SOLAR ELECTRIC PERMIT FEES IN SOUTHERN CALIFORNIA

A COMPARATIVE REPORT

By Carl Mills, Kurt Newick, Jim Stewart and Tamara Winter Compeán

Version 1.4

Contents

1 Executive Summary

In early 2009, several Sierra Club chapters surveyed 250 municipalities in Southern California to determine their fees and processing times for the permits to install photovoltaic (PV) energy systems (solar panels) on residential rooftops. The survey found that fees for a typical PV system varied from $0 to over $1,500. The goal of this report is to publicize the role those municipal governments play in helping, or hindering, homeowners who want to contribute to California's supply of renewable solar energy.

2 Survey Parameters

2.1 Geographic Scope

The survey included all the municipalities in the following counties (with the corresponding Sierra Club chapter in parentheses):

- Imperial (San Diego)
- Kern (Kern-Kaweah)
- Los Angeles (Angeles)
- Orange (Angeles)
- Riverside (San Gorgonio)
- San Bernardino (San Gorgonio)
- San Diego (San Diego)
- San Luis Obispo (Santa Lucia)
- Santa Barbara (Los Padres)
- Ventura (Los Padres)

2.2 Customers

Only residential single-family homeowners (commercial installations are NOT included).

2.3 Survey Period

February 1 to April 13, 2009. Note that the data in this document are frequently updated to reflect our awareness of changes and corrections to the fees that the municipalities originally reported.

2.4 Survey Questions

The survey team asked each municipality the same questions, as follows:

- **Permit fee**—"What is the total[1] cost for a permit to install a 3kW solar electric system on a composite-shingle roof of a single-story residence in your jurisdiction (assuming the system cost is $27,000 before the California Solar Initiative[1] [CSI] rebate)? The system will be professionally installed and mounted flush to the roof. It will have 1 inverter and 20 solar modules. It will be 320 square feet in size and have a weight load of 3 pounds per square foot."
- **Fee calculation**—"Is the fee primarily based on valuation (system costs) or a fixed cost, independent of system cost?"
- **Permit processing time**—"Are solar electric permits issued over the counter? If not, how many days typically elapse between permit submittal and issuance?"

[1] *Total* here means the combined cost for all the various fees and reviews (e.g. electrical review, plan check, issuance fee, fees charged by other city departments (such as planning and fire), required state fees, etc.)

Some cities charge higher fees for installations that require more staff time and resources from the permitting authority. Therefore, the survey team provided the following specifications when conducting the survey to equalize the comparisons across jurisdictions:

- All equipment is Underwriter's Laboratory (UL) approved.
- 2 DC source circuits of 10 panels wired in series (assume wire sizing is up to code).
- Professionally engineered solar mounting system.
- Assume professional installation by a California licensed solar contractor (C46 license category).
- 1 A/C disconnect (not fused).
- Existing 125 amp electrical subpanel is used with 1 new 20-amp circuit breaker to connect inverter output to the household electrical system.
- The PV system is connected to the utility's electric grid (grid-tied) with no batteries or charge controllers.
- The California Energy Commission (CEC) has certified the solar equipment and it is eligible for the CSI rebate.
- Assume a full set of plans for the permit submittal package, including a wiring schematic and site plan (showing the roof, solar modules and locations of the inverter and main electrical meter). Assume wire sizing and other electrical calculations are shown. The plans for the inverter, solar modules and solar mounting system include specification sheets of the equipment being installed.
- Building that will support the solar panels is built to modern building codes, can structurally support the extra 3 pounds per square foot of weight, and rafters are not over-spanned.

3 Survey Highlights

The survey revealed huge disparities in how different local governments have helped or hindered residents who want to install PV systems. In measuring how *solar friendly* municipalities are, we use the following criteria:

- **Permit fee**: The average PV permit fee in the survey area is $**493**. We recommend a maximum of $**324**[2].
- **Processing time**: Most jurisdictions took **1–2 weeks** to issue a PV permit. We encourage **over-the-counter**[3] (OTC) issuance for standard PV applications that are complete and contain no errors. We recommend a *maximum* time-to-issuance of **one week or less**.

The following subsections list some of the best, and worst, survey findings. (See Section 6 "Survey Results" for the complete findings.)

3.1 Lowest Fees

21 municipalities offer *free* PV permits. 104 municipalities charge $324 or less.

[2] See Section 5.4.2 "Calculating a Flat Fee for Cost Recovery" for an explanation of how we determined this recommended maximum.

[3] OTC issuance means the PV applicant receives the permit during his or her initial visit to the building department.

3.2 Highest Fees

70 municipalities charge $700 or more for PV permits.

3.3 Shortest Processing Times

41 municipalities consistently issue PV permits over-the-counter (OTC)[4].

3.4 Longest Processing Times

34 municipalities consistently take over two weeks (10 business days) to issue PV permits.

3.5 Solar Friendly Municipalities

The following municipalities stand out as among the most solar friendly, as they issue PV permits over-the-counter (OTC) and waive permit fees.

- Burbank
- City of San Bernardino
- San Clemente[5]
- San Diego County
- Ventura County

Besides these five municipalities, many others meet our definition of solar friendly in that they offer OTC issuance and charge fees no higher than our recommended maximum ($324). See Section 6 "Survey Results" for complete rankings of all the surveyed municipalities.

3.6 Worst Practices

The following permit requirements contribute the most to exorbitant fees and long processing times in the survey's least solar-friendly municipalities.

- **Valuation-based fees**: The practice of basing a permit fee on the cost of a PV system contributes more to high fees than any other factor. Municipalities often apply valuation-based fees to various home improvement projects that require permits. However, this is unsuitable for PV systems due to their high material costs (relative to installation costs), which have no bearing on the staff-hours a municipality must devote to review PV systems of different sizes. Excessive solar permit fees such as those yielded when fees are calculated using the valuation method are disfavored and inconsistent with the California Solar Rights Act. For details, see Section 5.5.2 "Laws Governing PV Permits and Fees."
- **Fire department reviews**: These can add unnecessary fees and up to two weeks to the processing time for a permit. Some fire department regulations can also severely restrict the placement of PV systems, reducing their power generation capacity.

[4] The word "*consistently*" here distinguishes these 41 municipalities from others that issue OTC permits *infrequently* depending on various factors. See Section 6.2 for a complete discussion of this issue.

[5] San Clemente initiated its fee waiver program on 8/12/2008. The program runs until 6/30/09, when the San Clemente City Council will review it. The council will decide whether or not to extend the program based on its success.

- **Public works department reviews**: These can require homeowners to pay for such things as sidewalk replacement or tree maintenance before the building department can issue the PV permit. In at least one municipality, this review extended permit processing up to 15 days.
- **Planning department reviews**: Having a department other than the building department review PV plans for zoning issues (setbacks and height restrictions) can increase both the time and cost to process a PV permit. In some municipalities, the planning department also evaluates PV permit applications based on aesthetic considerations. Note that the California Solar Rights Act (California Government Code Section 65850.5 (b)) limits the review of solar energy systems by city building officials to whether they meet applicable health and safety requirements. Discretionary reviews, including a design review for aesthetics, are prohibited.
- **Municipal utility approvals**: Some municipalities that have their own electric utility add additional obstacles to obtaining a PV permit by requiring prior utility review and approval of paper work such as rebate/incentive forms and interconnection/net metering agreements before issuing PV permits. This can substantially delay permit issuance.

4 The Benefits of Solar

As previously stated, the goal of this report is to publicize the role municipal government plays in helping, or hindering, the production of solar energy at the homeowner level. This goal is premised on the understanding that rooftop PV systems contribute a partial solution to a growing array of environmental, economic and national-security problems related to energy production. The following are some of the more obvious benefits homeowners provide to their municipalities, California, the United States and the Earth in general by installing PV systems.

