

# Model Solar Energy Access Legislation



2010

**FULBRIGHT**  
*& Jaworski L.L.P.*  
*Attorneys at Law*

## **MODEL SOLAR ENERGY ACCESS LEGISLATION**

By: *Erik J.A. Swenson*

As assisted by summer associates: *Aaron Gopen, Ann McNamara, Britney Harrison, Chad Thompson, Dan Lynch, Kelli Lundy, Kristin Bjella, Laura Binger, Nikhila Raj, Ryan Scofield and Travis Mock*

---

### **TABLE OF CONTENTS**

#### **INTRODUCTION**

<b>I. PURPOSE .....</b>	<i>Page 4</i>
<b>II. DEFINITIONS .....</b>	<i>Page 4</i>
<b>III. SOLAR EASEMENTS .....</b>	<i>Page 5</i>
<b>IV. SKYSPACE .....</b>	<i>Page 6</i>
<i>A. Planning and Zoning Authorization</i>	
<i>B. Solar Energy System Registration and Notification Service</i>	
<i>C. Solar Access Permit</i>	
<i>D. Planning</i>	
<b>V. LIMITS ON PROSCRIPTIONS .....</b>	<i>Page 12</i>
<b>VI. ENFORCEMENT .....</b>	<i>Page 14</i>
<b>APPENDIX A .....</b>	<i>Page 15</i>
<i>Model Solar Easement Form</i>	
<b>APPENDIX B .....</b>	<i>Page 17</i>
<i>Commentary on Selected Language in Model Text</i>	

---

Copies of this document may be made as a whole and subportions may be used with proper attribution. We encourage questions to be addressed to the principle author.

**Erik J.A. Swenson, Partner**

*eswenson@fulbright.com*

+1 202 662 4555

**Fulbright & Jaworski L.L.P.**

Market Square

801 Pennsylvania Avenue N.W.

Washington, DC 20004-2623

## INTRODUCTION

At the request of the American Bar Association Environment, Energy and Resources Section's Renewable Energy Resources Committee, over the course of the summer of 2008, the law firm of Fulbright & Jaworski L.L.P. organized several attorneys<sup>1</sup>, 11 summer associates<sup>2</sup> and members of the firm's permanent staff<sup>3</sup> to (1) review existing solar access laws, both statutory and common law, across the United States and several other English speaking countries, and (2) develop model legislation for potential use by states wishing to enhance access to solar energy for useful purposes.<sup>4</sup> The scope of our work was focused on four aspects of solar access rights: (1) basic rights to "Skyspace" *i.e.*, the lines of sight between a solar energy collector and the portions of the sky occupied by the sun for a portion of each day; (2) the ability of owners of adjacent parcels of land to enter into durable agreements that will ensure future access to insolation, beyond any automatic protection of Skyspace provided by law; (3) the role of local governments; and (4) the ability of homeowners associations ("HOAs") to proscribe the installation of solar energy devices.

We recognize that there are a host of other issues that can have a substantial impact on whether solar energy devices will be practicable to employ, including, for example, the pricing of substitute energy sources; policies with respect to the sale and pricing of any excess solar power produced; and interconnection requirements. We have deliberately chosen not to address these areas. Further, because we anticipate that large-scale solar farms: will generally not face issues as to material encroachment of Skyspace by structures or vegetation on neighboring properties; will not be located at sites that would normally provide zoning hurdles; and would not be located in neighborhoods governed by HOAs, our model legislation was drafted with smaller scale installations in mind (e.g., installations at individual residences and businesses whose primary commercial enterprise is not the production of solar power).

While we believe that the benefits of the model legislation generally will be greatest if the model statute is adopted in its entirety, the model has been constructed in a largely modular fashion to facilitate customization. For example, if a state concluded that, in its circumstances, small scale solar did not offer sufficient benefits to justify imposing non-consensual restrictions on the use of Skyspace, such state might still wish to adopt all of the model legislation with the exception of Subprovision IV.(C) and the definition of Solar Access Permit (found in Section II).

The commentary following the model legislation provides information on the derivation of much of the language in the model legislation. Policy makers may wish to contact appropriate representatives of jurisdictions with experience in any area of the legislation that are of special interest to them before fine tuning the model legislation. In a few places in the model legislation and the related form of easement, we have further facilitated customization by providing alternative formulations. Finally, we would urge policy makers to consider the interaction of existing law with the provisions of the model code prior to adopting the model legislation. For example, real property law concepts such as the way in which easements are recorded or what constitutes a taking may warrant departures from the model.

- 
- 1 The author is appreciative of the support provided by his colleagues Marc Collier, Jack Harrington, Poe Leggette, Les Lo Baugh, Girard Miller, Paul Sarahan, Travis Siebeneicher, Mark Tibberts, Willie Wood and Sey Zimmerman, who were always there to oversee the work of our summer associates, provide substantive input with respect to their areas of expertise, or offer encouragement. In addition, Rabeha Kamaluddin and Nick McMann provided fresh sets of eyes to review these materials and check for continued accuracy of the citations in these materials.
  - 2 The summer associates acknowledged above manned the laboring oars of this project, researching existing law and voicing their opinions on what should or should not be included in our model legislation. In addition, Laura Binger, Kristin Bjella and Ryan Scofield took on the task of putting the group's consensus to paper in the form of the first draft of the model legislation and commentary to such model legislation provided here.
  - 3 Fulbright staff members Donna Hathaway, Michelle Hindmarch and Mary Vachon all helped to keep the lawyers and law students organized across several offices. I apologize to the others who worked quietly behind the scenes but have not been acknowledged here.
  - 4 In addition to providing what we hope will be a useful tool for state policy makers, this effort proved to be an enhancement to Fulbright & Jaworski L.L.P.'s summer associate program. The author intends to report on the details of the effort and the benefits for law firms and summer associates in a separate article.

## **Model Solar Access Code**

*(For Potential Use or Adoption by State Governments)*

### **I. PURPOSE**

It is the policy of the State to encourage the effective and efficient collection and use of solar energy for the purposes of supplementing, or reducing dependence upon, non-renewable energy sources and supporting the development of sustainable, economically-beneficial, renewable energy. This statute is intended to balance the significant public interest in harnessing solar power with the legitimate interests of property owners to use and enjoy their private property in diverse ways.

### **II. DEFINITIONS**

For purposes of this statute:

- A. **“Beneficiary”** means the owner or possessor of any real property for which a Solar Access Permit has been issued pursuant to this provision.
- B. **“Insubstantial Occultation”** means a shadowing of Skyspace by one or more objects that reduces access to solar energy otherwise available to the relevant Solar Energy Collector during the protected Solar Access Hours by ten percent or less in the aggregate over the course of one year. For the purpose of illustration, Insubstantial Occultations may include, without limitation, those caused by utility poles, chimneys, wires, flagpoles, antennas, awnings, or tree trunks and branches.
- C. **“Skyspace”** means the space between a Solar Energy Collector and the sun which must remain unobstructed for a Solar Energy Collector to be exposed over its entire sunward surface to direct sunlight during the Solar Access Hours.
- D. **“Solar Access Hours”** means a period occurring each day corresponding to those hours between [three] hours before and [three] hours after the moment of time at which the sun is due south and in its highest position above the horizon over the course of a year at the site seeking solar access.
- E. **“Solar Access Permit”** means that permit issued in accordance with Subprovision IV.(C) hereof and providing the holder with certain rights to access direct sunlight.
- F. **“Solar Easement”** means a right, whether or not stated in the form of a restriction, easement, covenant, or condition, in any deed, will, or other instrument executed by any person for the purpose of ensuring or promoting exposure of a Solar Energy System to direct sunlight, where such easement is voluntarily created in writing by the owners, or agents of the owners, of the burdened estate with respect to identifiable benefiting properties.
- G. **“Solar Energy Collector”** means any component of a Solar Energy System that collects solar energy from direct sunlight or that otherwise must be exposed to direct sunlight for the associated solar energy device to function optimally. [Living plants and the arrangement of plants for traditional purposes, such as lawn, gardens and crops for human and animal consumption shall not be considered Solar Energy Collectors for the purposes of this act. Living plants and the arrangement of plants used for the heating or cooling of buildings or water, or producing electrical or mechanical power (e.g., the growing of algae for biofuels) may constitute Solar Energy Collectors in circumstances that involve innovative uses as based on the state-of-the-art as of the date of the passage of this act and such use serves the express purposes of this act.
- H. **“Solar Energy System”** means any device, design feature, material, or combination thereof that is capable of utilizing sunlight as an energy source for beneficial purposes, including but not limited to heating or cooling buildings, heating or cooling water, producing electrical or mechanical power by means of any combination of collecting, transferring, or converting solar-generated energy, or other energy-related processes.

### III. SOLAR EASEMENTS

- A. *Manner of Creation.* Any property owner may grant a Solar Easement in the same manner and with the same effect as a conveyance of an interest in real property. The easement shall be created in writing and shall be filed, duly recorded, and indexed in the office of the recorder of the county in which the easement is granted. The easement is valid only if it is in writing.
- B. *Nature.* The easement runs with the land or lands benefited and burdened and shall constitute a perpetual easement, except that an easement may terminate upon the conditions stated therein. The easement is transferable.

