures. However, this provision intentionally omits the provision allowing adjacent owners to block 10 percent of a solar collec-

- (1) If the property burdened by a solar right has or could have improvements constructed to a maximum height of twenty-four (24) feet, then the solar right shall be limited, as to that burdened property, to protecting an unobstructed line-of-sight path from the solar collector to the sun only as to obstructions located on the burdened property that cast a shadow greater than the shadow cast by a hypothetical fence ten (10) feet in height located on the property line of the property on which the solar collector is located. A solar right may only attach to the solar collector within the shade of a hypothetical wall unless so provided in a local ordinance or agreed to by contract;
 - (2) If the property burdened by a solar right has or could have improvements constructed in excess of twenty-four (24) feet in height, but no greater than thirty-six (36) feet, then the solar right shall be limited, as to that burdened property, to protecting an unobstructed line-of-sight path from the solar collector to the sun only as to obstructions located on the burdened property that cast a shadow greater than the shadow cast by a hypothetical fence fifteen (15) feet in height located on the property line of the property on which the solar collector is located. A solar right may only attach to a solar collector within the shade of the hypothetical wall unless so provided in a local ordinance or agreed to by contract;
 - (3) No solar right shall be obtained against property that has or could have improvements constructed in excess of thirty-six (36) feet in height unless so provided in a local ordinance or agreed to by contract.
- (B) The solar right to radiation before 9:00 a.m. or after 3:00 p.m. Mountain Standard Time is *de minimus* and may be infringed without compensation to the owner of the solar collector.¹⁴⁷
- (C) In disputes involving solar rights, priority in time shall have the better right;¹⁴⁸

tor—as in section 47-3-11 of the Recordation Act—because including the provision allows an adjacent owner to reduce the solar collector’s production by 10 percent, reducing a solar user’s investment, and discouraging investment in solar energy. Section 5(A) should be modified by the legislatures of other states to restrict a solar right to reasonable conditions. For example, in northern latitudes, a winter line-of-sight may be extremely restrictive on adjacent property owners even with the restriction in section 5(A).

147. This provision is adopted from section 34-22-104(a) of the WYSRA. The time and time zone in which a solar user can access solar energy must be modified so that the restrictions are practical for the solar users in the state.

148. Modifying section 47-3-4(B)(2) of the NMSRA, and similar to section 34-22-103(b)(ii) of the WYSRA, this first provision adopts prior appropriation as a limitation on

- (1) Priority dates for solar collectors shall be determined by the date that the owner of the solar collector applied for the permit to install the solar collector;
 - (2) Priority dates for buildings or structures shall be determined by the date that the owner of the building or structure applied for the permit to construct the building or structure.
- (D) A solar right that is not applied to one of the statutory uses under the Solar Rights Act for a period of five (5) years or more shall be deemed abandoned and without priority.¹⁴⁹

§ 6. Prior solar rights¹⁵⁰

Nothing in the solar rights act shall be construed to alter, amend, deny, impair, or modify any solar right, lease, easement, or contract right that has vested prior to the effective date of this Solar Rights Act provided that existing solar users permit their solar rights according to the provisions of this act within five (5) years after this act is adopted. The priority date for these solar rights shall be the first date that the solar collector was used.

§ 7. Enforceability of a solar right¹⁵¹

A solar right may be claimed by an owner of real property upon which a solar collector has been placed. A solar right shall be enforceable against any person who constructs or plans to construct any structure in violation of the terms of the Solar Rights Act. A suit to enforce a solar right may be brought at law or in equity.

solar rights. These provisions, section 5(C)(1) and (C)(2), clarify when a priority date attaches to a solar collector, a building, or other structure in disputes over solar rights. Furthermore, this provision omits language from section 47-3-4(B)(2) of the NMSRA that could be interpreted to recognize a solar right in spite of an existing building or structure.

149. This provision adopts section 34-22-104(b) of the WYSRA.

150. This section adopts 47-3-5 of the NMSRA to protect existing solar users; however, analogous to section 34-22-105(b)(vi) of the WYSRA, it requires a solar user to record the existing solar rights with the local governments.

151. This section adopts language from section 47-3-8 of the Recordation Act to clearly state that solar rights are enforceable against individuals constructing a structure or building on adjacent property.

§ 8. Recording solar rights; effect of failure to record; contesting a solar right¹⁵²

- (A) The granting of solar permits and the transfer of solar rights shall be recorded pursuant to [Citation to Applicable State Statutes and/or Local Regulations]. The instrument granting a solar permit shall include a description of the collector surface or that portion of the collector to which the solar permit is granted. The description shall include the dimensions of the solar collector's surface, the direction of orientation, the height above ground level, and the location of the solar collector on the solar user's property.
- (B) Any person desiring to claim a solar right must record that right and give notice to affected property owners as a necessary condition precedent to enforcing a solar right. Failure to so record and give notice shall constitute a jurisdictional defect and deprive any court of subject matter jurisdiction to enforce the solar right.
- (C) Any person who receives notice of the recordation may, within sixty (60) days after receiving notice, file a declaration contesting the right, in the same manner and at the same place as the recordation was filed. If a declaration is filed contesting the claimed solar right, then the solar right shall not be enforceable against the property covered by the declaration unless agreed to by contract or ordered by a court of competent jurisdiction, and any claim of a solar right shall expire one (1) year from the date of declaration unless the parties agree by contract to settle the solar rights dispute or court action has commenced by that date to establish the claim of the solar right.

§ 9. Valuation of solar rights¹⁵³

Unless otherwise agreed upon by the parties or court order, the valuation of a solar right shall be determined by the monetary expenses of uninstalling, transporting, and reinstalling the solar collector in a similar location on the solar user's property.

152. This section combines section 47-3-9 of the Recordation Act and section 34-22-106 of the WYSRA to provide the elements necessary for recording a solar right, the consequences of failing to record a solar right, and how a solar right may be contested after recordation.

153. This provision gives a statutory valuation for a solar right that was lacking in the NMSRA and WYSRA. Because the solar user has the option of whether to sell the solar right or refuse to sell it, this provision would limit the costs to a reasonable amount and would leave the solar user in the same position as if the burdened property owner had not blocked the solar right.

§ 10. Transferability

- (A) Solar rights are property rights and as such shall be freely transferable within the bounds of the law.¹⁵⁴
- (B) Unless the document of conveyance otherwise specifies, upon the transfer of any realty on which a solar right exists or upon the transfer of any realty benefited by a filed declaration contesting a solar right, that solar right or declaration contesting the solar right shall be transferred with the realty and shall be enforceable by the vendee in the same manner and to the same extent to which it was enforceable by the vendor. Nothing in this section shall be construed to prevent a person from agreeing to relinquish a solar right or a potential solar right.¹⁵⁵

154. This provision is adopted from the NMSRA, section 47-3-4(B)(3), and the WYSRA, section 34-22-103(c), to grant statutory authority to the transfer of a solar right.

155. This provision adopts section 47-3-10 of the Recordation Act to clarify when a solar right is transferred to a subsequent purchaser and if it can be relinquished.

