Deed Restrictions for Solar

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for **Solar America City - Houston**

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I. Introduction

The City of Houston, Texas was chosen by the U.S. Department of Energy (DOE) to receive technical assistance through the Solar America Cities (SAC) program to help overcome barriers to adopting solar. This report summarizes the efforts made to address Task 3: "Examples of residential deed restrictions allowing solar" as outlined in the Technical Assistance Statement of Work for the City of Houston.

Houston specifically requested technical assistance for understanding the potential barrier presented by deed restrictions and restrictive covenants in adopting solar energy collection technologies. The City of Houston is unique when compared to other cities in the United States in that it does not have a formal zoning code that the city can use to plan what types of developments and uses will be permitted in certain areas of the city. Instead, developers, their attorney's and property owners are left to protect the property by drafting restrictive covenants or deed restrictions, with the City then enforcing these individual restrictions when a conflict arises.

The City also requested examples of positive deed restrictions (ones that benefit solar installations) that include provisions for installing either photovoltaic or solar hot water systems, and is interested in examples where this issue has been confronted or resolved in other U.S. cities. Some recommendations are provided that may be used to address both perceived and real barriers and provide different paths forward depending on the level of engagement the City will want to take with homeowner's associations or the legislative process.

Representatives in the Texas Legislature have tried on numerous occasions to pass a law that would bypass the deed restrictions and restrictive covenants and make it easier for someone to harvest solar energy. These types of laws have already been passed in over 30 states in the U.S.¹ and the next chance for Texas to try again will be in 2011 when the legislature reconvenes.

II. The Effect of No Zoning Regulations Applied to Solar Collectors

The lack of zoning and the vast number of different restrictive covenants in Houston and its surrounding communities pose a challenge for those who want to harvest solar energy.

In downtown Houston, many of the buildings are older and may have landmark or historic district status. These overlays are meant to protect the historic character of certain properties or neighborhoods. In these areas, the historic overlay acts as a type of zoning where certain uses are prohibited or discouraged as particular modifications may make a property ineligible for tax breaks targeted specifically for historic preservation. This could hold true for solar, where installation of panels may detract from the historic character of a house, which could then make it a non-contributing property and not eligible for future tax credits.

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¹ See DSIRE database. Solar Access Laws - June 2009. Available at: http://www.dsireusa.org/solar/summarymaps/

Looking beyond the historic districts of downtown into other established neighborhoods, there are deed restrictions or restrictive covenants that make no mention of solar, in which it will be difficult for a property owner to have a sense of whether it will be allowed if voted on by a Homeowner's Association (HOA) or Architectural Review Board (ARB) that can reside within an HOA. Some of these neighborhoods may have restrictive language on roof composition and aesthetics that may be extended to preclude the installation of solar collectors. In addition, HOA boards change and may not be consistent in how they hand down decisions about solar energy collectors.

Newer neighborhoods, primarily in the suburbs of Houston, have restrictive covenant language that allows solar to some degree, but may restrict it to rooftops aspects that are not visible from the street. In some cases, if the southern aspect is facing the street, it would be difficult for a homeowner to optimize solar energy collection.

At the other end of this example is Discovery at Spring Trails. This community incorporates solar panels on each house it builds, leaving the homeowner the option to add more at a later time if they desire.

III. Restrictive Deed and Covenant Language in Houston and Vicinity

Research on deed and covenant restrictions was conducted by general Internet searches for keywords relating to this topic, plus gathering information at the following websites:

- Houston Master Planned Communities http://www.har.com/MasterPlanned/
- Southwest Management http://www.southwestmanagement.net/
- American HOA Management http://www.americanhoa.com/americanhoa/outside home.asp
- March 2009 news story http://www.kxan.com/dpp/news/Austin homeowner denied solar panels
- Bringing Solar Energy to the Planned Community A Handbook on Rooftop Solar Systems and Private Land Use Restrictions -http://www.gosolarcalifornia.org/solar101/DOE CC+Rs and solar rights.pdf

Initial research was focused on Houston and its suburbs with deed restriction and restrictive covenant language easily accessible from the Internet. There were no specific examples for locations within the Houston city limits. The search was extended further out from Houston to other communities in Texas that have similar HOAs and ARBs. The last document in the list above has a great number of suggestions on how residents can navigate the HOA landscape when considering whether or not to install solar, and what types of legal remedies are available. The paper also shows example legal forms, summary of state laws addressing HOAs as of 2001, a model state solar rights law as well as survey results from contractors who have encountered issues with solar and HOAs.

a. Positive Deed Restrictions for Solar

For this report, a positive deed restriction would be one that explicitly allows or encourages the development of solar.