- Generating PV electricity does not produce any of the greenhouse gasses (GHGs) that are responsible for global warming[ii]. In contrast, generating electricity via coal or natural gas produces massive amounts of GHGs. Solar energy currently provides just 0.2% of California's electricity. Coal provides 16.6% and natural gas provides 45.2%.[iii]
- California gets more sunshine hours than any state besides Arizona.[iv] As such, this state has a tremendous, unrealized potential for solar energy.
- PV electricity reduces our reliance on polluting energy sources such as natural gas. Natural gas emissions add tons of pollutants that cause smog and contribute to thousands of deaths and hospital visits in California every year.
- PV generates its maximum output during the day, and can help meet peak demand. This reduces the need for the most inefficient and most highly polluting power plants in the state.
- If current population trends continue, California’s population will increase from 36 million in 2007[v] to 59 million by 2050[vi]. PV, together with energy efficiency and conservation, can reduce the number of new power plants that might otherwise be required to meet the future energy needs of California’s growing population.
- Rooftop PV virtually eliminates long-distance electric transmission losses (which are around 7%) because the individual home can be both the source and destination of the energy.
- PV could provide a local source of electricity to help protect a community in time of earthquake or other emergency, when distant transmission lines and power plants might not be operating.

- Once a PV system is installed, it takes advantage of the free energy of the sun, requires minimal maintenance, and can last at least 35 years. This makes PV an outstanding long-term financial investment for homeowners.

5 Permitting Issues

Homeowners can install their own PV systems or hire solar contractors to install them. Regardless of who installs a system, the installer needs a municipal permit before installation can legally start. After installation, a municipal inspector must verify the PV system meets requirements. If it does, the inspector *signs off* the permit.

The following entities require the permit:

- **Municipalities**: A city or county government (never both) must process and issue the PV permit. Municipalities pay their own staff or outside consultants[6] to review PV plans and inspect installations.
- **Utilities**: Electric utilities require a signed-off PV permit before officially authorizing a PV system's operation and connection to the electric grid.
- **Solar rebate issuers**: Entities that issue solar rebate money (e.g. the California Energy Commission and Southern California Edison) require a signed-off permit before issuing the rebate.

Permit requirements for a PV system differ for each municipality. The following subsections describe the issues related to those requirements and their impact on permit fees and processing times.

5.1 Health and Safety

Installing systems that generate electricity and connecting them to the transmission grid is potentially dangerous. Municipalities review permits applications to ensure PV system plans meet building and electrical code requirements. These requirements protect homeowners, contractors, firemen, transmission grid technicians and the grid itself from various dangers:

- Poor installations might cause electrocution or fires, and are vulnerable to power surges during blackouts.
- A safe backflow of power into the grid is important for the PV owner and the community that relies on the grid.
- The homeowner's roof must be able to support a PV system.
- The PV system's rack and roof attachments must be water tight and meet wind-load requirements.

5.2 Unnecessary Requirements

Each city has its own set of pre-installation reviews for solar permits. The following subsections describe how some review criteria add unnecessary costs and time to the permitting process.

[6] Municipalities that receive few PV applications tend to pay outside consultants, who often charge more than staff would. PV permit fees are often higher in such cases.

5.2.1 Load-bearing Considerations

The flush-mounted PV systems that most homeowners install have a low-enough weight/area ratio that they cannot overload standard roofs. Such PV systems should not require professional engineering stamps unless the site has unique structural issues that the installer must address.

5.2.2 Wind-bearing Considerations

Flush-mounted PV systems should not require professional engineering stamps for wind loading unless the site is in an excessive wind zone: wind zone category D, with basic wind speeds of 80 miles per hour or greater, as defined by the California Building Code.

5.2.3 Fire Department Reviews

Some municipalities require a fire department review of the PV system plan to verify it meets requirements for:

- **Marking**: PV equipment labels provide emergency responders (e.g. firemen) with appropriate warning and guidance for working around and isolating the PV system.
- **Access**: Emergency responders require pathways to specific areas of the roof and emergency egress from the roof.
- **Ventilation**: Proper roof ventilation reduces the severity and effects of fire and smoke, facilitates fire fighting procedures and reduces dangers to the inhabitants.

Fire department reviews as they currently exist tend to make PV permits more expensive and extend their processing time for the following reasons:

- A fire department is often in a different location than a municipality's building department, which compels the solar applicant to make two trips.
- Some fire departments impose a guideline that PV modules be located no higher than three feet below the roof ridge. Shading issues are such that the highest parts of a roof are usually optimal for module placement; the lower the modules are, the more likely they are to fall under the shadows of trees, telephone poles and other obstructions. Thus, this guideline diminishes both the surface area available for modules and their power generation capacity.

We recommend that municipalities adopt the following measures:

- Train building department staff to verify that PV systems meet fire department requirements. This would reduce permit processing time by negating the need for the solar applicant to make trips to multiple locations.
- Reconsider imposing the guideline limiting PV modules to three feet below the roof ridge. Alternative access and venting on adjacent roof surfaces are almost always available. As such, negotiating the setback on a case-by-case basis makes more sense than strictly applying the three-foot rule to all PV systems. Some fire departments have realized this and have adopted more flexible, less restrictive setbacks.

5.2.4 Planning Department Reviews

A municipality's planning department is separate from its building department and might review PV systems for such issues as height restrictions, setbacks and zoning. Requiring multiple departments to review a single PV system increases both the time and cost to process a PV permit. Moreover, standard PV systems that are flush-mounted to a roof typically do not violate

height restrictions. We recommend that municipalities train their building department staff to verify that PV systems meet planning department requirements.

In some municipalities, the planning department also evaluates PV systems based on aesthetic considerations. Note that the California Solar Rights Act (California Government Code Section 65850.5 (b)) limits the review of solar energy systems by city building officials to whether they meet applicable health and safety requirements. Discretionary reviews, including a design review for aesthetics, are prohibited.

5.2.5 Public Works Department Reviews

Some municipalities require a public works department review for PV permits. Such reviews involve a municipal employee inspecting the public *right of ways* on the property whose owner is applying for the permit. Right of ways can include sidewalks, aprons, curbs, gutters and city street trees. If the conditions of those right of ways do not meet municipal standards (e.g. sidewalks have cracks), the municipality can charge the homeowner for the cost to upgrade the right of ways. Such reviews always increase the processing time for PV permits and can also increase their costs. We recommend that municipalities remove such review requirements for PV permits as they have no bearing on health and safety issues relating to actual PV systems (as required by Code Section 65850.5 (b) mentioned above).

5.2.6 Homeowners' Association (HOA) Reviews

Some municipalities require that homeowners obtain HOA approval to install a PV system as a condition to issue the permit. This extends the permit processing time. Moreover, some HOAs charge review fees for such approvals. We recommend that municipalities require homeowners to merely notify their HOA of their intention to install a PV system to enable prompt, over-the-counter permit issuance, as HOA reviews can take several weeks.

5.3 Inspector Training

Inspectors who review PV systems on-site after installation usually charge cities by the hour for their services. Cities pass on those charges to the solar installer, and ultimately to the customer. Therefore, a fast inspector is a less expensive inspector. To be fast and thorough, an inspector must be knowledgeable about PV systems. An inspector's expertise is a critical factor controlling both the permit cost and safety of a solar installation.

Various organizations sponsor workshops for solar inspectors, including solar contractors/manufacturers, building departments, and the International Association of Electrical Inspectors (IAEI) (see Section 9.3 for more information).

5.4 Permit Fee Assessment

5.4.1 Flat-fee vs. Valuation-based Method

Cities typically compute residential solar permit fees using a flat-fee method, a valuation-based method, or a combination of these methods. The flat-fee method applies the same fee regardless of system cost. The valuation method usually bases fees on the pre-rebate cost of a PV system: the more solar panels one purchases, the higher the fee. A consequence of the valuation method is that the more a homeowner contributes to a city's renewable energy supply, the more that homeowner must sacrifice financially when applying for a permit.

Compared to other home improvement projects, material costs for PV systems are high relative to installation costs. However, those material costs have no bearing on the resources a city must devote to review PV systems of different sizes.

According to John Cheng, the Chief Building Official of the City of Burbank, "In general, it costs the same amount of money to process a residential system regardless of the size. Generally, the systems are submitted with manufacturer specifications so there is no difference."

5.4.2 Calculating a Flat Fee for Cost Recovery

We estimate a permit fee of $324 would recover a municipality's costs to review and inspect a residential PV system. This recommended maximum assumes:

- A standard PV system as described in Section 2
- A professional permit application with no errors
- An inspector trained in PV installations
- A billable rate of $108/hour for staff-hours (this varies among municipalities)
- One hour for the plan check
- One hour for the inspection
- One hour for miscellaneous permit processing tasks

Based on these assumptions, $108/hour x 3 staff-hours = $324.