---

#### *Alternative Termination Provisions*

---

- Option 1.* The easement, rights, and privileges granted under this easement will cease and terminate on any substantial and permanent change of condition in the property containing the solar device, by which the Solar Energy System is (a) no longer used for producing energy for twenty years or more, or (b) permanently dismantled, removed, or abandoned by the grantee.
- Option 2.* Common law easement rules of the state apply to termination.
- Option 3.* The easement will run for a specified term of years, as stated in the written agreement between the parties.
- 

- C. *Timing.* A Solar Easement can be entered into before or after the Solar Energy System that it is intended to protect is installed.
- D. *Required contents.* To be effective any deed, will, or other instrument that creates a Solar Easement must include, but is not limited to:
1. a description of the real property subject to the Solar Easement and a description of the real property benefiting from the Solar Easement;
  2. a description of the vertical and horizontal angles, expressed in degrees and measured from the site of the Solar Energy System, at which the Solar Easement extends over the real property subject to the easement, or any other description which defines with reasonable specificity the three dimensional space, or the place and times of day in which an obstruction to direct sunlight is prohibited or limited;
  3. where the easement exists in relation to property boundaries and, if applicable, setbacks;
  4. to the extent that any particular structures, vegetation, or other physical elements (whether fixed or movable, existing or future) located (whether temporarily or permanently) on or over the burdened property such as to exist, in whole or in part, within the space identified by the easement per Subprovision III.(D)(2) hereof are not intended to be covered by the easement, such intent must be expressly stated, and any such structures, vegetation and other elements not clearly included within such an expression of intent shall assumed to be covered by the easement;
  5. any terms or conditions under which the easement is granted or may be terminated;

6. any provisions for compensation of the owner of the real property burdened by the easement.
7. if it is the intent of the parties that the encumbered estate must pay the benefiting estate in the event of interference with the enjoyment of the easement, those terms must also be stated.

E. *Sufficiency.* An easement containing the above provisions shall be assumed to be valid. [A model easement form accompanies this model statute in the form of Appendix A.]

#### **IV. SKYSPACE**

##### ***A. Planning and Zoning Authorization***

1. [Local governments] may adopt and implement provisions that provide for, and protect, access to direct sunlight through [ordinances, codes, land use plans, standards and/or regulations]. To accomplish these purposes, [local government provisions] may include:
  - a. incentives or requirements for the orientation of new streets, lots, and parcels; the placement, bulk, orientation, and use of new buildings and structures; the placement and bulk of vegetation; and the strength and orientation of roofs;
  - b. incentives, or requirements, for the use of restrictive covenants or Solar Easements in [new development plans]; and
  - c. other permissible use of land use controls.
2. Whether or not a local government adopts and implements provisions allowed for under Subprovision IV.(A)(1), when considering whether to grant variances from planning and zoning requirements, each [local government unit with authority to issue a variance from planning and zoning requirements] shall consider any significant adverse impact issuance of the variance would have on the solar access of neighboring properties.
3. The State [Department of Energy] shall actively encourage and assist efforts of [local governments] to protect and provide for solar access.

##### ***B. Solar Energy System Registration and Notification Service***

1. The owner, or prospective owner, of a Solar Energy System may register for a solar notification service with [the local building permit issuing agency]. The registration shall describe the Skyspace above nearby properties that, if obstructed, could shade the Solar Energy System's Solar Energy Collector. Such description shall (a) include such information as reasonably required by [the local building permit issuing agency] in order to be able to readily administer to its responsibilities under this Subprovision IV.(B); or (b), if such agency has not promulgated such requirements, be in a form and include such information to permit such agency to (i) readily determine in conjunction with the information typically included in applications for building permits received by such agency whether the permit would involve construction extending into the relevant Skyspace, and (ii) provide notice to the registrant of a pending building permit affecting the registered Skyspace. A description accurately setting forth the following information shall be deemed to satisfy option (b) of this Subprovision IV.(B)(1):
  - a. the registrant's name and address, and a legal description of the lot where the Solar Energy System is located or would be located;

- b. a legal description of all lots that the registrant wishes to fall within the registration process where construction could impair operation of Solar Energy System being registered, including the names and addresses of all owners of such lots as of the date the registration is filed;
  - c. a description of the location of the Solar Energy Collector (including the distance of such collector from the lot's boundaries and height of the collector above sea level) and the vertical and horizontal angles, expressed in degrees and measured from the site of the Solar Energy Collector which defines the relevant Skyspace.
2. If the issuance of a building permit would allow construction to extend into the Skyspace described for a registered Solar Energy System, the [local building permit issuing agency], then the agency shall place a hold on the issuance of the building permit until the time provided for below in Subprovision IV.(B) (3) expires; provided, however, that where such hold would be demonstrably inequitable or contrary to the public interest in the special circumstances of the particular permit, then the agency may decline to impose such hold. If any such hold is imposed, [the local building permit issuing agency] shall promptly notify the builder and the potentially affected registered Solar Energy System owner of such hold. If the agency declines to impose a hold, it shall promptly notify, in writing, the relevant registered Solar Energy System owner of the reasons therefore, as well as recommend to the applicant for the building permit that they, nevertheless, contact the registered Solar Energy System owner to discuss the parties respective concerns and interests.
  3. In the event of a hold, the builder and the solar owner shall have ten (10) working days from the date the builder and solar owner are notified to voluntarily negotiate a solar access easement. Subject to the exceptions set forth in Subprovision IV.(B)(4), during this time a building permit shall not be issued for any structure that could shade the registered Solar Energy System's Solar Energy Collector. The parties shall be deemed to have been notified on the earlier of the receipt of the agency notice of a hold or five days from the date notices have been placed in the mail to both the builder (at the address provided in the building permit application) and the Solar Energy System owner (at the address provided in the relevant registration).
  4. Following the ten-day negotiation period or upon (a) sooner resolution by the parties, or (b) the party seeking the building permit demonstrating that the registered Solar Energy System has been abandoned, [the local building permit issuing agency] shall issue the building permit subject to the agencies normal procedures, requirements and discretion with respect to other aspects of the application.
  5. [Local government units] shall have the authority to set and collect nominal Solar Energy System registration fees intended to recover all or part of the cost of administering Subprovision IV.(B).

### ***C. Solar Access Permit.***

1. ***Purpose.*** In order to promote opportunities for the use of solar energy and to insure maximum utilization of solar energy resources consistent with reasonable use of surrounding property, persons may obtain permits under this provision.
2. ***Limitations.*** No permit shall restrict use of other property beyond the extent reasonable to provide for the efficient and economical beneficial use of solar energy by the permittee, and beneficial use is the limit and measure of any right conferred by permit. Further, no permit shall issue so as to deny the reasonable use and enjoyment of adjacent properties.
3. ***Eligibility.*** Any owner or possessor of property, who has installed a Solar Energy System or who intends to install such a system within a year from the date of application, may apply for a permit if:

- a. the Solar Energy System does, or would reasonably be expected to, reduce the use of either (i) utility-grid supplied electricity, or (ii) electricity or hydrocarbon or carbon based fuel used for space heating or cooling, or water heating at the property site by at least the Threshold Amount. In the case of (i) the threshold amount shall be [30] percent of total utility-grid supplied electricity that otherwise would be expected to be used at the property site over the course of a typical year. In the case of (ii) the threshold amount shall be [30] percent of the electricity and hydrocarbon or carbon based fuel that otherwise would be expected to be consumed in the aggregate for the purposes of space heating or cooling or water heating over the course of a year; and
  - b. the applicant attempted and failed to negotiate a Solar Easement with all owners of properties that would be affected by issuance of a permit.
4. **Protection.** When an eligible Solar Energy System is installed on a lot and a Solar Access Permit has been issued, accessory structures or vegetation on another lot shall not be located so as to block the Solar Energy Collector's access to direct sunlight.
5. **Exemptions.** The protection provided under a Solar Access Permit shall not extend to:
- a. vegetation greater than 15 feet in height or structures existing at the time of issuance of a solar access permit;
  - b. any portion of a Solar Energy Collector that is located so as to be shaded during the Solar Access Hours by a hypothetical 12-foot high obstruction located on the lot line;
  - c. any structure in existence on the date of issuance of a Solar Access Permit (a structure shall be deemed to be in existence as of the date of issuance of a permit authorizing its construction, provided construction of such structure is completed within a reasonable period of time under the circumstances);
  - d. any Insubstantial Occultation of Skyspace, as defined in this statute;
  - e. unavoidable temporary obstructions of Skyspace necessitated by construction activities or other necessary and lawful purposes to the extent that they do not exceed ten days in any three month period and thirty days in any year; and
  - f. any obstruction of an otherwise protected Skyspace by another Solar Energy System that would provide a demonstrably greater net energy savings than a pre-existing Solar Energy System, provided that, prior to the construction of the obstructing Solar Energy System, the owner of the Solar Energy System obstructing the pre-existing Solar Energy Collector compensates the owner of the pre-existing Solar Energy Collector in an amount equal to 110% of the lesser of (i) the original cost of the pre-existing Solar Energy System less depreciation calculated on a twenty-year straight line basis, plus the cost of removal, less scrap value, and (ii) a reasonable estimate of the net present value of the energy expected to be produced (in the absence of the obstruction by the new Solar Energy System) over the remaining life of the pre-existing Solar Energy System adjusted for the expected costs of maintaining such system, where the initial burden of producing evidence as to the amount of compensation required shall be on the owner of the pre-existing Solar Energy System.