Discovery at Spring Trails

An example of a positive deed restriction is in the master planned community of Discovery at Spring Trails, located approximately 26 miles north of Houston. From the planning stages it was envisioned that each house would have at least 1kW of solar already installed with the potential to upgrade to 5kW.

The deed restrictions for the neighborhood allow the solar upgrades on any roof aspect of the house as well as allowing solar on garden trellis and shade structures. The website for this development can be found here: http://discoveryatspringtrails.com/

The Woodlands

The Woodlands master planned community is located approximately 30 miles north of Houston. Based on the language below, as drafted in 2006 by The Woodlands for residential developments, solar collectors appear to be allowed on all aspects with more restrictive language for collectors on the street side of the house. There is a Covenant Administration that must approve installation of any solar collector on any aspect of the roof. There is no mention of allowing solar on any other part of a homeowner's property as the language below specifically addresses rooftop installations. For commercial properties in The Woodlands, the language is more general.

2.1-Section L (page 15) Skylights and Solar Collectors

"Collectors will be permitted on the street side slope of a roof only if they are of a flat profile, conform to the slope of the roof, and are placed so that the top edge of the collector is parallel to the roof ridge. No part of the installation may be visible above the roof line..."

http://www.thewoodlandsassociations.org/files/standards0206final.pdf

3.4 – Section D (page 17) Special Considerations [commercial properties]

"Energy conservation should be considered in the building design when determining such things as orientation, shape, thermal mass, colors, shading, reflectivity, air infiltration and ventilation. The incorporation of an alternate energy source (solar, etc.) is encouraged."

http://www.thewoodlandsassociations.org/files/CommercialStandards_Web0807.pdf

Grand Heritage

The Grand Heritage community is located in Carrolton, TX. In their Declaration of Covenants, Conditions and Restrictions, they have a provision that allows for solar that appears to encourage installation, within specific design guidelines.

ARTICLE XI – Section 11.04(n) (page 33)

"... Any solar equipment and skylights shall be incorporated into the structure and building mass as required in the Design Guidelines."

http://www.ahn15.com/grandheritage/document/247083recorded ccrs bylaws.pdf?16614

b. Deed Restrictions that Allow but could Encumber Solar

In this section, any deed restrictions that mention solar, but are restrictive to a point of potentially making it too expensive to generate solar electricity, or wording that speaks to roof composition and penetrations might be stretched to disallow any solar collectors.

Aliana

The Aliana community is located approximately 27 miles southwest of Houston. Their wording is simple, and makes it difficult for owners that have a south facing roof that is visible from the street.

Section 19 (Page 33) Rooftop Elements

"No solar collectors shall be placed on a roof slope so that they are visible from a Street or the Common Area."

http://www.alianahoa.com/aliana/document/2173715ccr-recorded docs all.pdf?13481

Cinco Ranch

Cinco Ranch is located in Katy, Texas 30 miles west of Houston. In the Cinco Ranch Protective Covenants and By-Laws, the ability to have solar collectors is put to the test of whether it fits in with the architecture of the house. This may allow for traditional solar collectors, but may also be an appropriate neighborhood for building-integrated photovoltaics (BiPV) where solar cells are integrated into roofing tiles, windows, shade structures and awnings.

Section 20 (page 28) Energy Conservation Equipment

"No solar energy collector panels or attendant hardware or other energy conservation equipment shall be constructed or installed on any Unit unless it is an integral and harmonious part of the architectural design of a structure, as determined in the sole discretion of the appropriate committee pursuant to Article XI hereof."

http://www.cincoranchpoa.com/pdf/DECLARATION OF PROTECTIVE COVENANTS.pdf

Crown Ridge

The Crown Ridge neighborhood is located north of Dallas, Texas. In their Declaration of Covenants, Conditions and Restrictions document, solar is not allowed unless reviewed by the Architectural Control Authority (ACA).