5.5 Solar Laws

5.5.1 Laws that Promote PV Energy

State law SB 107[vii] accelerates California's renewable portfolio standard and requires investor–owned utilities to achieve a 20 percent renewable electricity portfolio by the end of 2010.

California's Million Solar Roofs Initiative[viii] (SB 1) requires home developers to offer PV as an option starting January 1, 2011. This legislation created 10 years of incentives, starting in 2007, with a goal to install the equivalent of 1 million 3kW solar electric systems in California.

California law compels cities to exempt PV systems when assessing a home's value for property taxes for homeowners who retrofit solar power on their current home (California Revenue and Taxation Code Section 73).[ix]

AB 920[x], currently being considered by the California legislature, would if passed, require utilities to pay their customers for the solar energy that they produce and do not use for their own home.

5.5.2 Laws Governing PV Permits and Fees

California Government Code Section 66014 provides that fees associated with building inspections and building permits "**shall not exceed the estimated reasonable cost of providing the service for which the fee is charged**." (Emphasis added).

The California Solar Rights Act[xi] limits the review of solar energy systems by city building officials to whether they meet applicable health and safety requirements. (See California Government Code Section 65850.5 (b) and California Health and Safety Code Section

17959.1.) Discretionary reviews, including a design review for aesthetics, are prohibited. Section 65850.5(a) states: "It is the intent of the Legislature that local agencies not adopt ordinances that create unreasonable barriers to the installation of solar energy systems, including, but not limited to, design review for aesthetic purposes…." For details on this issue, see the letter of intent about solar permit fees that State Senator Lois Wolk authored. The letter, which was emailed to all California Cities on June 7, 2006, can be found at: http://www.norcalsolar.org/downloads/city_resources/WolkPVFeeLetter.pdf.

6 Survey Results

6.1 Permit Fees

In order to determine the total fees a city charged to review and approve a permit for a residential solar PV installation, our survey team members gathered information via phone, email or fax from permit technicians and building officials. Our surveyors also gathered information from city planners, fire department personnel, other city staff as well as staff from companies and agencies that provide contract services to municipalities. The following tables show the total fees from all sources in each municipality surveyed[7]. The fees were quoted for a PV system with the specifications described in Section 2 "Survey Parameters." The tables list the municipalities by fee (highest to lowest) and alphabetically (so you can find your own municipality). The average fee for the survey area appears in the bottom row. To see the fee rankings for a particular county, see Section 9.4 "Permit Fee Results by County."

Ranked by Fee	
Municipality	**Total Fee**
La Habra Heights	$1,572
Rolling Hills	$1,479
San Gabriel	$1,479
Carson	$1,473
Hawaiian Gardens	$1,427
Westlake Village	$1,389
Whittier	$1,328
Pismo Beach	$1,305
Lawndale	$1,214
Azusa	$1,197
Lomita	$1,183
Rolling Hills Estates	$1,168
Bell	$1,166
Downey	$1,164
Irwindale	$1,156
Los Angeles County	$1,144
Huntington Park	$1,100

Ranked Alphabetically	
Municipality	**Total Fee**
Adelanto	$180
Agoura Hills	$1,058
Alhambra	$213
Aliso Viejo	$924
Anaheim	$0
Apple Valley	$316
Arcadia	$283
Arroyo Grande	$350
Artesia	$1,030
Arvin	$308
Atascadero	$273
Avalon	$792
Azusa	$1,197
Bakersfield	$136
Baldwin Park	$432
Ballard	$293
Banning	$236

[7] These fees do not reflect the business license fee required by most municipalities for all firms doing business in that city. Business licenses are usually $30 to $200 and are valid for a year.

Ranked by Fee	
Municipality	**Total Fee**
Paramount	$1,082
Cerritos	$1,078
West Hollywood	$1,077
Inglewood	$1,066
Agoura Hills	$1,058
Artesia	$1,030
Dana Point	$1,020
El Monte	$1,014
Torrance	$1,009
La Mirada	$1,008
San Dimas	$1,000
Placentia	$983
Needles	$973
Industry	$967
Duarte	$965
Ontario	$954
Coachella	$954
Norwalk	$945
Hawthorne	$943
Los Alamitos	$942
Bellflower	$925
Aliso Viejo	$924
Compton	$900
Oxnard	$900
Newport Beach	$900
Santa Fe Springs	$895
San Marino	$891
Montebello	$852
South Gate	$822
West Covina	$815
South El Monte	$814
Rancho Santa Margarita	$807
Glendora	$805
Lakewood	$800
Maywood	$798
Avalon	$792
Fullerton	$791
Pico Rivera	$785
Lompoc	$763
Malibu	$761
Perris	$754
Indio	$738

Ranked Alphabetically	
Municipality	**Total Fee**
Barstow	$250
Beaumont	$416
Bell	$1,166
Bell Gardens	$450
Bellflower	$925
Beverly Hills	$350
Big Bear Lake	$415
Blythe	$54
Bradbury	$306
Brawley	$200
Brea	$466
Buellton	$293
Buena Park	$242
Burbank	$0
Calabasas	$658
Calexico	$709
California City	$681
Calimesa	$655
Camarillo	$430
Canyon Lake	$683
Carlsbad	$120
Carpinteria	$245
Carson	$1,473
Casmalia	$293
Cathedral City	$211
Cerritos	$1,078
Chino	$665
Chino Hills	$514
Chula Vista	$45
Claremont	$435
Coachella	$954
Colton	$683
Commerce	$675
Compton	$900
Corona	$660
Coronado	$268
Costa Mesa	$0
Covina	$645
Cudahy	$717
Culver City	$0
Cuyama	$293
Cypress	$625

Ranked by Fee	
Municipality	**Total Fee**
Imperial County	$737
Walnut	$735
Lake Elsinore	$735
Orange	$717
Cudahy	$717
Calexico	$709
Santa Maria	$706
Diamond Bar	$704
Ridgecrest	$702
Grover Beach	$702
Laguna Niguel	$700
Tustin	$695
Gardena	$692
Vernon	$687
Canyon Lake	$683
Colton	$683
California City	$681
Commerce	$675
Morro Bay	$675
Chino	$665
Fountain Valley	$663
Desert Hot Springs	$660
Corona	$660
Calabasas	$658
Calimesa	$655
Paso Robles	$653
Hermosa Beach	$650
Covina	$645
Laguna Woods	$633
Moorpark	$628
Temple City	$625
Cypress	$625
Yorba Linda	$614
Temecula	$604
Long Beach	$599
National City	$595
Rancho Cucamonga	$591
San Fernando	$582
Solvang	$554
San Jacinto	$530
McFarland	$524
Monrovia	$520

Ranked Alphabetically	
Municipality	**Total Fee**
Dana Point	$1,020
Del Mar	$190
Delano	$65
Desert Hot Springs	$660
Diamond Bar	$704
Downey	$1,164
Duarte	$965
El Cajon	$225
El Centro	$478
El Monte	$1,014
El Segundo	$515
Encinitas	$388
Escondido	$102
Fillmore	$155
Fontana	$0
Fountain Valley	$663
Fullerton	$791
Garden Grove	$160
Gardena	$692
Glendale	$0
Glendora	$805
Goleta	$174
Grand Terrace	$452
Grover Beach	$702
Guadalupe	$415
Hawaiian Gardens	$1,427
Hawthorne	$943
Hemet	$473
Hermosa Beach	$650
Hesperia	$296
Hidden Hills	$225
Highland	$472
Hope Ranch	$293
Huntington Beach	$0
Huntington Park	$1,100
Imperial Beach	$95
Imperial County	$737
Indian Wells	$0
Indio	$738
Industry	$967
Inglewood	$1,066
Irvine	$210