In the event that the new Solar Energy System would only partially obstruct the pre-existing Solar Energy Collector such that it would be commercially reasonable to continue to operate the pre-existing system, then the amount of compensation due under this provision shall be prorated by multiplying the compensation as determined above by the difference between one (1) and the quotient of (iii) a reasonable estimate of the net present value of the energy that would be

produced by the partially obstructed Solar Energy System over its remaining life divided by (iv) a reasonable estimate of the net present value of the energy expected to be produced (in the absence of the obstruction) over the remaining life of the pre-existing Solar Energy System. The burden for making a prima facie case that continued operation of the pre-existing Solar Energy System would be commercially reasonable shall be on the owner of the new Solar Energy System. Any dispute between the owner of the proposed and the pre-existing Solar Energy Systems shall be resolved through the use of an arbitrator appointed by [the local building permit issuing agency] and paid for by the party that fails to prevail in the dispute. Should the arbitrator determine that the appropriate amount of compensation under this provision is an amount other than that proposed by either party, then the responsibility for paying for the arbitrator shall fall upon the parties in proportion to the amount by which each of the parties proposals differed from the amount decided by the arbitrator.

If the owner of the existing Solar Energy System (v) agrees to relocate the Solar Energy Collector of such system to avoid impacts from the new Solar Energy System or (vi) relocates the existing system in such fashion, then the owner of the existing system shall be subject to a ceiling on compensation of 150 percent of the cost of relocating such system. Under such circumstances, the owner of the existing Solar Energy System shall refund any amounts previously paid to such owner pursuant to the other provision of this Subprovision IV.(C)(5)(f) in excess of such ceiling, such refund to be made within 60 days of placing the Solar Energy System back into service after its has been moved from its original location.

6. *Permitting Procedure.*

- a. *Registration.* The owner, or prospective owner, of an existing Solar Energy System may register for a Solar Access Permit with [the local building permit issuing agency].
- b. *Application Requirements.* Any application shall include, but not be limited to the following:
  - i. the applicant's name and address, the name and address of the owner of the site on which the Solar Energy System is, or is to be, located, and a legal description of such site;
  - ii. a statement by the applicant that the Solar Energy System is already installed at the site to which the Solar Access Permit is to apply, or that the applicant intends to install and place into service such a system at the site specified in the application within one year of the issuance of the permit and has the permission of the property owner to locate such Solar Energy System on such lot;
  - iii. a statement by the applicant that he has attempted and failed to negotiate a satisfactory Solar Easement on a voluntary basis with all owners of properties that would be affected by the issuance of the Solar Access Permit being sought;
  - iv. a description of all lots that may be affected by the permit, including the names and addresses of all owners of such lots and survey plats or other accurate drawings showing lot lines, dimensions, and topography of the lot on which the solar energy system is or will be located and all surrounding properties that are intended to be subject to the permit;
  - v. a description of the vertical and horizontal angles, expressed in degrees and measured from the site of the Solar Energy System which, constitutes the Skyspace;
  - vi. a brief description of all existing vegetation, objects and structures, wherever located, that will, or may in the future, shade the Solar Energy Collector, together with a basic map or drawing showing their location (in relation to the Solar Energy Collector) to the extent practicable, such

- map or drawing shall be drawn to scale and include an indication of the direction to true or magnetic north;
- vii. information showing that the applicant has made a reasonable effort to design and locate the Solar Energy System so as to minimize the impact it will have on use and development on nearby land as currently zoned;
  - viii. a statement describing the beneficial use to which solar energy is or will be applied and certifying the peak and expected annual average energy capacity of the system (as installed at the site) in BTUs or BTU equivalents and its reasonable life expectancy;
  - ix. an analysis showing on an annualized basis either: the expected use of utility-grid supplied electricity at the site, with and without the Solar Energy System, or the expected aggregate electric and hydrocarbon and carbon based fuel consumption for space heating and cooling and water heating at the site, with and without the Solar Energy System;
  - x. the then current names and addresses of all owners of lots that may be affected by the permit.
- c. **Public Notice.** The [local building permit issuing agency] shall provide public notification pursuant to [its procedures for public notice].
  - d. **Permit issuance.** The [local building permit issuing agency] shall issue a Solar Access Permit if the application complies with the requirements of this subprovision taking into account any additional conditions or restrictions imposed pursuant to Subprovision IV.(C)(5)(g).
  - e. **Appeals process.** The decision may be appealed to the [zoning appeals board] pursuant to its appeals procedures. The [zoning appeals board] shall provide public notification of the hearing pursuant to its procedures for public notice.
  - f. **Permit issuing criteria.** In order to issue a permit, the approving authority must find that each of the following requirements has been met:
    - i. The applicant meets the eligibility standards of paragraph (2) of this subprovision;
    - ii. The applicant has made a reasonable effort to design and locate the Solar Energy System so as to minimize the impact it will have on use and development on nearby land as currently zoned. The fact that an alternate design or site may be more expensive does not necessarily establish that the applicant's failure to select that alternate design or site is reasonable. In making this finding, the approving authority may consider the relative burdens to be imposed on the applicant by an alternative as compared to burdens on other land owners that would be avoided through such alternative;
    - iii. Issuance of the permit is consistent with reasonable use and enjoyment of nearby land, excluding landscaping considerations. Issuance of the permit will be presumed to be inconsistent with reasonable use and enjoyment of nearby land if issuance would prevent any affected property owner from erecting, consistent with legal requirements, a structure of a size, character, and usefulness reasonably typical of those in existence on similar lots subject to the same zoning requirements located within one-fifth mile of the lot in question. However, nothing in this subprovision prohibits issuance of a permit only because it would impose requirements on a neighboring lot owner that are more restrictive than the height or setback requirements that would otherwise apply, if reasonable use and enjoyment of such lot is preserved; and

- iv. Issuance of the permit is consistent with reasonable landscaping of nearby land. In determining consistency, the board shall consider the need for any additional landscaping in the future, including any energy conservation value that such landscaping may have.
  - g. *Conditions of Approval.* The [local building permit issuance agency] may grant Solar Access Permits subject to such terms and conditions as it finds just and equitable.
  - h. *Records.* The [local building permit issuance agency] shall register the Solar Energy System for the Solar Registration and Notification Service and maintain complete records of all Solar Access Permits that have been issued and shall make them readily available for public inspection.
  - i. *Expiration of permit.* The [local building permit issuance agency] shall specify the term of each Solar Access Permit, which shall be for the reasonable useful life expectancy of the particular Solar Energy System, as determined by the Solar Access Permit issuing agency, or twenty years, whichever is shorter. No earlier than one year prior to the expiration of a permit, it may be renewed in the same manner as new permits are issued.
  - j. *Obligation to Update Permit Information.* If a permit is issued on the basis of a Solar Energy System that has yet to be installed, then within ninety (90) days of placing the Solar Energy System into initial operation the permit holder shall provide the [local building permit agency] with an updated estimate of the expected energy savings for the Solar Energy System as installed for the purposes of confirming that the eligibility criteria set forth in Subprovision IV.(C)(3)(a) have been met. If the permit holder fails to so update such information or such information fails to demonstrate that the system, as installed, meets such eligibility criteria, the permit shall be deemed to be revoked without prejudice to reapplying for a permit.
  - k. *Solar Energy System Modifications.* A permit holder may seek to have a Solar Access Permit modified to reflect modifications to a Solar Energy System in the same manner as an original permit is obtained. Any additional burdens on other properties under a modified permit reflecting such modifications shall be subject to Subprovision IV.(C)(5) exemptions based on the date of application for the modified permit.
7. *Enforcement.*
- a. A Solar Access Permit is enforceable by the Beneficiary, if and only if the Solar Access Permit is properly reflected in the real property records of the office of the recorder of the county in which the Solar Access Permit is issued.
  - b. On sale, lease, or transfer of the lot on which the protected Solar Energy System is located, the right to enforce its terms passes to the beneficial user of the system.
  - c. No property owner shall be required to remedy shading of a Solar Energy Collector unless such collector is a part of a protected Solar Energy System that is installed and would be capable of greater output in the absence of such shading.
  - d. Insubstantial Occultations shall be allowed.
  - e. No [proposed development/building permit] may be approved for any structure that would violate the terms of a Solar Access Permit.