Section 7.12 (Page 21)

"No Solar Collectors. Except with the written permission of the ACA, no solar collector panels or similar devices may be placed on or around any Dwelling." http://www.ahn15.com/crownridge/document_list.asp?id=4&name=Governing+Documents

Because there is no standard, it will be difficult for a homeowner to gain approval as different ACA boards may be either more restrictive or sympathetic to the installation of solar panels.

Waterside

The Waterside community is located northeast of Dallas, Texas. In their declaration of covenants, conditions and restrictions document, solar is addressed. For solar collectors, the wording is similar to the Aliana and Crown Ridge communities mentioned above. Waterside, Aliana and Crown Ridge are managed by the same HOA management corporation.

Section 7.12 (Page 21) No Solar Collectors

"Except with the written permission of the ACA, no solar collector panels or similar devices may be placed on or around any Dwelling." http://www.ahn15.com/watersidehoa/document_list.asp?id=4&name=Legal+Documents

Paloma Lake

The Paloma Lake neighborhood is northeast of the City of Austin, Texas. The deed restriction language for solar is included with the language for satellite dishes. Based on the wording, it appears to cover solar by substituting the word "solar" for "satellite dish" as shown in the 2008 Deed Restrictions Guidelines and Clarifications.

Satellite Dishes/Solar Energy panels/systems (Article 2, Section 2.09-2.10):

Although 18" satellite dishes are automatically approved for usage in Paloma Lake based on current FCC guidelines, you must make a written application of the location of where the dish will be placed on the property. a) Satellite dishes, attached to the back of residence with no part of the Permitted Antennae any higher than the lowest point of the roofline and screened from view of adjacent lots and street. b) Attached to side of home with no part of Antenna any higher than the lowest point of the roofline and screened from view of adjacent Lots and the street c) Mounted behind and below side fence of home and screened from view of

adjacent Lots and the street Deed Restriction Guidelines and Clarifications - Page 5 The satellite dish installation guidelines listed above are the responsibility of the homeowner to enforce; it is recommended that the installer of each satellite dish is made aware of these requirements in advance of installation in order to avoid the necessity of an additional service call and potential expenses to relocate the dish.

This language most likely implies that solar cannot be installed from the roof aspect facing the street. http://www.southwestmanagement.net/palomalake/document/297293acc_guidelines_-palomalake.pdf?18431

Parkway Central

The Parkway Central neighborhood located in Arlington, Texas has covenant and deed restriction language that initially appears to support solar.

Section 3.17

"Solar Energy Collector Panels. Installation of solar energy collector panels, including photovoltaic cell panels, on the roof or walls of a dwelling structure, or installed anywhere on the Lot, must be approved by the Committee. Roof mounted panels must be attached as close as possible to the roof surface, and space between the panels and the roof must be enclosed with edge panels. Attached piping or wiring must be enclosed and shall not be visible from outside the dwelling structure." http://www.neighborhoodlink.com/Parkway Central/pages/141446

This language, however, will make it difficult to mount the panels in a configuration that allows for passive cooling. If the panels are too close to the rooftop, increased thermal gain will likely result in a decrease in module performance. Also, if "edge panels" are required, that will further hinder air flow behind the modules and may further decrease module performance.

c. Deed Restrictions that Do Not Address but could Encumber Solar

First Colony Community

The First Colony community, located approximately 30 miles southwest of Houston in Sugar Land does not have specific language on restricting solar, but there is a provision in the roofing guidelines from 2002 that has specific regulations on roof composition and prohibits skylights on the front of the houses. This suggests that any penetration other than roofing materials would not be allowed. It is unknown if this has been tested by a homeowner that is interested in solar collectors. http://www.firstcolony.org/userfiles/roofing.pdf

d. Summary of Restrictive Language in Texas

The different types of deed restrictions and restrictive covenants and conditions presented above are very unique to each neighborhood. The analysis represents a fairly comprehensive though not exhaustive search of neighborhoods in the Houston vicinity and the rest of Texas, and these

examples cover a wide spectrum of both positive and negative deed restrictions for solar. None of these neighborhoods explicitly prohibited solar, but some of the language suggests that it may be difficult in certain neighborhoods, especially depending on the orientation of the house.