Ranked by Fee	
Municipality	**Total Fee**
Sierra Madre	$515
El Segundo	$515
Chino Hills	$514
Victorville	$513
Pomona	$510
El Centro	$478
Hemet	$473
Highland	$472
Brea	$466
San Luis Obispo County	$462
Oceanside	$455
Grand Terrace	$452
Bell Gardens	$450
Upland	$450
Montclair	$445
Yucaipa	$441
Claremont	$435
Baldwin Park	$432
Camarillo	$430
Santa Barbara	$430
Signal Hill	$419
Beaumont	$416
Big Bear Lake	$415
Guadalupe	$415
Thousand Oaks	$411
La Habra	$410
Rancho Palos Verdes	$402
Westminster	$400
Stanton	$398
Monterey Park	$395
Yucca Valley	$391
Encinitas	$388
Norco	$375
Palm Springs	$375
Kern County wildland area	$360
Seal Beach	$359
La Canada Flintridge	$356
Arroyo Grande	$350
Beverly Hills	$350
Lynwood	$350
San Juan Capistrano	$350
La Quinta	$337

Ranked Alphabetically	
Municipality	**Total Fee**
Irwindale	$1,156
Isla Vista	$293
Kern County	$225
Kern County wildland area	$360
La Canada Flintridge	$356
La Habra	$410
La Habra Heights	$1,572
La Mesa	$156
La Mirada	$1,008
La Palma	$211
La Puente	$131
La Quinta	$337
La Verne	$331
Laguna Beach	$0
Laguna Hills	$183
Laguna Niguel	$700
Laguna Woods	$633
Lake Elsinore	$735
Lake Forest	$254
Lakewood	$800
Lancaster	$58
Lawndale	$1,214
Lemon Grove	$274
Loma Linda	$0
Lomita	$1,183
Lompoc	$763
Long Beach	$599
Los Alamitos	$942
Los Alamos	$293
Los Angeles	$308
Los Angeles County	$1,144
Los Olivos	$293
Lynwood	$350
Malibu	$761
Manhattan Beach	$0
Maywood	$798
McFarland	$524
Menifee	$220
Mission Viejo	$0
Monrovia	$520
Montclair	$445
Montebello	$852

Ranked by Fee	
Municipality	**Total Fee**
La Verne	$331
Palmdale	$330
Simi Valley	$327
Ojai	$325
Apple Valley	$316
Arvin	$308
Los Angeles	$308
Bradbury	$306
Santa Clarita	$300
Hesperia	$296
Vista	$295
Ballard	$293
Buellton	$293
Casmalia	$293
Cuyama	$293
Hope Ranch	$293
Isla Vista	$293
Los Alamos	$293
Los Olivos	$293
Montecito	$293
Orcutt	$293
Santa Barbara County	$293
Santa Ynez	$293
Summerland	$293
Vandenberg Village	$293
Ventucopa	$293
Twentynine Palms	$290
Arcadia	$283
Lemon Grove	$274
Atascadero	$273
Santa Paula	$270
Coronado	$268
Murrieta	$257
Lake Forest	$254
Barstow	$250
Carpinteria	$245
Buena Park	$242
Banning	$236
El Cajon	$225
Kern County	$225
Villa Park	$225
Hidden Hills	$225

Ranked Alphabetically	
Municipality	**Total Fee**
Montecito	$293
Monterey Park	$395
Moorpark	$628
Moreno Valley	$155
Morro Bay	$675
Murrieta	$257
National City	$595
Needles	$973
Newport Beach	$900
Norco	$375
Norwalk	$945
Oceanside	$455
Ojai	$325
Ontario	$954
Orange	$717
Orange County	$16
Orcutt	$293
Oxnard	$900
Palm Desert	$0
Palm Springs	$375
Palmdale	$330
Palos Verdes Estates	$85
Paramount	$1,082
Pasadena	$198
Paso Robles	$653
Perris	$754
Pico Rivera	$785
Pismo Beach	$1,305
Placentia	$983
Pomona	$510
Port Hueneme	$100
Poway	$131
Rancho Cucamonga	$591
Rancho Mirage	$194
Rancho Palos Verdes	$402
Rancho Santa Margarita	$807
Redlands	$110
Redondo Beach	$202
Rialto	$0
Ridgecrest	$702
Riverside	$210
Riverside County	$215

Ranked by Fee	
Municipality	**Total Fee**
Menifee	$220
Riverside County	$215
Wildomar	$215
Alhambra	$213
Cathedral City	$211
La Palma	$211
Irvine	$210
Riverside	$210
Santee	$206
Redondo Beach	$202
Brawley	$200
Pasadena	$198
Rancho Mirage	$194
Del Mar	$190
Solana Beach	$190
Laguna Hills	$183
Adelanto	$180
Goleta	$174
Garden Grove	$160
La Mesa	$156
Fillmore	$155
Moreno Valley	$155
Ventura	$150
Bakersfield	$136
La Puente	$131
Poway	$131
Rosemead	$122
Carlsbad	$120
Wasco	$112
Redlands	$110
Escondido	$102
Shafter	$102
Port Hueneme	$100
San Marcos	$100
Imperial Beach	$95
San Diego	$93
South Pasadena	$88
Palos Verdes Estates	$85
Delano	$65
Lancaster	$58
Blythe	$54
Tehachapi	$53

Ranked Alphabetically	
Municipality	**Total Fee**
Rolling Hills	$1,479
Rolling Hills Estates	$1,168
Rosemead	$122
San Bernardino County	$0
San Bernardino (City)	$0
San Clemente	$0
San Diego	$93
San Diego County	$0
San Dimas	$1,000
San Fernando	$582
San Gabriel	$1,479
San Jacinto	$530
San Juan Capistrano	$350
San Luis Obispo	$40
San Luis Obispo County	$462
San Marcos	$100
San Marino	$891
Santa Ana	$0
Santa Barbara	$430
Santa Barbara County	$293
Santa Clarita	$300
Santa Fe Springs	$895
Santa Maria	$706
Santa Monica	$0
Santa Paula	$270
Santa Ynez	$293
Santee	$206
Seal Beach	$359
Shafter	$102
Sierra Madre	$515
Signal Hill	$419
Simi Valley	$327
Solana Beach	$190
Solvang	$554
South El Monte	$814
South Gate	$822
South Pasadena	$88
Stanton	$398
Summerland	$293
Tehachapi	$53
Temecula	$604
Temple City	$625

Ranked by Fee	
Municipality	**Total Fee**
Chula Vista	$45
San Luis Obispo	$40
Orange County	$16
Anaheim	$0
Burbank	$0
Costa Mesa	$0
Culver City	$0
Fontana	$0
Glendale	$0
Huntington Beach	$0
Indian Wells	$0
Laguna Beach	$0
Loma Linda	$0
Manhattan Beach	$0
Mission Viejo	$0
Palm Desert	$0
Rialto	$0
San Bernardino (City)	$0
San Bernardino County	$0
San Clemente	$0
San Diego County	$0
Santa Ana	$0
Santa Monica	$0
Ventura County	$0
Average	**$493**

Ranked Alphabetically	
Municipality	**Total Fee**
Thousand Oaks	$411
Torrance	$1,009
Tustin	$695
Twentynine Palms	$290
Upland	$450
Vandenberg Village	$293
Ventucopa	$293
Ventura	$150
Ventura County	$0
Vernon	$687
Victorville	$513
Villa Park	$225
Vista	$295
Walnut	$735
Wasco	$112
West Covina	$815
West Hollywood	$1,077
Westlake Village	$1,389
Westminster	$400
Whittier	$1,328
Wildomar	$215
Yorba Linda	$614
Yucaipa	$441
Yucca Valley	$391
Average	**$493**

6.2 Composite Ranking Charts: a Measure of Overall Solar Friendliness

The charts in this section express as a single value or composite rank the impact that fees and policies related to permit issuance have on solar customers in each municipality. To rank solar friendliness, the charts quantify the municipalities' fees and time-to-issuance for residential PV permits.

While ranking municipalities by their permit fees is simple, it is equally important (though more complicated) to rank municipalities according to how long they take to issue permits. Time-to-issuance is important because it correlates directly with the personnel costs that both municipalities and solar contractors must spend so that a solar installation can move forward. In other words, "time is money" for all the parties involved including, ultimately, the solar customer.

The following subsections explain how we determined the values for the composite ranking charts. The last subsection includes the charts themselves.