8. ***Impacts of Vegetation on an Issued Solar Access Permit.*** Upon application of a Beneficiary to the Solar Access Permit issuing agency, vegetative shading may be remedied to the extent necessary to comply with the terms specified in a Solar Access Permit. However, no vegetation in the ground and growing to a height of greater than fifteen feet at the time the permit application is filed may be ordered removed or trimmed. After notice to at least the Beneficiary and the vegetation owner, the [zoning appeals board] shall hold a hearing and, based on evidence submitted by any interested party, may issue any necessary order and specify the time in which actions thereunder must be performed. Absent unusual circumstances, the cost of remedying shading from vegetation not in the ground or of a height of less than or equal to fifteen feet above ground at the time the permit application is filed shall be borne by the vegetation owner. If an owner or possessor of real property who receives an order to remedy vegetative shading fails to comply within the specified time, the owner will be subject to remedies described in Paragraph (9) of this subprovision.
9. ***Remedies.*** The solar access protections provided in this provision may be enforced through proceedings in equity or other civil action to compensate a Beneficiary of a Solar Access Permit. A Beneficiary of a Solar Access Permit may be compensated by a property owner whose violation of this statute causes shading of the protected Solar Energy Collector. Compensation can include lost energy savings, Solar Access Permitting costs, and Solar Energy System installation costs. [Local governments] may set and collect civil fines not to exceed [\$1,000].
10. ***Revocation.*** The [local building permit issuance agency] shall have the power to revoke a Solar Access Permit, after notice and opportunity for hearing, upon the application of any party burdened by a Solar Access Permit and a showing that the Solar Energy System that is the subject of the permit has been out of operation for a period of at least eighteen (18) consecutive months.
11. ***Fees.*** Counties and municipalities shall have the authority to set and collect Solar Access Permitting fees reasonably designed to recover part or all of the costs of administering the Solar Access Permit program.

#### ***D. Planning***

[Local government units with responsibility for creating development plans] shall ensure that development plans meet the requirements of this subprovision. The physical elements of the development plan (e.g., buildings, circulation, open space and landscaping) shall be located and designed, to the maximum extent feasible, to protect access to direct sunlight for the future installation of Solar Energy Systems by including the following provisions:

1. ***Solar Orientation.*** New lots should be oriented to allow for maximum effective use of solar energy. A minimum of 70% of the lots less than fifteen thousand square feet in area in single- and two-family residential developments shall be oriented within thirty degrees of true east/west.
2. ***Respect for Skyspace.*** No proposed planned unit development may be approved for any subdivision that would violate the Skyspace protected by a Solar Access Permit issued in accordance with Subprovision (B) of this provision.
3. ***Buffer Zone.*** Where the proposed planned unit would otherwise be impacted by shade from a neighboring area, the planned unit should incorporate a buffer zone if necessary to avoid substantial shade impacts to the planned unit.

## V. LIMITS ON PROSCRIPTIONS

### A.

1. A covenant, restriction, or condition contained in any deed, contract, declaration, security instrument, or other instrument affecting the transfer or sale of, or any interest in, real property that prohibits, restricts, or has the effect of prohibiting or restricting the installation or use of a Solar Energy System will become void and unenforceable [ ] days after this legislation takes effect.
2. The adoption of a bylaw or exercise of any power by the governing entity of a homeowners' association, property owners' association, or condominium owners' association that prohibits, restricts, or has the effect of prohibiting or restricting the installation or use of a Solar Energy System will become void and unenforceable [ ] days after this legislation takes effect.
3. Any ordinance adopted by a local governmental unit for aesthetic purposes that prohibits, restricts, or has the effect of prohibiting or restricting the installation or use of a Solar Energy System will become void and unenforceable [ ] days after this legislation takes effect.

### B. Subprovision (A) shall not apply to:

1. aesthetic provisions that impose reasonable restrictions on the dimensions, placement, or external appearance of a Solar Energy System and that:
  - a. do not:
    - i. significantly increase the cost of the Solar Energy System; or
    - ii. significantly decrease the performance of the Solar Energy System; or
  - b. allow for an alternative Solar Energy System of comparable cost and efficiency;
2. bona fide health or safety requirements, required by an applicable building code or recognized electrical safety standard, for the protection of persons and property;
3. local governmental protection of structures designated for historical preservation;
4. for purposes of Subprovision V.(B), a significant increase in cost is a cost increase of at least the lesser of 10% or [ ] dollars above the cost of the system without the provision; or
5. for purposes of Subprovision V.(B), a significant decrease in performance is a performance decrease of 10% or more below the maximum solar potential of the system over the course of any calendar year as compared to how the system would be installed in the absence of the provision.

### C. This statute shall not be construed to confer upon any property owner the right to place any Solar Energy System on property that is:

1. owned by another person; or
2. a limited common element or general common element of a common interest community.

### D. This statute shall not be construed to confer upon the owner of any property interest the right to place a permanent Solar Energy System on property that is:

1. leased, except with permission of the lessor; or
  2. collateral for a commercial loan, except with permission of the secured party.
- E. Whenever approval is required for the installation or use of a Solar Energy System, the application for approval shall be processed and approved by the appropriate approving entity in the same manner as an application for approval of an architectural modification to the property and action upon the application shall not be willfully avoided or delayed.
- F. Any entity that willfully violates Subprovision V. of this statute shall be liable to the applicant or any other party affected by such willful violation for actual damages occasioned thereby and an additional civil penalty of \$[ ].
- G. Notwithstanding other provisions contained herein, local governmental units may make no ordinance that unreasonably prohibits or has the effect of unreasonably prohibiting the installation or use of Solar Energy Systems on structures that have been designated for historical preservation by the local, state, or federal body with the relevant authority to make such a designation. An unreasonable prohibition is a prohibition on the installation or use of a Solar Energy System which, if installed or used, would not (1) alter the historical authenticity of the appearance of the underlying structure as viewable from areas accessible to the general public, or (2) prevent the timely collecting of historical information or artifacts from the site of the proposed Solar Energy System.
- H. Any such ordinance already in existence that could not be newly created without violating Subprovision (V)(G) will become void and unenforceable as of [ ] days after the date at which this statute becomes effective.
- I. A county or municipality may reasonably require individuals to acquire permits for the installation or use of a Solar Energy System, and may charge permit fees reasonably related to the costs incurred in issuing such permits.

## **VI. ENFORCEMENT**

Notwithstanding remedies described elsewhere in this statute, this statute may be enforced by injunction or proceedings in equity or other civil action in \_\_\_\_\_ court. The prevailing party shall be entitled to reasonable attorney's fees and costs.

**APPENDIX A*****Model Solar Easement Form***

Agreement made, \_\_\_\_\_ [date], between \_\_\_\_\_ [name of grantor] of \_\_\_\_\_ [address], “grantor,” and \_\_\_\_\_ [name of grantee] of \_\_\_\_\_ [address], “grantee.”

1. Grantor is the owner of certain real property commonly known as \_\_\_\_\_ [street address], here referred to as the servient tenement, and more particularly described as follows: \_\_\_\_\_ [set forth legal description].
2. Grantee is the owner of certain real property commonly known as \_\_\_\_\_ [street address], here referred to as the dominant tenement, and more particularly described as follows: \_\_\_\_\_ [set forth legal description].
3. Grantee desires to acquire certain rights in the servient tenement. The parties agree as follows:

- A. Grant of easement. In consideration of the payment of \$\_\_\_\_\_ [or other adequate consideration (in the form of [ ])] from grantee, receipt of which is acknowledged, grantor here grants to grantee an easement as described below.
- B. Character of easement. The easement granted in this instrument is appurtenant to the dominant tenement.
- C. Description of easement. The easement granted in this instrument is a right of receiving direct sunlight across the servient tenement for a Solar Energy System located on the dominant tenement.
- D. Location of easement. The solar easement is located as follows: \_\_\_\_\_ [a description of the vertical and horizontal angles, expressed in degrees and measured from the site of the solar energy system’s solar energy collector, at which the solar easement extends over the real property subject to the easement, or any other description which defines the three dimensional space, or the place and time of day in which an obstruction to direct sunlight is prohibited or limited].

OR

The location of the easement is described in the diagram attached as Exhibit \_\_\_\_ and incorporated by reference.

- E. Restraints imposed by easement. The solar easement granted here imposes restrictions on all vegetation and structures on the servient tenement that would otherwise interfere with direct sunlight reaching the solar energy collector sited on the dominant tenement by passing through the space described herein [provided, however, the restrictions do not apply to \_\_\_\_\_ [if applicable, list the vegetation, structures, and other objects that are not subject to the easement]].
- F. Boundaries and setbacks. In relation to boundaries and setbacks on the property, the solar easement \_\_\_\_\_ [list any ways in which the easement will affect, or relates to, boundaries and setbacks].
- G. Termination. The easement, rights, and privileges granted under this easement will cease and terminate on any substantial and permanent change of condition in the dominant tenement, by which the Solar Energy System is not used for producing energy for twenty years or more, or that system is permanently dismantled, removed, or abandoned by the grantee.

OR

Termination. The easement, rights, and privileges granted under this easement will cease and terminate after \_\_\_\_ number of years.

OR

Termination. The easement runs in perpetuity absent the existence of conditions triggering termination  
Conditions causing termination are \_\_\_\_\_.

OR

Termination. Common law easement termination rules in the state apply.

- H. Interference. In the event of interference with the easement provisions, the grantee shall be entitled to reasonable compensation.
- I. Entire agreement. This instrument contains the entire agreement between the parties relating to the rights granted and obligations assumed under this instrument. Any oral representations or modifications concerning this instrument will be of no force and effect, unless there is a subsequent modification reduced to writing, signed by the parties and recorded in the same fashion as the original easement.
- J. Attorney fees. In the event of any controversy, claim, or dispute relating to this instrument or its breach, the prevailing party shall be entitled to recover reasonable expenses, attorney fees, and costs.
- K. Binding effects. This agreement shall bind and inure to the benefit of the respective heirs, personal representatives, successors, and assigns of the parties.