The specific deed language for Discovery at Spring Trails was not available for this report, however because solar is an integral component in each house, this neighborhood would serve as a good example to follow for other neighborhoods in Houston and vicinity. The Woodlands community is also a good example of allowing solar by at least explicitly laying out how panels will be installed, but also allowing for solar panels to be installed when visible from the street. Other neighborhoods don't specifically allow panels to be visible from the street.

In many cases, it appears full discretion is given to whoever is sitting on the ARB to approve or deny solar. Absent any specific language on how solar should be installed if a homeowner is interested, the review boards appear to have a large amount of latitude to allow or prevent solar from being installed, or potentially restrict it to a degree that may make it economically unattractive.

IV. Legislative Attempts in Texas to Prevent Restrictive Language

The Texas legislature has addressed these issues in many different sessions, but there have been no bills signed into law as of the last session in 2009. The next opportunity for bills that can address the restrictive language in HOAs is in January 2011. The Texas Renewable Energy Industries Association (TREIA) has taken up this cause as one of their legislative objectives. Specifically for the 2009 session, their goal was to:

"Disallow property owner association's rules which either explicitly or in effect prevent renewable energy systems from being installed by homeowners. Rules would be permitted to ensure any installation meets reasonable safety and aesthetic guidelines."

http://data.memberclicks.com/site/treia/LegisAgen09.Amend.2.6.09.doc

It does not appear that any of the bills that addressed restrictive covenants, passed in the 2009 session. The one supported by the TREIA (HB 0025) had language that would prevent any property owner's association from restricting a property owner their right to install "a solar energy device". Language from HB 0025 is presented below:

Sec. 2002.008(b) "Except as otherwise provided by this section, a property owners' association may not include or enforce a provision in a dedicatory instrument that prohibits or restricts a property owner from installing a solar energy device." http://www.legis.state.tx.us/BillLookup/Text.aspx?LegSess=81R&Bill=HB25

Companion bills in both the house and senate that have similar language include SB403, HB798 and HB2956.

Previous attempts by the legislature in 2007 are presented in the following document: http://www.texashoaissues.com/handbook.html. Language in the 2009 HB 0025 was lifted from HB 1651 in the 2007 session.

V. State and Local Efforts that Address Restrictive Language

A good place to find up-to-date summaries of state and local solar access laws that pertain to deed restrictions and restrictive covenants is the DSIRE database. The "Rules, Regulations & Policies for Renewable Energy" table can be found here:

http://www.dsireusa.org/summarytables/rrpre.cfm. For each state, there is a column that has links to access laws at either the state or local level. Some of the states and cities below use summaries of information in the DSIRE database. Some are from the Solar Access report published by the Solar America Board for Codes and Standards (SolarABCs). Their paper also presents model language that can be used for overcoming both zoning and community association bylaws.

http://www.solarabcs.org/solaraccess/Solaraccess-full.pdf

a. State of Arizona

Arizona has a specific state statute that attempts to prevent restrictions on solar energy devices:

"Any covenant, restriction or condition contained in any deed, contract, security agreement or other instrument affecting the transfer or sale of, or any interest in, real property which effectively prohibits the installation or use of a solar energy device as defined in section 44-1761 is void and unenforceable." (emphasis added) http://www.azleg.state.az.us/FormatDocument.asp?inDoc=/ars/33/00439.htm&Title=33&DocType=ARS

The 2003 Arizona court case of Garden Lakes Cmty. Assn., Inc. v. Madigan (62 P.3d 983 (Ariz. Ct. App. 2003)) specifically addressed this issue where the Garden Lakes Community Association took two different homeowners to court because they installed "solar energy devices" without going through the association's approval process. The homeowners said the restrictions would have (quoting the above statute) "effectively prohibited" them from installing solar energy devices.