6.2.1 Time-to-issuance Ranking Criteria

Ranking municipalities by time-to-issuance involves quantifying factors that can hasten or delay the permit process. We have applied the following criteria in determining time-to-issuance values:

1. The most solar friendly municipalities consistently issue permits for standard PV systems over-the-counter (OTC). We assigned municipalities that indicated a general practice of issuing OTC permits the best time-to-issuance value (zero).
2. In some municipalities, OTC issuance is possible under certain circumstance (e.g. by appointment, if personnel are not too busy, if certain personnel are in the office, etc.). When a permit is not issued over the counter, the solar applicant must return to the building department at a later date to receive the permit. Such jurisdictions also provided a time-to-issuance estimate for permit approval, which applies when OTC permit issuance is not possible. To derive the time-to-issuance business days ("TTI Days") for municipalities with a possibility of OTC issuance, we adjusted their average time or days to issue permits by the estimated likelihood of an OTC issuance.
3. Where a municipality *normally* offers OTC (zero days) PV permit issuance, we weighted this more favorably than where a municipality claimed OTC was possible in certain circumstances but was not the norm.
4. Besides permit approvals from the building department staff, some municipalities require prior approval from other departments (e.g. fire, planning, public works or municipal utilities) or even an entirely separate agency (e.g. agencies contracted for fire protection) before they can issue permits. We added the time to obtain such approvals to those municipalities' overall time-to-issuance estimate.
5. Many municipalities responded to the survey question regarding time-to-issuance with a time range. For the composite ranking chart, we use the average of the quoted time range. For example, if the quoted range is 1–2 weeks, the charts use 7.5 business days in the TTI Days column.[8]
6. Some Los Angeles County Fire departments issue PV permits OTC if less than 50% of a roof section is covered by PV panels. Otherwise the permit is taken in and issued within 10 days (0 – 10 days is the range). We've assumed the PV panels cover more than 50% of the roof surface, and used 10 days for FD review times, to abide by policy for these Fire departments.

Note: When calculating the time-to-issuance of the solar permit, all respondents were instructed to assume the initial permit application was complete and without errors. Applications that are incomplete or have errors understandably require additional processing time. See Section 7 for a list of "Recommendations" to streamline the permitting process and reduce the number of applications that are incomplete or have errors.

[8] 1 Week (5 Business Days) + 2 Weeks (10 Business Days) = 15 Business Days. We divided by 2 to find the average time to issuance of 7.5 days.

6.2.2 Definitions for Time-to-issuance Terms

Municipalities responded to the time-to-issuance question using various units and terminology (e.g. minutes, hours, days, "a few days", weeks, etc.). For the composite ranking chart, we standardized these responses:

1. We used over-the-counter (OTC) permit issuance with a TTI assigned rank of zero days for PV permits issued in less than a day.
2. We calculated all times using business days. For example, an issuance time of one week is five business days.
3. We define a time estimate of a "few days" as 3.5 business days.
4. The TTI Claimed column reports the total time it took for all required reviews and approvals in all municipal departments and outside governmental agencies. Surveyors relied on respondents to provide complete information and have reported these additional required reviews to the best of our ability.
5. Where possible, the report charts use an estimate of actual time to issue permits and approvals. Where actual time was not available, we used an average of the standard time-range that department staff were instructed to quote for permit review, issuance and approvals. A few respondents were adamant that this report not list an over-the-counter turn-around as a possibility or that we use the maximum number of days generally quoted for permit review, approval and turn-around.
6. Where the building counter required additional approvals and reviews from planning, zoning, fire, public works, municipal utility departments, etc., prior to issuing a permit, surveyors attempted to ascertain these additional review times. Unless a city expressly indicated the building counter would not accept a permit application until these other departments or agencies had signed off on the permit application, it was assumed that all reviews could be conducted concurrently. Therefore except where noted, these extra department and/or agency permit reviews only add additional time (TTI Claimed) when they take longer than the building counter review.
7. Although in a few instances cities indicated that the building counter would not issue a permit without approval of a private Homeowners' Association (HOA), the review time and fees associated with HOA solar permit reviews is outside the scope of this study and therefore not considered.
8. The following characters and abbreviations found in the composite chart are defined as:
   - "Bldg": Building department
   - "FD": Fire department
   - "+": Times were added to the building department review time as permit reviews occur sequentially (one after the other) for these departments.
   - "/": Extra time was not necessarily added to the building department review time as permit reviews can be processed concurrently between departments.

6.2.3 Composite Ranking Formula

We used the following formula to calculate the composite rank (based on the combined fee plus time-to-issuance value) of each municipality:

1. Composite rank factor: Divide the maximum fee by the maximum time. Then divide the fee by this factor to make the fee and time values numerically equivalent: 44.9 (i.e., the maximum fee and TTI Days used to compute this are: $1,572 fee / 35 days = 44.9 composite rank factor).
2. Add the TTI number in days to the total fee divided by the composite rank factor to get the "Composite Rank" score. For example:

   Composite Rank formula: TTI Days + (Total Fee / composite rank factor) = Composite Rank

   For example: Composite rank factor = 44.9; TTI Days = 3; Total Fee = $300

   Composite Rank computation example: 3 days + ($300 / 44.9) = 9.7 Composite Rank
3. Rank the municipalities by the composite score. A zero fee and zero time-to-issuance (OTC) are optimal.

6.2.4 Composite Ranking Charts

The following charts grade each municipality in terms of how solar friendly it is. This is expressed as a *composite rank* that combines permit fees and processing times. The best possible rank is zero, for municipalities that waive permit fees and consistently provide OTC issuance. Higher ranks indicate cities with high fees, long permit processing times or both. Cities with lower scores generally had lower fees and/or shorter permit processing times than cities with higher ranks.

The first chart lists the municipalities in the order of composite rank (from worst to best). The second chart lists the municipalities in alphabetical order. In both charts, the average rank appears in the bottom row.

6.2.4.1 Composite Chart in Order of Rank

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
La Mirada	$1,008	N	6 - 8 weeks	35.0	57.4
West Hollywood	$1,077	N	4 - 6 weeks bldg / 0-10 days FD	25.0	49.0
Azusa	$1,197	N	1 week bldg / 21 days Utility / 0-10days FD	21.0	47.7
Hawthorne	$943	N	4 - 6 weeks	25.0	46.0
La Habra Heights	$1,572	N	2 weeks	10.0	45.0
Torrance	$1,009	N	3 - 5 weeks	20.0	42.5
Hawaiian Gardens	$1,427	N	10 days	10.0	41.8
San Gabriel	$1,479	N	7 - 10 days	8.5	41.4
Coachella	$954	N	1 Month	20.0	41.2
Colton	$683	N	4 - 6 weeks	25.0	40.2
Huntington Park	$1,100	N	2 - 4 weeks bldg / 10 days FD	15.0	39.5
Pismo Beach	$1,305	N	10 days	10.0	39.1
Bell	$1,166	N	10 - 14 days bldg / 10 days FD	12.0	38.0