Dated: \_\_\_\_\_

Printed name of grantor: \_\_\_\_\_

Signature of grantor: \_\_\_\_\_

Printed name of grantee: \_\_\_\_\_

Signature of grantee: \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

The foregoing instrument was acknowledged before me on \_\_\_\_\_ [date], by \_\_\_\_\_ [name of person or party].

Signature of person taking acknowledgement: \_\_\_\_\_

## APPENDIX B

### *Commentary on Selected Language in Model Text*

#### *Definitions*

**“Beneficiary”**: The definition for “beneficiary” is derived from Boulder, Colo., Rev. Code § 9-16-1. Use of this term helps to clarify the interests of parties in the context of Solar Access Permitting.

**“Insubstantial Occultation”**: This legislation defines an “Insubstantial Occultation” in relation to the reduction in energy availability. This term identifies certain minimal obstructions to Skyspace otherwise protected by a Solar Access Permit that are allowed under provision (IV)(C)(4)(d). The definition emulates the approach taken by the city of Boulder. *See* Boulder, Colo., Rev. Code § 9-16-1. Some solar access legislation includes exhaustive lists of the types of objects that produce shadows that are considered to constitute Insubstantial Occultations. *See* Denver, Colo., Municipal Code §59-125. The listing approach has the advantage of ease of administration, but is under-inclusive in that it may not provide an exception for an object that only slightly shadows a solar collector. The approach is also over-inclusive in that it would except an over-sized object that fits into one of its categories, but significantly impairs the efficiency of a solar collector.

The model statute specifies that the ten percent energy reduction is to be computed on an annual basis. This allows an Insubstantial Occultation to include both large obstructions that may block direct sunlight only during certain times of the year and smaller obstructions that block direct sunlight most or all of the year. For example, a low storage shed might occult well over ten percent of a Solar Energy Collector on the winter solstice while casting no shadow on the collector most days of the year. In contrast, a group of tall flagpoles might occult a smaller portion of a collector on the winter solstice, but cast a similar shadow throughout most or all of the year. Either type of obstruction would be permissible as long as the total impact remained below the annual limit. This differs from most other approaches that measure a breach at any one moment rather than in aggregate over time. *See, e.g.*, Cal. Pub. Res. Code § 25982. The percentage of protected solar energy loss could be evidenced by system performance data or degree of shadowing on a collector.

**“Skyspace”**: The “Skyspace” definition is derived from the definition of “Solar Skyspace” found in Neb. Rev. Stat. § 66-907 (2009).

**“Solar Access Hours”**: The model statute defines “Solar Access Hours” in relation to the time that “the sun in its highest position above the horizon” rather than in relation to clock noon. This is because the effectiveness of a Solar Energy System depends on, among other things, the sun’s position in the sky relative to the collecting surface of the system, rather than any prevailing time convention. Local solar noon does not occur at the same clock time everywhere within a particular time zone. Indeed, local solar noon does not occur at the same clock time at a single location from day to day. (The clock time for solar noon for specific locations and dates can be calculated using one of the National Oceanic and Atmospheric Administration tools located on line at <http://www.srrb.noaa.gov/highlights/sunrise/sunrise.html> and <http://www.esrl.noaa.gov/gmd/grad/solcalc/>.) For ease of administration, states may wish to define Solar Access Hours relative to local standard time. However, in doing so, it would be advisable for each state to take into account its longitudinal position within a time zone. States that lie predominantly to the western side of a time zone may wish to skew the Solar Access Hours so that they are centered on a time somewhat after clock noon. In contrast, states to the eastern side of a time zone would skew Solar Access Hours to bracket a time before clock noon.

The position of the sun in the sky also varies according to latitude and seasonal factors, such that at a given hour at a particular location at one latitude sunlight will strike a collector at a different angle than at: (1) a location at another latitude at the same time on the same day; and (2) the same location at the same time on a different day. Because of these differences, the cost-benefit analysis of providing Solar Access Hours will vary from location to location, and the date(s) on which shading is examined is critical. Generally, areas in the northern part of the country would require a greater

number of Solar Access Hours if the goal is to achieve Solar Energy System economics more comparable to locations located to the south. However, due to the lower sun angles included in extended Solar Access Hours, the additional energy that can be produced is not proportional to the increase in the Solar Access Hours period and the incremental burden on neighboring properties may outweigh any benefits that can be achieved. One compromise might be to vary Solar Access Hours seasonally. In northern latitudes, more hours of protection might be reasonable during summer months when the sun travels through a higher arc in the sky. In short, states should individually consider whether the six hour protection period is appropriate for their location. Some solar access protection provisions provide four hours of protection during the day. See Cal. Pub. Res. Code § 25982, Boulder, Colo., Rev. Code § 9-9-17 (d) (2) (B) (i). Others provide six hours of protection. See Or. Rev. Stat. § 227.190 (3). Pattonsburg, Missouri protects solar access for five hours. Pattonsburg, Mo. Municipal Code § 14-105 (A) (1996) (between 10:00 am and 3:00 pm). Further, protecting a Solar Energy Collector from shading for a period of hours on the summer solstice (when the sun is highest in the sky and produces shorter shadows) would constitute substantially less protection than a standard tied to shadowing on any day of the year (which would include the winter solstice, when shadows are the longest).

Other location specific considerations could also justify adjusting Solar Access Hours. For example, during the dawn-to-dusk period, heating loads tend to be greater in the morning hours, while cooling loads tend to be greatest in the afternoon hours. Areas that have greater heating needs may wish to adopt asymmetric Solar Access Hours that include more hours before noon, than after. Areas with greater cooling needs may wish to adopt Solar Access Hours that favor the post-noon period.

**“Solar Easement”:** The definition of “Solar Easement” is based on Minnesota law, which is relatively clear and allows easements to be in a variety of forms. Minn. Stat. § 500.30 (2009). The most significant departure from Minnesota’s formulation is elimination of the language stating an easement “should be negotiated” in favor of language requiring any easement to be voluntarily created.

**“Solar Energy Collector”:** “Solar energy collector” defines the specific components of a Solar Energy System that collect sunlight and must be exposed to sunlight for the Solar Energy System to function effectively. We have excluded plants used in traditional ways from the definition of Solar Energy Collector in order to avoid lawns or other valued uses of plants that do not serve the purposes of this act from falling within the definition. We have not excluded all plants in order to allow Solar Energy Systems that rely on innovative biotechnology to benefit from this legislation. While we are unaware of any such systems that are practicable on the residential scale at this time, the rapid pace of technological advancement in this area warrants a forward looking approach.

**“Solar Energy System”:** The terms “Solar Energy System,” “solar energy device,” or “solar collector system” are currently employed by numerous states and municipalities as terms of art within their respective solar energy statutes. See, e.g., Md. Code Ann., [Real Prop.] § 2-119 (3) (2009); Colo. Rev. Stat. § 38-32.5-100.3 (2) (2009); Cal. Pub. Res. Code § 25405.5(a)(3). We recommend use of the term “Solar Energy System” because it makes clear on its face that the term may include an arrangement of multiple devices that work together to harness sunlight for useful purposes and that the term applies to more than just the portion of the equipment upon which sunlight must fall for such energy to be put to use. The definition is intended to encompass both singular units (i.e., a window) and concatenated “systems” (i.e., photovoltaic cells along with any attendant wiring and conversion technology). It is also intended to encompass a broad range of other “systems” including, but not limited to, solar-powered refrigeration and passive solar devices, such as skylights, glazed walls, Trombe walls, and clotheslines. States may wish to consider whether they wish to protect such a broad range of facilities from the Limits on Proscriptions found in Subprovision V of the model legislation. For example, some may conclude that uniformity of appearance of the windows in a condominium tower is a more important consideration than allowing individual unit owners the option of installing more efficient windows that differ visually from their neighbors’ windows. (In many cases, this particular example will not apply because the exteriors of condominium units, including windows, are common elements under the control of the condominium association.)

## EASEMENTS

Many of the state statutes for solar easements currently in existence are quite short and offer limited detail. The model statute's greater detail is intended to reduce ambiguity and litigation, without undue wieldiness.

### (A) Creation

Subprovision III.(A): The easement must be in writing and recorded in order to reduce confusion as to the effectiveness of the easement. It also puts the general public and potential property purchasers on notice of any easements on the property. This provision was modeled from Minn. Stat. § 500.30 (2) (2009).

### (B) Duration/Termination

Subprovision III.(B): It is useful for solar easements to run in perpetuity because it avoids the need for periodic renegotiation of the easement and minimizes administrative record keeping burdens. However, the easement may terminate upon the wishes of the parties as stated in the easement. This allows for termination if either party prefers the easement to be short term, or if this is a condition that the burdened property owner insists upon to grant an easement at a cost acceptable to the owner of the dominant estate. The flexible nature of this provision allows the owners of the burdened and benefiting estates to balance the need of the burdened estate owner to provide for additional development of his property and ensure the future marketability of his property with the need of the benefiting estate owner to ensure solar access for a period of time regardless of the transfer of ownership of the burdened estate.