The community association had language that addressed the installation of solar energy devices:

(1) All solar energy devices Visible from Neighboring Property or public view must be approved by the Architectural Review Committee prior to installation. (2) Panels must be an integrated part of the roof design and mounted directly to the roof plane. Solar units must not break the roof ridge line, must not be visible from public view and must be screened from neighboring property in a manner approved by the Board of Directors or its designee(s). Roof mounted hot water storage systems must not be Visible from Neighboring Property. Tracker-type systems will be allowed only when not Visible from Neighboring Property.

What the appeals court affirmed was that the restrictions imposed by the community association would have "effectively prohibited" the homeowners from implementing solar because the alternatives that the association sought as part of the restrictive language would have made it too expensive to recover the cost of the solar energy device. In addition, one of the suggestions by the community association would have shaded the collectors and reduced their efficiency.

b. State of California

In 1978, California addressed this issue by preventing HOAs and local governments from placing "unreasonable restrictions" that would make it difficult for a homeowner to install solar collectors.

http://www.statesadvancingsolar.org/policies/policy-and-regulations/solar-access-laws

c. State of Colorado

The State of Colorado has a statute that prevents "Unreasonable Restrictions on Renewable Energy Devices" which apply to covenants, restrictions or conditions that have the potential to increase cost and decrease efficiency. There can be reasonable restrictions imposed for aesthetic purposes. http://www.michie.com/colorado/lpext.dll?f=FifLink&t=document-frame.htm&l=jump&iid=6e0451f1.601eaa37.0.0&nid=1d3a9#JD_38-30-168

In the case of *Governor's Ranch Homeowners Assn. v. Gunther* (705 P.2d 1011, 1012 (Colo. Ct. App. 1985)) the HOA wanted an evaporative cooler (which was connected to a solar hot water system) to be relocated to the ground. Because the evaporative cooler was integrated with the solar collectors, and not separate, it could be installed on the roof. If the evaporative cooler was separate, then the HOA would have grounds to have it removed. The appeals court ruled that because the cooler was connected, it was part of an integrated solar energy device. It appears that separating the cooler from the solar collectors and moving it to the ground would have been an unreasonable restriction.

d. State of Hawaii

The state of Hawaii has language that allows for single-family houses and townhouses to install solar by preventing the type of language found in deed restrictions and restrictive covenants to be enforceable. http://www.solarabcs.org/solaraccess/Solaraccess-full.pdf

e. State of Massachusetts

The State of Massachusetts has vacated any type of language that would otherwise restrict someone's ability to harvest solar energy. http://www.solarabcs.org/solaraccess/Solaraccess-full.pdf

f. State of New Jersey

The State of New Jersey has a Department of Community Affairs that enforces a state law that says no deed restrictions can prevent someone from harvesting solar energy.

http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=NJ15R&re=1&ee=1 and http://www.solarabcs.org/solaraccess/Solaraccess-full.pdf

g. State of North Carolina

The State of North Carolina has statutory language that in some ways mirrors the restrictive language of some HOAs that allow solar as enforced by both cities and counties. In addition, rules regarding HOA restrictions are different for restrictions in place before October 1, 2007 and those written after. Language in these state statutes is complicated and may make it difficult for homeowners to adopt solar.

http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=NC08R&re=1&ee=0

h. States of Virginia and Maine

Both Virginia and Maine have "reasonable restriction" language that gives HOAs some latitude on how then can restrict solar collectors. Virginia has a date of July 1, 2008 when this is enforceable. Before that date, there is no law invalidating existing HOA restrictions. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=VA15R&re=1&ee=0. In Maine, these restrictions only are in effect after September 30, 2009, with HOA or city/county restrictions in place before that date not affected by this language.

i. State of Wisconsin

Wisconsin has a statute that also nullifies any type of restriction on public land that prevents or restricts solar energy systems. There is also language that prevents local governments from placing restrictions on solar energy systems, with some exceptions that address the potential for increased cost of installation or decreased efficiency.

http://www.solarabcs.org/solaraccess/Solaraccess-full.pdf and http://www.dsireusa.org/incentives/incentive_Code=WI04R&re=1&ee=0

j. City of Austin

The City of Austin, like Houston, is one of the Solar America Cities. In the December 2008 "Benchmarking of Solar Energy Programs" report, Section 1.3 on Solar Access Laws discusses the potential "Gaps" when compared to best practices for adopting solar. This report suggested adopting standards for HOAs as described by TREIA, which, based on the date of the report, is probably the same legislative language in the 2007 and 2009 bills described above in Section III. The report for Austin can be found on the SAmCIN site at: http://www.solaramericacities.energy.gov/