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Artesia	$1,030	N	3 weeks	15.0	37.9
Downey	$1,164	N	few days - 4 weeks	12.0	37.9
Carson	$1,473	Y	1 day bldg + 2-4 days FD	4.0	36.8
Ontario	$954	N	15 days	15.0	36.2
Westlake Village	$1,389	N	1 - 2 days bldg / 2-5 days FD	5.0	35.9
Bellflower	$925	N	15 days	15.0	35.6
Los Angeles County	$1,144	Y	2 hours bldg + 0-10 days FD	10.0	35.5
Lakewood	$800	N	3 - 4 weeks bldg / 10 days FD	17.5	35.3
Paramount	$1,082	N	10 days bldg / 10 days FD	10.0	34.1
Cerritos	$1,078	Y	2 weeks bldg / 10 days FD	10.0	34.0
El Segundo	$515	N	4 - 5 weeks bldg / 3 weeks FD	22.5	34.0
Rolling Hills	$1,479	Y	0 to 2 days bldg + 2-6 wks HOA not included	1.0	33.9
Tustin	$695	N	3 - 4 weeks	17.5	33.0
San Dimas	$1,000	N	10 days	10.0	32.3
Paso Robles	$653	N	15 - 20 days	17.5	32.0
Placentia	$983	N	2 weeks	10.0	31.9
Chino	$665	Y	OTC - 3 to 4 weeks / 7-10 days FD	16.5	31.3
Norwalk	$945	N	10 days	10.0	31.1
Lawndale	$1,214	Y	2 hours - 4 days bldg / 2-4 days FD	4.0	31.0
Dana Point	$1,020	N	1 - 2 weeks	7.5	30.2
Compton	$900	Y	1 - 3 weeks	10.0	30.0
Santa Fe Springs	$895	Y	OTC bldg + 10 days FD	10.0	29.9
San Marino	$891	N	2 weeks	10.0	29.8
Whittier	$1,328	Y	0 days	0.0	29.6
Lomita	$1,183	Y	0 days bldg + 2- 4 days FD	3.0	29.3
Rolling Hills Estates	$1,168	Y	0 - 2 hours bldg + 2 - 4 days FD	3.0	29.0
Montebello	$852	N	2 weeks	10.0	29.0
Los Alamitos	$942	N	1 - 2 weeks	7.5	28.5
South Gate	$822	Y	0 - 10 days bldg / 0-10 days FD	10.0	28.3
Aliso Viejo	$924	N	1 - 2 weeks	7.5	28.1
Maywood	$798	Y	1 hour bldg + 0-10 days FD	10.0	27.8
Fullerton	$791	N	2 weeks	10.0	27.6
Bell Gardens	$450	N	3 - 4 weeks bldg / 10 days FD	17.5	27.5
Pico Rivera	$785	N	2 weeks bldg / 10 days FD	10.0	27.5
South El Monte	$814	N	8 - 10 days	9.0	27.1
Covina	$645	N	10 - 15 days	12.5	26.9
Inglewood	$1,066	Y	OTC - few days bldg / 2-4 days FD	3.0	26.7
West Covina	$815	N	7 - 10 days	8.5	26.7
Sierra Madre	$515	N	2 - 4 weeks	15.0	26.5
Lake Elsinore	$735	N	2 weeks	10.0	26.4
Agoura Hills	$1,058	N	2 - 3 days	2.5	26.1

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Cudahy	$717	N	10 days bldg / 10 days FD	10.0	26.0
Irwindale	$1,156	Y	2 hours bldg	0.0	25.7
Diamond Bar	$704	N	10 days bldg / 0-10 days FD	10.0	25.7
Needles	$973	N	3 - 5 Days	4.0	25.7
Rancho Cucamonga	$591	N	2.5 weeks	12.5	25.7
Vernon	$687	N	2 weeks	10.0	25.3
Canyon Lake	$683	N	2 weeks	10.0	25.2
Commerce	$675	N	1 - 3 weeks bldg / 10 days FD	10.0	25.0
Industry	$967	Y	0 days bldg + 0-10 days FD	3.5	25.0
Santa Ana	$0	N	3 weeks (bldg & FD) / 5 weeks planning	25.0	25.0
Fountain Valley	$663	N	2 weeks	10.0	24.8
Baldwin Park	$432	N	0-2 days bldg/ 1- 2 wks plan + 0-10 days FD	15.0	24.6
Duarte	$965	Y	several days	3.0	24.5
Temecula	$604	N	10 - 12 days	11.0	24.5
Laguna Woods	$633	N	2 weeks	10.0	24.1
Oxnard	$900	N	3 - 5 days	4.0	24.0
Temple City	$625	Y	2 hours bldg + 10 days FD	10.0	23.9
Walnut	$735	N	1 - 2 weeks bldg / (no FD review normal)	7.5	23.9
Yorba Linda	$614	N	2 weeks	10.0	23.7
El Monte	$1,014	Y	0 - 5 days (OTC on Mon. or Thur.)	1.0	23.6
Santa Maria	$706	N	1 - 2 weeks	7.5	23.2
California City	$681	N	1 - 15 days	8.0	23.2
Laguna Niguel	$700	N	1 - 2 weeks	7.5	23.1
Glendora	$805	N	1 week bldg	5.0	22.9
Montclair	$445	N	2 - 3 weeks	12.5	22.4
Desert Hot Springs	$660	N	1 - 2 weeks	7.5	22.2
Corona	$660	N	< 2 weeks	7.5	22.2
Hermosa Beach	$650	N	1 - 2 weeks	7.5	22.0
Malibu	$761	Y	0 days bldg + 2-5 days FD	5.0	22.0
Imperial County	$737	N	1 - 10 days	5.5	21.9
Signal Hill	$419	N	10 - 15 days	12.5	21.8
Big Bear Lake	$415	N	2 - 3 weeks	12.5	21.7
Indio	$738	N	1 week	5.0	21.4
Lompoc	$763	N	3 - 5 days	4.0	21.0
National City	$595	N	1 - 2 weeks	7.5	20.8
Highland	$472	N	2 weeks	10.0	20.5
San Fernando	$582	N	5 - 10 days	7.5	20.5
Newport Beach	$900	Y	0 days	0.0	20.0
Twentynine Palms	$290	N	< 15 days	13.5	20.0
Chino Hills	$514	N	15 min. - 10 days bldg / 7-10 days FD	8.5	20.0
Escondido	$102	N	15 - 20 days	17.5	19.8

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Claremont	$435	Y	0 days bldg + 0-10 days FD	10.0	19.7
Avalon	$792	N	2 days	2.0	19.6
Calimesa	$655	N	1 week	5.0	19.6
Gardena	$692	Y	0 days bldg + 2-4 days FD	4.0	19.4
La Habra	$410	N	1 - 2 weeks bldg / 10 days FD	10.0	19.1
Upland	$450	N	< 2 weeks	9.0	19.0
Goleta	$174	N	2 - 4 weeks	15.0	18.9
Perris	$754	N	1 - 3 days	2.0	18.8
Yucca Valley	$391	N	10 days	10.0	18.7
Encinitas	$388	N	1 week bldg / OTC planning / 5-10 days FD	10.0	18.7
Morro Bay	$675	N	1 - 6 days	3.5	18.5
San Luis Obispo County	$462	N	1 - 15 days	8.0	18.3
Rancho Santa Margarita	$807	Y	OTC - 5 days (OTC if complete submittal)	0.0	18.0
Brea	$466	N	1 - 2 weeks	7.5	17.9
Lynwood	$350	Y	OTC bldg + 0-10 days FD	10.0	17.8
Calexico	$709	N	2 days	2.0	17.8
Yucaipa	$441	N	< 10 days	7.5	17.3
Cathedral City	$211	N	2 - 3 weeks	12.5	17.2
Ridgecrest	$702	N	1 - 2 days	1.5	17.1
Norco	$375	Y	OTC - 2 weeks (2 weeks normal)	8.5	16.9
El Centro	$478	N	2 days - 2 weeks	6.0	16.6
Hesperia	$296	N	10 days	10.0	16.6
Orange	$717	Y	0 days	0.0	16.0
Grover Beach	$702	Y	0 days	0.0	15.6
Barstow	$250	N	2 weeks	10.0	15.6
Hemet	$473	N	1 week	5.0	15.5
Seal Beach	$359	N	1 - 2 weeks	7.5	15.5
Cypress	$625	Y	OTC - 4 days	1.5	15.4
Monrovia	$520	N	3 - 4 days	3.5	15.1
Culver City	$0	N	3 weeks	15.0	15.0
Glendale	$0	Y	0 days bldg + 3 weeks Glendale DWP	15.0	15.0
Calabasas	$658	Y	0 days	0.0	14.7
Redondo Beach	$202	N	2 weeks	10.0	14.5
Solvang	$554	N	1 - 3 days	2.0	14.3
Bradbury	$306	N	1 - 2 weeks	7.5	14.3
Guadalupe	$415	Y	1 week	5.0	14.2
Ballard	$293	N	1 - 2 weeks	7.5	14.0
Buellton	$293	N	1 - 2 weeks	7.5	14.0
Casmalia	$293	N	1 - 2 weeks	7.5	14.0
Cuyama	$293	N	1 - 2 weeks	7.5	14.0
Hope Ranch	$293	N	1 - 2 weeks	7.5	14.0