Historically, some states include a termination provision stating that the easement will terminate upon abandonment of the Solar Energy System. The provision allowing termination of the easement on abandonment or lack of use is to prevent an unused easement from preserving an unnecessary burden on a property owner, that may make it difficult to sell an existing home, improve a lot or grow vegetation. This provision could be added to modify the general rule that the easements run in perpetuity. A termination provision could also say that common law easement rules of the state apply to termination. An easement can also be set to run for a term of years, as determined by the parties. Which termination option to use should be decided by each state. In order for there to be action constituting abandonment, many states require physical manifestation. Such manifestation could be when the grantor of the easement builds something inconsistent with the easement and the grantee does not object within a reasonable time, or when the grantee builds something else in the place of the Solar Energy System, thus prohibiting the grantee from taking full advantage of the easement. This provision was modeled, in part, on Minn. Stat. § 500.30 (2009).

### (C) Timing

Subprovision III.(C): The model statute intentionally allows easements to be created either before or after the Solar Energy System is installed. Providing for the creation of a Solar Easement before investment in a Solar Energy System allows a property owner greater certainty with respect to solar access before spending money on the equipment and installation and avoids bestowing undue negotiation power upon the estate owner from whom the easement is being sought. While this is likely to be the normal way of proceeding, at times reasons may arise for obtaining the easement only after the Solar Energy System is installed. For example, a Solar Energy System may have been installed prior to passage of the statute, a landowner may subdivide his property after installing a Solar Energy System and wish to sell a portion of the property subject to a Solar Easement, or the ownership of a neighboring property may change hands opening a new possibility to obtain a Solar Easement on terms that were not previously available.

### (D) Required Contents

Subprovision III.(D): Each item required for a valid Solar Easement has a different rationale, and we address each individually below.

Subprovision III.(D)(1): This subprovision requires a valid legal description of both properties in order for the arrangement to be clear.

Subprovision III.(D)(2): In order to adequately protect the ability of the Solar Energy System to collect solar energy, this subprovision requires the easement to identify the zone of protection. The property owner must ensure that direct sunlight is not blocked from passing through the protected zone to the Solar Energy Collector during specified periods of the day. The protected zone can be described in terms of angles or times of day that the Solar Energy Collector will not be shaded. Either description can be used as long as it is adequately descriptive. This provision was modeled from Minn. Stat. § 500.30 (3) (b) (2009).

Subprovisions III.(D)(3)-(4): These subprovisions are included for the sake of completeness, in case either property has special features that need to be addressed in the easement. These provisions are not required for a valid easement. These subprovisions are inspired by Fla. Stat. ch. 704.07 (2009) and Md. Code Ann., [Real Prop.] §2-119 (2009).

Subprovision III.(D)(5): This subprovision details the circumstances under which the easement is to terminate, based on the wishes of the parties at the time the easement was created. The parties may contract for different lengths and may arrange for different payments based on the length of the easement. This provision could be important for a homeowner who wants the easement to terminate after a term of years, or after the happening of a particular occurrence. This provision is modeled upon Minn. Stat. § 500.30 (2009).

Subprovision III.(D)(6): Generally, one homeowner will be burdened by the easement. In order for there to be consideration in the exchange, money will often change hands. This provision provides for a record of all monetary exchanges. If no money will be exchanged, that should be clearly stated in the easement. This provision is modeled upon Minn. Stat. § 500.30 (2009).

## **SKYSPACE**

### **(A) Planning and Zoning Authorization**

Subprovision IV.(A)(1): The term “local governments” appears in brackets, because the appropriate level or levels of local government will vary from state to state. For example, states may wish to parcel out authority for solar access protection to counties, municipalities, zoning authorities, local planning boards or other local government units or to more than one of these units. Similarly, the terms “ordinances, codes, land use plans, standards and/or regulations” and “local government provisions,” along with “Local government units with authority to issue a variance from planning and zoning requirements” and “Department of Energy” later, appear in brackets because the appropriate terminology will vary from state to state.

The list of measures that local governments may adopt is not an exhaustive list of all possible measures.

Subprovision IV.(A)(2): This subprovision is intended to require impacts to solar access to be considered in variance proceedings. Under this subprovision, the decisional body is not limited to affording the express protections provided by other provisions of the model legislation, rather a balance should be struck between the benefits of the variance and the negative impacts on solar access. This subprovision is modeled upon Crested Butte. *See* Crested Butte, Colo. Municipal Code. § 15-2 (2008).

Subprovision IV.(A)(3): This subprovision recognizes the importance of state level support for local efforts to protect solar access. Terms that may vary from state to state are bracketed. This subprovision is modeled upon Or. Rev. Stat. § 227.190 (2).

### **(B) Solar Energy System Registration and Notification Service**

Subprovision IV.(B): The intent of this provision is not to provide absolute protection to a Solar Energy System owner, but merely to afford such owner an opportunity to reach a voluntary agreement with a party building on neighboring property that would avoid or reduce impacts to the Solar Energy System. This subprovision on Solar Energy System Registration and Notification Service resembles the approach taken by Fort Collins, Colorado. Fort Collins, Colo. Municipal Code. § 5-1 (2007). An owner of a Solar Energy System can benefit from the Solar Energy Registration and Notification Service, regardless of energy contribution. The eligibility requirements are less stringent and the application requirements less specific than those set forth in other sections of this model statute that relate to Solar Access Permitting or creation of a Solar Easement. This is appropriate, because the notification service imposes a less severe burden on neighboring landowners than Solar Access Permits or Solar Easements.

The Solar Energy Registration and Notification Service should be easy to use for all parties, including the issuing government agency. This subprovision gives the “local building permit issuing agency” (bracketed in legislation because the proper nomenclature will vary by state) responsibility for implementing the registration and notification service. Because many Solar Energy Systems will require permits for construction, offering registration at the same time allows Solar Energy System owners to take advantage of a consolidated process. Also, the building permit issuing agency will have ready access to records when issuing building permits. Because there are few specific application and review requirements, even cost-conscious and smaller local governments should find the registration and notification service practicable to provide. For example, rather than keeping detailed records of types of Solar Energy Systems and angles measuring the exact dimensions of Skyspace, a local government could simply maintain lists of properties with registered Solar Energy Systems and properties with Skyspace requiring notification.

Subprovision IV.(B)(1)(c): The location of the Solar Collector on a particular plot of land is important in determining the relevant Skyspace. Height is a key aspect of the location, as a rooftop Solar Energy Collector, all other things being equal, would result in Skyspace that does not extend as low over neighboring properties as a ground mounted Solar Collector. In this regard it should be noted that sea level is not a constant and various conventions are in use that use different base levels as a starting point. Any convention should be acceptable as long as it is clear which convention is used in providing the information required in the registration. States may wish to simplify this matter by requiring registrants to use a particular convention, or any forms used for the registration process may indicate that the convention being used should be stated in the registration.

Subprovision IV.(B)(4): This subprovision allows a building permit to be issued upon the earlier of an agreement being reached by the parties and the passage of the ten working day negotiation period. In addition, where a registered Solar Energy System has been abandoned, this provision allows for the building permit applicant to avoid the ten day waiting period.

Subprovision IV.(B)(5): Local governments may fund the implementation of this provision through the collection of registration fees. This subprovision waives registration fees for Solar Easement protected systems in order to provide an incentive to Solar Energy System owners to pursue the private negotiation of voluntary Solar Easements. We envision Solar Energy System owners may wish to avail themselves of the Solar Energy Registration and Notification Service even in circumstances where owners have protected their systems with Solar Easements. The combined use of a Solar Easement and the Solar Energy Registration and Notification Service is desirable because, in such a case, the burdened estate has entered into a voluntary agreement with the owner of the Solar Energy System, while at the same time the likelihood of an inadvertent violation of a Solar Easement will be reduced. For example, if the burdened estate changes ownership, the new owner may not fully appreciate the implications of a pre-existing Solar Easement. The notification service provides an additional opportunity for the new owner to identify this issue before proceeding with construction that would potentially violate the Solar Easement.

### **(C) Solar Access Permit**

The preferred mechanism for solar access protection is the Solar Easement, because parties voluntarily negotiate the terms and conditions, including any compensation, and there is a lower burden on local governments to implement protections. However, where a neighboring property owner cannot successfully bargain for a Solar Easement and the threshold criteria for benefits from the Solar Energy System are met, the beneficiary of a Solar Energy System may apply for a Solar Access Permit. Issuance of a Solar Access Permit may impose significant involuntary burdens on individuals owning land adjacent to another parcel of land upon which a Solar Energy System is situated. Therefore, the eligibility criteria, and procedures for application, consideration, appeal, and enforcement are more specific, thorough, and burdensome than those for other sections of this statute. The availability of the Solar Access Permit may create a landscape more conducive to the negotiation of Solar Easements, because there are advantages to both the benefiting and burdened estate owners of pursuing a Solar Easement. The benefiting estate owner will need to compensate the burdened estate to obtain an easement, but will find that the easement route is simpler, does not require the Solar Energy System to meet performance standards and may offer superior protection. The burdened estate owner may yield greater rights to the benefiting estate owner, but will be compensated for doing so. In some cases, a Solar Easement might be crafted to be less restrictive to the burdened estate.

The general framework and much of the specific language used in this subprovision closely follows the city of Boulder's permitting system. *See* Boulder, Colo., Rev. Code § 9-9-17 (2009). However, the city of Boulder's permitting system is part of a more comprehensive scheme of solar access protections that preserve solar access for all property owners within specific areas, regardless of whether a Solar Energy System exists on the property at this time. The permitting system acts as a supplement for situations where the basic level of protection is insufficient. States wishing to pursue a more aggressive solar access protection strategy may enact or require local governments to enact building setback, height, "bulk plane," or "solar fence" provisions to provide protection to all properties. This preserves Skyspace for the future installation of Solar Energy Systems, but may impose constraints unnecessarily on property owners whose neighbors will never take advantage of the protected solar access.