VI. Federal Efforts that Address Restrictive Language

At the federal level, the Solar Energy Industries Association (SEIA) has a webpage that discusses federal legislation that would prevent HOAs and private covenant language from restricting the installation of solar energy devices.

http://seia.org/cs/federal_issues/restrictive_covenants/hoa_rules . Both the house and senate have similar bills that were introduced in 2007. Both are called the Solar Opportunity and Local Access Rights (SOLAR) Act. Sec. 6. Prohibition of Restrictions on Residential Installation of Solar Energy System. (1)

More recently, H.R.2454 (The American Clean Energy and Security Act of 2009) has almost exactly the same language as the 2007 legislation that would also bar HOAs and other entities from prohibiting solar energy systems. This legislation passed the House in 2009 and is now on the Senate calendar:

Sec. 209. Prohibition of Restrictions on Residential Installation of Solar Energy System.

- (a) Regulations- Within 180 days after the enactment of this Act, the Secretary of Housing and Urban Development, in consultation with the Secretary of Energy, shall issue regulations--
 - (1) to prohibit any private covenant, contract provision, lease provision, homeowners' association rule or bylaw, or similar restriction, that impairs the ability of the owner or lessee of any residential structure designed for occupancy by 1 family to install, construct, maintain, or use a solar energy system on such residential property; and
 - (2) to require that whenever any such covenant, provision, rule or bylaw, or restriction requires approval 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 shall not be willfully avoided or delayed.
- (b) Contents- The regulations required under subsection (a) shall provide that--
 - (1) such a covenant, provision, rule or bylaw, or restriction impairs the installation, construction, maintenance, or use of a solar energy system if it--
 - (A) unreasonably delays or prevents installation, maintenance, or use;
 - (B) unreasonably increases the cost of installation, maintenance, or use; or
 - (C) precludes use of such a system; and
 - (2) any fee or cost imposed on the owner or lessee of such a residential structure by such a covenant, provision, rule or bylaw, or restriction shall be considered unreasonable if--
 - (A) such fee or cost is not reasonable in comparison to the cost of the solar energy system or the value of its use; or
 - (B) treatment of solar energy systems by the covenant, provision, rule or bylaw, or restriction is not reasonable in comparison with treatment of comparable systems by the same covenant, provision, rule or bylaw, or restriction.

(c) Solar Energy System- For purposes of this section, the term 'solar energy system' means, with respect to a structure, equipment that uses solar energy to generate electricity for, or to heat or cool (or provide hot water for use in), such structure.

VII. Summary of Restrictive Language Analysis

There are many examples of both positive and negative deed restriction language within the State of Texas, both in neighborhoods surrounding Houston and other communities as well. In recent years, new developments that incorporate solar will be a model for positive deed restrictions that could be adopted by the City of Houston or its surrounding neighborhoods. State efforts to prevent HOAs from placing restrictions or denying solar energy devices have not yet been successful, though it appears that TREIA is actively pursuing these legislative efforts and absent any federal legislation that bars HOA as well as local government restrictive language, new bills will probably be introduced in the 2011 legislative session to address this issue.

Over 30 states in the U.S. have language that prevents local governments and HOAs from restricting solar energy devices. This language varies, and allows for some restrictions based on safety as well as what appears to be an economic balancing test; restrictions cannot be too cumbersome that it makes the system cost too great or reduces the overall system performance. Some states such as Virginia and Maine have dates that essentially grandfather in existing restrictive language, whether from local governments or HOAs, and new language implemented after those dates still allows restrictions that are deemed "reasonable."

Federal efforts to prevent local government and HOA restrictions are currently working their way through the legislative process. The existing language in the H.R.2454 may be modified by the time a bill is passed in the Senate and then signed into law, and regulations will have to be adopted that will address the intent of this new federal law. If legislation is not passed to address these deed restrictions, there may be some other avenues that Houston could pursue to remove these barriers. The next section contains recommendations that may prove beneficial to Houston.