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Isla Vista	$293	N	1 -2 weeks	7.5	14.0
Los Alamos	$293	N	1 - 2 weeks	7.5	14.0
Los Olivos	$293	N	1 -2 weeks	7.5	14.0
Montecito	$293	N	1 - 2 weeks	7.5	14.0
Orcutt	$293	N	1 - 2 weeks	7.5	14.0
Santa Barbara County	$293	N	1 - 2 weeks	7.5	14.0
Santa Ynez	$293	N	1 - 2 weeks	7.5	14.0
Summerland	$293	N	1 - 2 weeks	7.5	14.0
Vandenberg Village	$293	N	1 - 2 weeks	7.5	14.0
Ventucopa	$293	N	1 - 2 weeks	7.5	14.0
Moorpark	$628	Y	1 hour max	0.0	14.0
Palmdale	$330	N	3 days - 2 weeks bldg / 1-2 weeks FD	6.5	13.8
Monterey Park	$395	Y	OTC - 1 week to 2 weeks	5.0	13.8
Garden Grove	$160	N	1 - 2 weeks bldg / 10 days FD	10.0	13.6
Coronado	$268	N	1 - 2 weeks	7.5	13.5
Victorville	$513	N	2 days	2.0	13.4
Palm Springs	$375	N	1 week	5.0	13.4
Long Beach	$599	Y	0 days	0.0	13.3
Kern County wildland area	$360	N	0 days + 1 week FD	5.0	13.0
Carpinteria	$245	N	1 - 2 weeks	7.5	12.9
La Puente	$131	Y	0 days bldg + 0-10 days FD	10.0	12.9
Westminster	$400	Y	OTC - 2 weeks	4.0	12.9
Orange County	$16	N	2 - 3 weeks	12.5	12.9
San Jacinto	$530	Y	1 - 2 days	1.0	12.8
Beaumont	$416	N	< 1 week	3.5	12.8
El Cajon	$225	N	1 - 2 weeks	7.5	12.5
La Quinta	$337	N	1 week	5.0	12.5
Riverside	$210	N	1 - 2 weeks	7.5	12.2
Apple Valley	$316	N	1 week	5.0	12.0
Pomona	$510	Y	OTC (possible) to 1 day bldg.	0.5	11.9
Rancho Mirage	$194	N	1 - 2 weeks	7.5	11.8
McFarland	$524	Y	0 days	0.0	11.7
Oceanside	$455	Y	0 - 3 days	1.3	11.4
Ojai	$325	N	4 days	4.0	11.2
Blythe	$54	N	1 - 3 weeks	10.0	11.2
Grand Terrace	$452	Y	OTC - 2 days	1.0	11.1
San Diego	$93	N	8 - 10 days	9.0	11.1
Lake Forest	$254	Y	OTC - 1 week bldg / 1 week FD	5.0	10.6
Bakersfield	$136	N	5 - 10 days	7.5	10.5
Brawley	$200	N	2 days to 2 weeks	6.0	10.5
Beverly Hills	$350	N	2 - 3 days	2.5	10.3

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Stanton	$398	Y	OTC - 1 to 2 days (OTC not likely)	1.3	10.1
Lemon Grove	$274	N	3 - 5 days	4.0	10.1
Hidden Hills	$225	Y	0 days bldg + 2-5 days FD	5.0	10.0
Costa Mesa	$0	N	1 - 3 weeks	10.0	10.0
Rialto	$0	N	10 days	10.0	10.0
Arcadia	$283	N	3 - 4 days	3.5	9.8
Arroyo Grande	$350	N	1 - 3 days	2.0	9.8
Camarillo	$430	Y	OTC	0.0	9.6
Santa Barbara	$430	Y	1 hour	0.0	9.6
Buena Park	$242	Y	OTC - 10 days	4.0	9.4
Banning	$236	N	3 - 5 days	4.0	9.3
Thousand Oaks	$411	Y	1 hour	0.0	9.2
Atascadero	$273	N	1 - 5 days	3.0	9.1
Fontana	$0	N	few days - 3 weeks	9.0	9.0
Rancho Palos Verdes	$402	Y	1 hour	0.0	9.0
Santee	$206	N	3 - 5 days	4.0	8.6
Palm Desert	$0	N	7 - 10 days	8.5	8.5
La Mesa	$156	N	5 days	5.0	8.5
Chula Vista	$45	N	0 - 7 days (7 day rank requested)	7.0	8.0
San Juan Capistrano	$350	Y	OTC - 3 days (OTC normal)	0.2	8.0
La Canada Flintridge	$356	Y	30 min.	0.0	7.9
Pasadena	$198	Y	OTC bldg (includes FD) + few days DWP	3.5	7.9
La Verne	$331	Y	0 - 1 days	0.5	7.9
Arvin	$308	Y	OTC (with eng. & calcs) - 3 days	1.0	7.9
Santa Clarita	$300	Y	1 day	1.0	7.7
Irvine	$210	N	1day - 1 week	3.0	7.7
Adelanto	$180	N	3 - 4 days	3.5	7.5
Anaheim	$0	N	5 -10 days	7.5	7.5
Indian Wells	$0	N	1 - 2 weeks	7.5	7.5
Simi Valley	$327	Y	1 hour max	0.0	7.3
Poway	$131	Y	OTC (if plan checker in) - 1 to 2 weeks	4.0	6.9
Los Angeles	$308	Y	0 days	0.0	6.9
La Palma	$211	Y	1 week	2.0	6.7
Vista	$295	Y	0 days	0.0	6.6
Ventura	$150	Y	OTC - 1 week (includes bldg and FD)	3.0	6.3
Lancaster	$58	Y	0 days bldg / 5-10 days FD (1 week normal)	5.0	6.3
Del Mar	$190	N	2 days	2.0	6.2
Solana Beach	$190	N	2 days	2.0	6.2
Santa Paula	$270	Y	1 hour with appointment	0.0	6.0
Kern County	$225	Y	0 days (no FD)	1.0	6.0
Wasco	$112	Y	3 - 5 days	3.5	6.0

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Murrieta	$257	Y	OTC	0.0	5.7
Villa Park	$225	Y	2 hours	0.0	5.0
Laguna Beach	$0	N	1 week	5.0	5.0
Manhattan Beach	$0	N	1 week bldg / 1-2 days FD	5.0	5.0
Santa Monica	$0	N	1 week	5.0	5.0
Menifee	$220	Y	0 days	0.0	4.9
Riverside County	$215	Y	OTC	0.0	4.8
Wildomar	$215	Y	0 days	0.0	4.8
Alhambra	$213	Y	0 days	0.0	4.7
Imperial Beach	$95	N	2 - 3 days	2.5	4.6
Shafter	$102	N	1 - 3 days	2.0	4.3
Laguna Hills	$183	Y	0 days	0.0	4.1
Fillmore	$155	Y	OTC	0.0	3.5
Moreno Valley	$155	Y	OTC	0.0	3.5
Tehachapi	$53	N	1 - 3 days	2.0	3.2
Mission Viejo	$0	N	3 days	3.0	3.0
San Bernardino County	$0	N	3 Days	3.0	3.0
Rosemead	$122	Y	0 days	0.0	2.7
Carlsbad	$120	Y	0 days	0.0	2.7
Redlands	$110	Y	OTC	0.0	2.4
Port Hueneme	$100	Y	OTC if simple, else 1 week	0.2	2.4
San Marcos	$100	Y	OTC (screened installers) - 2 days	0.2	2.4
Huntington Beach	$0	Y	OTC - 5 days	2.0	2.0
South Pasadena	$88	Y	0 days	0.0	1.9
Palos Verdes Estates	$85	Y	OTC bldg + 1 - 2 weeks HOA	0.0	1.9
Delano	$65	Y	OTC with calcs	0.0	1.4
San Luis Obispo	$40	Y	0 days	0.0	0.9
Burbank	$0	Y	0 days	0.0	0.0
Loma Linda	$0	N	OTC	0.0	0.0
San Bernardino (City)	$0	Y	OTC	0.0	0.0
San Clemente	$0	Y	0 days	0.0	0.0
San Diego County	$0	Y	0 days	0.0	0.0
Ventura County	$0	Y	OTC	0.0	0.0
Average	**$493**			**6.6**	**17.6**

6.2.4.2 Composite Chart in Alphabetical Order

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Adelanto	$180	N	3 - 4 days	3.5	7.5
Agoura Hills	$1,058	N	2 - 3 days	2.5	26.1
Alhambra	$213	Y	0 days	0.0	4.7
Aliso Viejo	$924	N	1 - 2 weeks	7.5	28.1