Rather than adopting a universal, one-size-fits-all approach that grants solar access protection to real property regardless of the prospects of the owner of such property making beneficial use of solar energy, the model legislation empowers localities to adopt such protections on a basis best suited to the locality and provides a case-by-case path to solar access for every property owner wishing to install a Solar Energy System where the benefits from the Solar Energy System are sufficient to justify burdening a neighboring estate. States may wish to adopt a different threshold based on their circumstances. For example, a southern state may find it appropriate to increase the minimum contribution toward heating or decrease the minimum contribution toward cooling that is deemed to be sufficient justification (so as to reflect the smaller heating load and greater cooling load that may be expected in that region) versus a state located to the north.

Subprovision IV.(C)(1): The statement of the purpose of this subprovision is based in part upon the lengthier statement of purpose found in Boulder, Colo., Rev. Code § 9-9-17 (h) (1).

Subprovision IV.(C)(3): Beneficiaries of Solar Energy Systems are eligible to apply for Solar Access Permits, but do not automatically gain a right to solar access for a system upon installation. Some jurisdictions do provide at least some level of automatic solar access protection upon installation of a Solar Energy System. *See, e.g.,* Cal. Pub. Res. Code § 25982. Eliminating the requirement to apply for a permit may alleviate some of the burdens on local governments associated with issuing permits. On the other hand, the permitting process promotes the creation of an adequate record regarding vegetation and structures in existence upon installation of a Solar Energy System and the attributes of the protected Skyspace. Most importantly, it establishes a process for balancing the burdens to a neighboring property owner against the benefit to a Solar Energy System Beneficiary.

Subprovisions IV.(C)(3)(a)-(b): Not every Solar Energy System will qualify for a Solar Access Permit. Because of the burden a Solar Access Permit can impose on neighbors of a Beneficiary, this protection can only be availed where the

energy contribution is significant. The thirty percent figure is a minimum for eligibility and to make measurement easier is measured relative to the type of energy provided by the Solar Energy System, rather than all types of energy used by a building or property as a whole. Subprovision IV.(C)(2)(b) reflects this statute's preference for the voluntary negotiation of Solar Access Permits .

Credit for displaced energy is given for all utility grid supplied electricity even though it is likely that a portion of grid supplied electricity will be produced by renewable or other resources that are as beneficial as solar energy. While not perfect, this approach simplifies the calculation and recognizes that the use of a distributed Solar Energy System tends to reduce the need for infrastructure upgrades (e.g., electric distribution and transmission facilities). States that adopt high renewable portfolio standards ("RPS") for retail electric suppliers (or if the federal government subsequently adopts a high national RPS) may wish to adjust the total amount of energy displaced upwards to ensure that the Solar Energy System is providing a benefit that justifies the burdens of a Solar Access Permit. However, to the extent Solar Energy Systems are displacing the use of renewable energy available on the grid, the implications of such displacement are difficult to generalize. In some cases, the displaced renewable generation will be consumed by other users, which in turn will displace non-renewable sources of power. In other cases, particularly during hours of peak solar energy production, other renewable resources might have to be backed down to balance generation with load – a situation that would call into question the desirability of encouraging the development of distributed solar energy resources. Credit is also granted for displacing the use of fossil fuels that would otherwise be employed to provide space heating or cooling or water heating.

We also call to the attention of those considering the merits of this model legislation, that throughout the draft solar receives positive credit if it displaces the use of hydrocarbon or carbon based fuels. This would include biomass, land fill gas and other renewable and sustainable fuels. Where lawmakers conclude that such fuels offer equal or greater benefit to solar energy, they may wish to narrow the fuels that are considered beneficial to displace. One way to do this would be to use the word "fossil" in place of the phrase "hydrocarbon or carbon-based."

Subprovision IV.(C)(4): This subprovision makes clear that Solar Access Permits protect Skyspace from shading by some structures, as well as vegetation. Compare Cal. Pub. Res. Code § 25980 (applying to trees and shrubs only). While the provision does provide protection from some structures, it should be noted that, as drafted, the protection only extends to "accessory structures". As such, the primary structure on a lot is not restricted by a existence of a Solar Access Permit held by another lot owner, but detached garages, carriage houses and guest cottages, etc. would be subject to the permit. Some states may find it reasonable to drop the "accessory" qualifier in order to apply the permit process to all structures. In the event that enactors of solar access legislation for a particular state conclude that the term "accessory structure" would benefit from a definition, a model to work from can be found at Boulder, Colo., Rev. Code § 9-16-1(c).

Subprovision IV.(C)(5): This subprovision circumscribes the broad protection described in the preceding subprovision. Most existing solar access provisions either protect all vegetation in the ground at the time of permit issuance or do not provide any across the board protections for vegetation. The model legislation follows the lead of the city of Ashland, Oregon, in seeking a balance with respect to this topic by exempting only vegetation (essentially trees) taller than fifteen feet in Subprovision IV.(C)(4)(a). See Ashland, Or. Municipal Code § 18.70.020(A). While some trees may grow vertically by more than two feet a year, others grow less than one foot. Given this variation, protecting vegetation that is greater than 15 feet in height is a somewhat loose proxy for trees that represent established features of a property worth protecting. The model legislation uses this formula because it is simple, and trimming or removing vegetation that is higher than 15 feet is generally more likely to make a substantial difference to the feel of a plot of land than trimming or removing lower lying vegetation. Lawmakers may wish to consider a different standard depending on growth rates of trees typically found in the climate of that state or other factors. Further, the Skyspace eligible for protection by permit is limited to that which would not be shaded by a hypothetical twelve foot fence at the property line in Subprovision IV.(C)(5)(b). This is the approach taken by Pattonsburg, Mo. Municipal Code § 14-105 (1996). States pursuing a more aggressive strategy may wish to modify or exclude this eligibility requirement. In addition, existing structures are

exempted entirely under Subprovision IV.(C)(5)(c). Subprovision IV.(C)(5)(f) provides a path for a subsequent Solar Energy System to obstruct the Skyspace of a pre-existing Solar Energy System on neighboring property if the new system will produce greater energy savings and the owner of the earlier-in-time system is compensated. This provision reflects that a purpose of this statute to provide maximum non-solar energy savings. This language is derived from Cal. Pub. Res. Code § 25986.

We do not believe that there is any one “magic” formula for calculating the dollar amount that will adequately compensate the owner of the existing Solar Energy System while not unduly discouraging new systems. Our compromise is to provide the owner of the first in time system with the lesser of 110% of (1) his investment, taking into account prior years of use, and (2) the net value of the energy the owner might have received in the absence of the new, obstructing, Solar Energy System. While this will not always result in the owner of the existing system receiving at least as much value as the system might have generated, it does ensure that he/she will either get a positive return on his/her original investment or greater value than he/she could have expected his system to actually generate – in both cases without risks. As such, this provision should encourage site owners to proceed with installation of a Solar Energy System without fear that a subsequent installation will turn the original investment into a bad one. Where the earlier in time installation is only partly obscured and remains cost effective to operate on a going forward basis, the model legislation calls for a reduction in the compensation. Notably, in contrast to the adjustment for a system that cannot be kept in service economically, the adjustment for systems that can economically continue to operate does not include operating costs in the calculation. This omission will generally increase the amount of compensation required to be paid. This “extra” compensation is intended, in rough fashion, to make the owner of the original system whole for the loss of use of his land that will be occupied by the non-functioning portion of his system and other negatives potentially associated with operating a partially functioning system.

Subprovision IV.(C)(6): The permitting procedure generally follows that used by the city of Boulder. *See* Boulder, Colo., Rev. Code § 9-9-17 (h) (3) – (10). However, States should delegate authority for implementation of the process to the local governmental bodies appropriate to their structure. The permit issuing criteria of Subprovision IV.(C)(6)(f) ensures that permits are issued and can be appealed based on a balancing of a variety of interests. We have limited the life of a Solar Access Permit to 20 years even in cases where the useful life of a Solar Energy System is expected to exceed twenty years because a 20-year period strikes a balance between (1) providing the owner of the Solar Energy System a reasonable opportunity to obtain a return on investment, and (2) allowing policy to evolve as more experience is gained with Solar Access Permitting.

## **LIMITS ON PROSCRIPTIONS**

### **(A) General Proscription**

Subprovision V.(A): The language used in this subprovision is derived from general proscription language used in several jurisdictions, and it is intended to generally preclude prohibitive or restrictive regulations contained in a wide array of public and private settings. This basic provision is broadly applicable so that specific exceptions can be carefully crafted in subsequent provisions. This approach is intended to effectively create a general presumption against the validity of restrictive regulations. As a result of this subprovision, regulations that prohibit or restrict Solar Energy Systems are by default considered invalid unless resuscitated by one of the circumscribed categories set forth in Subprovision V.(B). The language in this subprovision is generally inspired by various provisions of existing and proposed state codes, including Colo. Rev. Stat. § 1.38-30-168 (Colo. 2009), Senate Bill 0526 (Ill. 2008), Ind. Code § 36-7-2-8 section 8(c)(2), Md. Code Ann., [Real Property] § 2-119 (4)(b)(2), Cal. Civil Code § 714(a), N.C. Gen. Stat. § 22B-20, Fla. Stat. § 163.04, Ariz. Rev. Stat. § 33-439(A).