VIII. Recommendations for the City of Houston

a. Encourage Existing Legislative Effort by TREIA

One of the best ways to have a large impact for Houston is to support the legislative efforts that have attempted to remedy the HOA restrictive language issue. It appears this language has been refined over the years as it has been introduced in multiple legislative sessions with wide support, only to not pass for reasons other than the substance of the bill. If large metropolitan cities like Houston were to throw their weight behind this bill, it may have a better chance of passing in the 2011 legislative session.

If this idea is not palatable due to potential opposition, following a model like the states of Virginia and Maine in Section V(h) where a specific date is set that precludes any new HOA regulations for new developments, or any type of language proposed by an existing HOA that

attempts to restrict solar. Having a date would essentially prevent any new HOAs from developing restrictions or preventing the installation of solar.

b. Comprehensive Survey of Existing HOAs

One way to determine if existing HOA deed language will provide a barrier is to complete a comprehensive evaluation of all master planned communities and neighborhoods in and near Houston. Some of the communities are listed above, however to gain a good understanding a more widespread survey will help evaluate similarities between different communities, as well as find potential examples of solar energy systems installed with HOA approval.

This survey would provide a geographic distribution of regulations that may show some clustering based on similar language, or may show entirely different regulations throughout Houston and vicinity. This type of information may help policy makers create specific regulations to address certain language that may be seen as prohibitive to installing solar, or has been shown to be a barrier to solar based on documented conflicts.

c. Work with Existing HOAs

Because the many HOA deeds and restrictive covenants will be around for years to come, the City of Houston may benefit from working with the HOAs and educate them about the benefits of solar as well as particular standards that they could easily adopt to streamline the process if they believe there is room for solar in their community.

One example is a document prepared by the California Department of Forestry and Fire Protection with the Office of the State Fire Marshall: http://osfm.fire.ca.gov/pdf/reports/solarphotovoltaicguideline.pdf. This draft was completed in consultation with industry representatives as well as code officials to address the safety aspects of photovoltaics. Some of the main subject areas that could be discussed with HOAs that may help educate them in the process include different module configurations that maximize safety and access to the building in case of a fire as well as proper locations and suggestions for the wiring systems. This type of detail may help with some alleviate real and perceived safety concerns raised by HOAs.

Another document that may be of use is a general guide for PV installation prepared for the California Energy Commission: http://www.energy.ca.gov/reports/2001-09-04 500-01-020.PDF. This paper gives a good background on the components needed for PV installation as well as different system types and mounting configurations.

It may be beneficial to contact the installers that work in the Houston area to determine any perceived or real roadblocks to Solar energy installations. A representative from a Houston area PV installer was quoted as saying that HOA restrictions have cost his business more than 1 million

dollars due to lost opportunities.² Understanding which neighborhoods and the type of language that is creating these problems may help define a targeted education plan geared towards HOAs. According to Raymond Walker of Standard Renewable Energy in Houston³, the biggest proponents of passing the HOA bills discussed above in Section IV are some of the HOA officials they've worked with. Mr. Walker stated they believe that "blanket state legislation is the best and perhaps only solution" as "changing the restrictive covenants in bylaws can be cumbersome or impossible."

A 2001 paper prepared for the Department of Energy "Bringing Solar Energy to the Planned Community" presented a section that has survey results from different solar installation contractors in Arizona, California and Florida where it was determined that 65% of the systems they installed were in areas subject to covenants, conditions and restrictions. Some of the highlighted comments include the following:⁴

- Overall, just over half (54%) of all homeowners are aware that they may need association approval.
- In approximately 3 out of 10 cases, an association will ask for a modification to a proposed solar system installation, and of those, most (80%+) were feasible. When those modifications were made, virtually all were then approved.
- All of the contractors were aware of the laws in each state governing solar in associations; however, a very small percentage of prospective purchasers were aware of such a law.
 Virtually all of the contractors indicated that the presence of the law is a significant factor in gaining approval for systems, and one of the higher volume contractors indicated that as much as 50% of the systems they sell into certain associations would not be installed if the law was not in place.

