

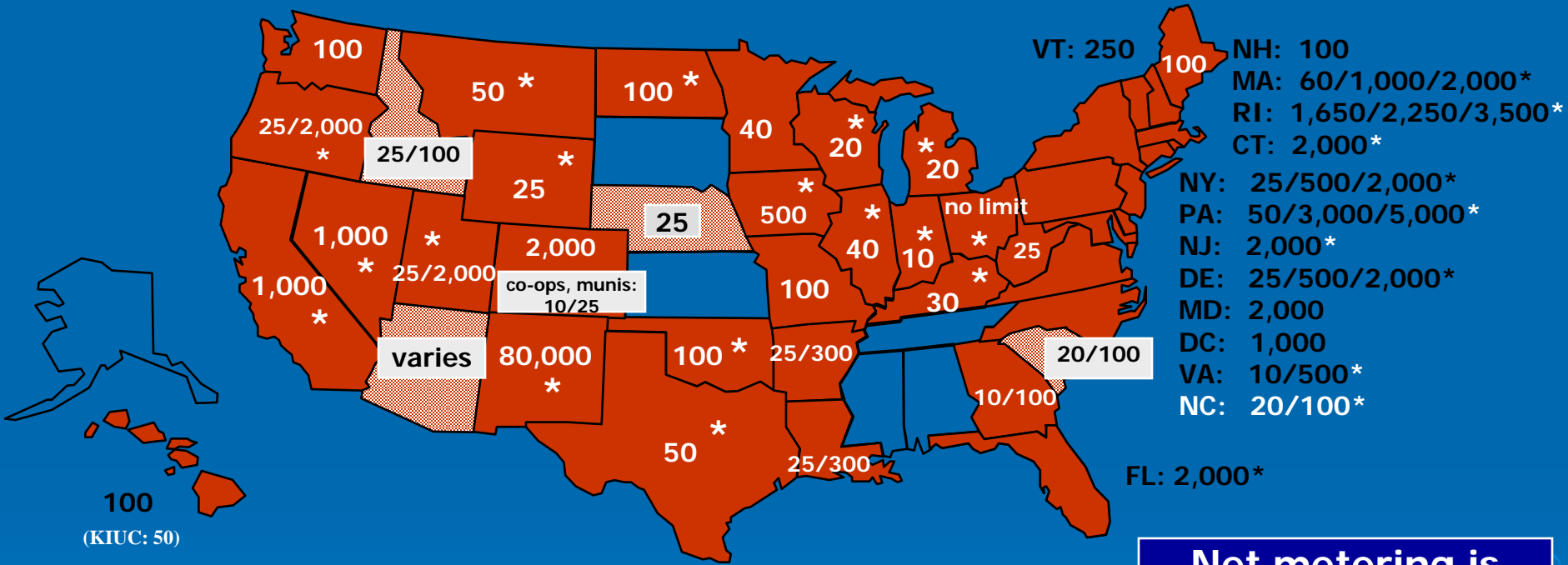
# Solar Panel Zoning Issues



# Types of Solar Systems

- Solar water heating for use in buildings
- Solar water heating for space heating
- Solar pool heating
- Photovoltaic

# Net Metering



- State-wide net metering for all utility types
- \* State-wide net metering for certain utility types only (e.g., investor-owned utilities)
- Net metering offered voluntarily by one or more individual utilities

**Net metering is available in 44 states + D.C.**

*(Note: Numbers indicate individual system size limit in kilowatts (kW). Some states' limits vary by customer type, technology and/or system application. For complete details, see [www.dsireusa.org](http://www.dsireusa.org).)*

# Commercial/Residential Applications



# State Wide Provisions

- **Massachusetts** has provisions which limit zoning code provisions (“No zoning ordinance or by-law shall prohibit or unreasonably regulate the installation of solar energy systems or the building of structures that facilitate the collection of solar energy, except where necessary to protect the public health, safety or welfare.”)
- **California** has a series of laws designed to protect a consumer’s right to install and operate solar energy technology on a home or business, including access to sunlight, or solar access.

# Current Zoning Provisions

- The main focus is on visibility of solar panels from the street (aesthetic view)
- Most ordinances regulate as accessory use
- Most ordinances do not allow for free standing solar panels in residential areas
- Most ordinances do not provide protections/rights to solar (sun) access
- Most focus on traditional solar panels

# Some of the Problems with Retrofitting on Single Family Structures

- Orientation of buildings
- Pitch of Existing Roofs
- Limited Roof Space



# Roof Mounted Panels

- Most still are limiting to rear with some side yard placement
- Most limit vertical projection to 5 feet above roof plane
- Some are allowing panels to project into the into the front yard (2'); rear yard (6'); and side yard (2').

# Roof Mounted Panels

- Most allow solar panels as the surface layer of the roof structure with no additional apparent change in relief or projection on any roof elevation (solar shingles)



# Ground Mounted Panels

## ➤ **Location**

Most provisions limit location to the rear yard but some are allowing side yard placement

## ➤ **Setbacks**

Wide range of setbacks are being allowed:

Directly adjacent to the building

Five feet from the rear or side property lines

Within the building setback

## ➤ **Height**

Ranges from 5 feet to 12 feet in height. Typically much lower than the structure

# Ground Mounted Panels

- Some are requiring screening of ground mounted systems with a fence or vegetation



# Additional Provisions

- Allow Solar Energy Systems on Legally Non-Conforming Structures



# What's Next?

San Francisco Solar Map - Windows Internet Explorer

http://sf.solarmap.org/#

San Francisco Solar Map  
A MAP OF SOLAR ACTIVITY AROUND THE CITY

Reset Map Back

Map Satellite Hybrid

Welcome Legend

Markers

Solar Installations

- Municipal
- Residential
- Commercial
- Schools/libraries
- Non-profits
- Monitoring stations
- Environmental Justice Program
- Case Study

Don't see your solar installation on the map?

What Can Solar Do For You?

11 grove street

(ex. 11 Grove Street or 11 Grove St)

get my info

SF Solar News

- NEW! Mayor Newsom's Solar Founders' Circle.
- Find out how you can get money from the City to install solar here.
- Become a Neighborhood Solar Champion!
- SF's solar permitting process
- Free Solar Classes

SF Solar Facts

- PV Systems Installed: 871
- Total capacity: 5.9MW
- Annual Energy produced: 9,625 MWh
- Annual savings: \$1,585,631
- Annual CO2 savings: 7,180,287 lbs

2010 Goal

871

11 Grove Street\*\*

My Solar Potential

Roof Size: 4695 sq. ft.  
Estimated solar PV potential: 6 - 12 kW  
Estimated electricity produced: 10950 - 21900 KWh/yr  
Estimated electricity savings: \$1804-\$3608 per year  
Estimated carbon savings: 8168.7 - 16337.4 lbs per year

Get Cost Estimates >>

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More information about installing solar

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Map locations are approximate  
Find out how we estimated your solar potential

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