Subprovisions V.(B)(1), (2) and (3): These subprovisions carve certain specific exceptions out of the general proscription language of the preceding subprovision. In particular, they permit, within limits, three types of restrictive solar regulations: (1) reasonable aesthetic provisions, (2) health or safety requirements intended to protect persons and property, and

(3) the preservation of historical structures. With respect to the limits imposed on such exceptions, Subprovisions IV.(B)(1)(a) and (b) declare that regulations that create significant cost increases or efficiency decreases are unacceptable, but that a restriction that provides for a no more costly and equally efficient alternative system is allowed. The notion that a significant cost increase or efficiency decrease would void regulations is derived from various provisions, including Colo. Rev. Stat. § 1.38-30-168(2)(a) (Colo. 2009), N.J. Rev. Stat. § 45:22A-48.2(a), Cal. Civ. Code § 714(b), Ind. Code § 36-7-2-8(c), and Ariz. Rev. Stat. § 33-1816. Meanwhile, Subprovision IV.(B)(1)(b), excepting those reasonable provisions that allow for an alternative system of comparable cost and efficiency is inspired by Ind. Code § 36-7-2-8(c), and Cal. Civ. Code § 714(b).

Subprovision V.(B)(4) and (5): These subprovisions represent an attempt to clarify the outer limits of acceptable effects by defining what “significant” means in terms of cost increase or performance decrease. In this model legislation, we selected 10% as the critical value because, while it is toward the low end of a material change in cost or efficiency, it is large enough to assure with some certainty, despite the need to make some assumptions in the related calculations, that the negative impact on Solar Energy System would be meaningful to the owner of the system. It also comports with the other terms of this legislation, including those in the section on easements. However, there is no well-defined objective basis for this threshold and states may wish to adopt a lower or higher standard. Likewise, the dollar value is left open for local determination. No single dollar value could possibly represent a reasonable value across all jurisdictions, and we felt that this type of determination was best left to the relevant localities who could account for circumstances unique to them. Furthermore, we provided that the lesser of the percentage of cost or absolute dollar amount is the critical value in terms of separating permissible and impermissible regulations. This is consistent with the statutory purpose of promoting the collection and use of solar energy.

However, while we suggest and encourage this format because it is easily adaptable and best accounts for unique circumstances, we recognize that it is not the only reasonable option available to various localities. An example of an alternative approach is that employed by California. California takes its exceptions one step further and defines significant cost increases and significant efficiency decreases differently for each of several various specific Solar Energy Systems. For example, California defines “significant” for domestic water or swimming pool heating systems as a greater-than-20% cost increase or greater-than-20% efficiency decrease over initial specifications. Cal. Civ. Code § 714(d)(1)(A). At the same time, California defines “significant” for photovoltaic systems as a greater-than-\$2000 increase in cost or a greater-than-20% decrease in efficiency. Cal. Civ. Code § 714(d)(1)(B). While this approach has advantages, we have chosen not to adopt it for purposes of our general model legislation for two distinct reasons. First, enumerating such a list runs the inherent risk of unintentionally leaving otherwise valid Solar Energy Systems out of consideration and therefore unprotected. Second, even if the first concern were to vanish, establishing such exact contours to define which effects of solar access regulations are acceptable and which are not is a practice better left to localities, which are more in tune with the particular financial conditions and other circumstances of their respective markets. It seems to us that not all jurisdictions will have the resources to draw appropriate lines between types of systems. Subprovision V.(B)(2): This subprovision excepts from proscription any regulations that have the effect of prohibiting or restricting the installation or use of Solar Energy Systems, but which constitute bona fide health or safety regulations promulgated to protect persons and property. This exception is in line with the primary function of all governmental entities to protect their citizens. The exception is derived from Colo. Rev. Stat. § 1.38-30-168(2)(b) (Colo. 2009) and a piece of legislation previously proposed in Minnesota (H.F. 2552 (Minn. 2008)).

Subprovision V.(C): This subprovision clarifies that the act does not grant any property owner rights to solar access on property owned by either another person or a common ownership entity. It is inspired by language contained in Colo. Rev. Stat. § 1.38-30-168(3) (Colo. 2009)

Subprovision V.(D): This subprovision clarifies that the act does not grant a property owner rights to place a *permanent* Solar Energy System on property that they have leased or on property that serves as collateral for a commercial loan, unless either the lessor or the secured party, as applicable, grants such permission. In these cases, the in fee owner or

the lender has an interest in the long-term value of the property that merits providing such parties with a say as to whether a permanent installation is permitted. It is reasonable to expect that the lessor or the secured party, as the case may be, would grant permission for a permanent installation if such installation would add value to the property. If permission cannot be obtained, a temporary system can still be placed on the property. This is distinct from the situation encompassed by Subprovision V.(C) where the property is wholly owned by another or under shared ownership and the individual desirous of solar energy access has either no property interest in it at all or merely a shared interest, and, thus, no right to install a Solar Energy System, whether permanent or temporary on such property. This subprovision was also inspired by Colo. Rev. Stat. § 1.38-30-168(3) (Colo. 2009).

Subprovision V.(E): This subprovision is intended to close what otherwise could be a loophole in this section on proscriptions. This provision requires any authority needing to approve the installation or use of a Solar Energy System to rule on such approval according to its standard procedures without undue delay. As such, recourse will clearly be available in the event the relevant governmental body responsible for approving a Solar Energy System undermines the purposes of the legislation by avoiding or delaying a required approval unreasonably.

Subprovision V.(F): This subprovision is intended to provide an avenue for obtaining compensation to an aggrieved party in the case where another party violates this section. It is also intended to provide localities adopting this section the opportunity to assess an appropriate fine against a party that violates the proscription on unduly burdensome regulations. The fine element is intended as a reasonable deterrent, and we favor this mechanism over an award of consequential damages because consequential damages invite fairness issues in light of the fact that they are often difficult to foresee.

#### **(B) Structures Designated for Historical Preservation**

Subprovision V.(G): This subprovision is intended to create a limited exception from protection for those structures designated for historical preservation. The first sentence of this subprovision is purposeful, explaining that this subprovision was crafted so as to provide generally broad leeway for governmental units to protect historical property. This statement is important from a policy perspective because it signals legislative intent that the rest of the subprovision be read narrowly. The second sentence establishes the relevant standard – authorities can regulate the installation or use of Solar Energy Systems by properties designated for historical protection up to the point that those regulations unreasonably prohibit the use of such systems. Essentially, this provision provides authority for governmental units to protect historical properties broadly, enabling them to restrict the installation or use of Solar Energy Systems thereupon sweepingly, and even prohibit them so long as such prohibition is reasonable. In this subprovision, the reasonableness of a prohibition is made a function of the effect of the proposed system on: (1) the historical authenticity of the appearance of the structure, and (2) the ability to collect historical information or artifacts. A timeliness element is added to the second criteria, such that the collection of any historical information or artifacts that might be precluded by the installation of the Solar Energy System cannot serve as a reason to permanently block the Solar Energy System.

Subprovision V.(H): This subprovision is a sunset clause with respect to existing regulations that conflict with Subprovision V.(G). This provides a transition period for the relevant local governing unit to devise and implement alternative regulations that meet their needs and are consistent with this statute. This latter element mirrors the time clauses contained in Subprovision V.(A).

#### **(C) Permit Fees**

Subprovision V.(I): This subprovision is similar to Subprovision V.(E) because it, too, is intended to ensure governmental officials do not frustrate the intent of the legislation. Here, we require permitting fees to bear a reasonable relationship to the costs incurred in issuing permits. Without this provision, governmental units might circumvent the spirit of this legislation and effectively prohibit the installation or use of Solar Energy Systems by requiring permits to install or use them and then charge prohibitive fees to acquire such permits. An alternative option with respect to this provision

would be to establish a specified maximum dollar amount chargeable by a locality. The virtues of this latter alternative would be to encourage efficient permitting procedures and provide bright-line limits for acceptable conduct. On the whole, we chose to include a reasonableness standard in the model text because of its (1) greater flexibility, and (2) ability to ensure local agencies are able to recoup appropriately incurred costs in administering the program.

## **ENFORCEMENT**

We leave the appropriate enforcement tribunal to be determined by each state, as different local governmental units have different judicial systems and agency structures. Regardless of the specific procedure ultimately adopted, we encourage localities to provide prevailing parties with reasonable attorney's fees and costs. This provision will help discourage violation of this statute and will encourage those people whose rights under this statute clearly have been violated to pursue the remedy to which they are entitled, undeterred by the prospect of having to pay for expensive legal proceedings. This provision is inspired, in part, by N.C. Gen. Stat. § 22B-20.

**Austin**  
**Beijing**  
**Dallas**  
**Denver**  
**Dubai**  
**Hong Kong**  
**Houston**  
**London**  
**Los Angeles**  
**Minneapolis**  
**Munich**  
**New York**  
**Riyadh**  
**San Antonio**  
**St. Louis**  
**Washington, D.C.**

*[www.fulbright.com](http://www.fulbright.com)*