Based on the survey answers, there is still a large educational component that must be tackled which might help prevent any conflicts with regards to installing solar collectors. Even though this survey didn't include Texas, it may be reasonable to assume the answers would be in a similar range. The report also mentioned solar installers appear to be the ones paving the way for how to negotiate the HOA hurdles along with the state Renewable Energy Industry Associations (REIAs).

According to a law review article by Mark Pike (described in more detail below), polling results from a 2007 Zogby International survey⁵ reveal that many HOAs do not want additional government intervention, which should be apparent based on their decision to reside in a more 'aesthetically controlled' community. Local government is preferred over state and federal control based on their responses on who should be regulating environmental issues. It would be interesting to see how residents in HOAs in Texas would respond to the question that was asked: "Should

² http://greeninc.blogs.nytimes.com/2009/05/15/homeowners-associationsthe-enemy-of-solar/

³ E-mail conversation with Raymond Walker of Standard Renewable Energy on March 10, 2010.

⁴ See page 39: http://www.gosolarcalifornia.org/solar101/DOE_CC+Rs_and_solar_rights.pdf

⁵ http://www.cairf.org/research/zogby.pdf

community associations, as private organizations, have the right to control the scope and placement of solar panels on individual homes to maintain architectural standards?" Their answers may help the City of Houston determine the best path forward in addressing this issue.

d. The Efficient Breach Idea

A recent law review article by Mark Pike⁶ offers a few suggestions based on ways to resolve conflicts between HOAs and residents that want to incorporate new technologies and improvements that will reduce their energy usage and save them money.

One of his suggestions is to allow for what is termed an "efficient breach" where the homeowner installs solar panels without going through formal approval process. Ultimately, this can result in either 1) the HOA getting a court injunction to remove the panels, or 2) paying a fine to the HOA for going against the restrictive covenant and keep the panels up. The more common action taken by the HOA is to have the panels removed, which would make this option risky as installation costs might not be recoverable. One of the rationales for this is that the cost of the system plus paying for the reduction of neighboring property values may be less than the total cost of energy saved, which would make the breach attractive. However, this would only work if the homeowner was allowed to keep the panels up.

e. Financial Incentives and Alternative Models

The City of Houston might consider some type of financial incentive aimed at encouraging HOAs to amend their deed restriction language. This could be done by creating an incentive program that offers tax breaks or credits that would drive demand for solar in Houston. One idea could be a property tax incentive or special improvement district that targets certain neighborhoods or areas deemed to be barriers to adopting solar energy. If residents within a community react to these incentives and make a push for solar but find out their HOA restrictions don't allow solar, or make it uneconomical due to installation barriers, these residents may start forcing changes to HOA rules, especially when the incentives are great enough to make solar energy harvesting more affordable.

An example of a new program that is being introduced in Texas is the SolarCity concept of providing homeowner's a system to lease with the option of buying the system at the end of the lease or returning the system. With this model, SolarCity owns the equipment and maintain the system while the homeowner receives the benefits of solar along with a fixed monthly payment. This is being introduced first in the Dallas-Fort Worth area with TXU Energy (www.txu.com/solar). The company probably has experience with resistance from HOAs in other states and due to the fact they are starting in the Texas market demonstrates their confidence that HOA deed restrictions do not pose an insurmountable challenge. This shows that SolarCity and the utility will likely work within restrictions when they arise, and the demand created by this program may help be the

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⁶ Pike, Mark A., Green Building Red-Lighted by Homeowners' Associations (May 19, 2009). William & Mary Environmental Law and Policy Review, Vol. 33, No. 3, 2009. Available at SSRN: http://ssrn.com/abstract=1407568

impetus for reviving the Texas legislative effort to pass a bill preventing HOAs from imposing restrictions on solar installations. If SolarCity is successful in the Dallas-Fort Worth area and expands to other metropolitan areas in Texas, it will show that neighborhood restrictions do not pose too large a hurdle and it will make for an interesting case study in how these alternative financing mechanisms may thrive despite HOA regulations that on their face, appear as barriers to solar adoption.

It may be worth starting the discussion with SolarCity, the City of Houston and desired utilities to see if what is being proposed in Dallas-Fort Worth area can work within Houston and its surrounding communities.