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Anaheim	$0	N	5 -10 days	7.5	7.5
Apple Valley	$316	N	1 week	5.0	12.0
Arcadia	$283	N	3 - 4 days	3.5	9.8
Arroyo Grande	$350	N	1 - 3 days	2.0	9.8
Artesia	$1,030	N	3 weeks	15.0	37.9
Arvin	$308	Y	OTC (with eng. & calcs) - 3 days	1.0	7.9
Atascadero	$273	N	1 - 5 days	3.0	9.1
Avalon	$792	N	2 days	2.0	19.6
Azusa	$1,197	N	1 week bldg / 21 days Utility / 0-10days FD	21.0	47.7
Bakersfield	$136	N	5 - 10 days	7.5	10.5
Baldwin Park	$432	N	0-2 days bldg/ 1- 2 wks plan + 0-10 days FD	15.0	24.6
Ballard	$293	N	1 - 2 weeks	7.5	14.0
Banning	$236	N	3 - 5 days	4.0	9.3
Barstow	$250	N	2 weeks	10.0	15.6
Beaumont	$416	N	< 1 week	3.5	12.8
Bell	$1,166	N	10 - 14 days bldg / 10 days FD	12.0	38.0
Bell Gardens	$450	N	3 - 4 weeks bldg / 10 days FD	17.5	27.5
Bellflower	$925	N	15 days	15.0	35.6
Beverly Hills	$350	N	2 - 3 days	2.5	10.3
Big Bear Lake	$415	N	2 - 3 weeks	12.5	21.7
Blythe	$54	N	1 - 3 weeks	10.0	11.2
Bradbury	$306	N	1 - 2 weeks	7.5	14.3
Brawley	$200	N	2 days to 2 weeks	6.0	10.5
Brea	$466	N	1 - 2 weeks	7.5	17.9
Buellton	$293	N	1 - 2 weeks	7.5	14.0
Buena Park	$242	Y	OTC - 10 days	4.0	9.4
Burbank	$0	Y	0 days	0.0	0.0
Calabasas	$658	Y	0 days	0.0	14.7
Calexico	$709	N	2 days	2.0	17.8
California City	$681	N	1 - 15 days	8.0	23.2
Calimesa	$655	N	1 week	5.0	19.6
Camarillo	$430	Y	OTC	0.0	9.6
Canyon Lake	$683	N	2 weeks	10.0	25.2
Carlsbad	$120	Y	0 days	0.0	2.7
Carpinteria	$245	N	1 - 2 weeks	7.5	12.9
Carson	$1,473	Y	1 day bldg + 2-4 days FD	4.0	36.8
Casmalia	$293	N	1 - 2 weeks	7.5	14.0
Cathedral City	$211	N	2 - 3 weeks	12.5	17.2
Cerritos	$1,078	Y	2 weeks bldg / 10 days FD	10.0	34.0
Chino	$665	Y	OTC - 3 to 4 weeks / 7-10 days FD	16.5	31.3
Chino Hills	$514	N	15 min. - 10 days bldg / 7-10 days FD	8.5	20.0

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Chula Vista	$45	N	0 - 7 days (7 day rank requested)	7.0	8.0
Claremont	$435	Y	0 days bldg + 0-10 days FD	10.0	19.7
Coachella	$954	N	1 Month	20.0	41.2
Colton	$683	N	4 - 6 weeks	25.0	40.2
Commerce	$675	N	1 - 3 weeks bldg / 10 days FD	10.0	25.0
Compton	$900	Y	1 - 3 weeks	10.0	30.0
Corona	$660	N	< 2 weeks	7.5	22.2
Coronado	$268	N	1 - 2 weeks	7.5	13.5
Costa Mesa	$0	N	1 - 3 weeks	10.0	10.0
Covina	$645	N	10 - 15 days	12.5	26.9
Cudahy	$717	N	10 days bldg / 10 days FD	10.0	26.0
Culver City	$0	N	3 weeks	15.0	15.0
Cuyama	$293	N	1 - 2 weeks	7.5	14.0
Cypress	$625	Y	OTC - 4 days	1.5	15.4
Dana Point	$1,020	N	1 - 2 weeks	7.5	30.2
Del Mar	$190	N	2 days	2.0	6.2
Delano	$65	Y	OTC with calcs	0.0	1.4
Desert Hot Springs	$660	N	1 - 2 weeks	7.5	22.2
Diamond Bar	$704	N	10 days bldg / 0-10 days FD	10.0	25.7
Downey	$1,164	N	few days - 4 weeks	12.0	37.9
Duarte	$965	Y	several days	3.0	24.5
El Cajon	$225	N	1 - 2 weeks	7.5	12.5
El Centro	$478	N	2 days - 2 weeks	6.0	16.6
El Monte	$1,014	Y	0 - 5 days (OTC on Mon. or Thur.)	1.0	23.6
El Segundo	$515	N	4 - 5 weeks bldg / 3 weeks FD	22.5	34.0
Encinitas	$388	N	1 week bldg / OTC planning / 5-10 days FD	10.0	18.7
Escondido	$102	N	15 - 20 days	17.5	19.8
Fillmore	$155	Y	OTC	0.0	3.5
Fontana	$0	N	few days - 3 weeks	9.0	9.0
Fountain Valley	$663	N	2 weeks	10.0	24.8
Fullerton	$791	N	2 weeks	10.0	27.6
Garden Grove	$160	N	1 - 2 weeks bldg / 10 days FD	10.0	13.6
Gardena	$692	Y	0 days bldg + 2-4 days FD	4.0	19.4
Glendale	$0	Y	0 days bldg + 3 weeks Glendale DWP	15.0	15.0
Glendora	$805	N	1 week bldg	5.0	22.9
Goleta	$174	N	2 - 4 weeks	15.0	18.9
Grand Terrace	$452	Y	OTC - 2 days	1.0	11.1
Grover Beach	$702	Y	0 days	0.0	15.6
Guadalupe	$415	Y	1 week	5.0	14.2
Hawaiian Gardens	$1,427	N	10 days	10.0	41.8
Hawthorne	$943	N	4 - 6 weeks	25.0	46.0

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Hemet	$473	N	1 week	5.0	15.5
Hermosa Beach	$650	N	1 - 2 weeks	7.5	22.0
Hesperia	$296	N	10 days	10.0	16.6
Hidden Hills	$225	Y	0 days bldg + 2-5 days FD	5.0	10.0
Highland	$472	N	2 weeks	10.0	20.5
Hope Ranch	$293	N	1 - 2 weeks	7.5	14.0
Huntington Beach	$0	Y	OTC - 5 days	2.0	2.0
Huntington Park	$1,100	N	2 - 4 weeks bldg / 10 days FD	15.0	39.5
Imperial Beach	$95	N	2 - 3 days	2.5	4.6
Imperial County	$737	N	1 - 10 days	5.5	21.9
Indian Wells	$0	N	1 - 2 weeks	7.5	7.5
Indio	$738	N	1 week	5.0	21.4
Industry	$967	Y	0 days bldg + 0-10 days FD	3.5	25.0
Inglewood	$1,066	Y	OTC - few days bldg / 2-4 days FD	3.0	26.7
Irvine	$210	N	1day - 1 week	3.0	7.7
Irwindale	$1,156	Y	2 hours bldg	0.0	25.7
Isla Vista	$293	N	1 -2 weeks	7.5	14.0
Kern County	$225	Y	0 days (no FD)	1.0	6.0
Kern County wildland area	$360	N	0 days + 1 week FD	5.0	13.0
La Canada Flintridge	$356	Y	30 min.	0.0	7.9
La Habra	$410	N	1 - 2 weeks bldg / 10 days FD	10.0	19.1
La Habra Heights	$1,572	N	2 weeks	10.0	45.0
La Mesa	$156	N	5 days	5.0	8.5
La Mirada	$1,008	N	6 - 8 weeks	35.0	57.4
La Palma	$211	Y	1 week	2.0	6.7
La Puente	$131	Y	0 days bldg + 0-10 days FD	10.0	12.9
La Quinta	$337	N	1 week	5.0	12.5
La Verne	$331	Y	0 - 1 days	0.5	7.9
Laguna Beach	$0	N	1 week	5.0	5.0
Laguna Hills	$183	Y	0 days	0.0	4.1
Laguna Niguel	$700	N	1 - 2 weeks	7.5	23.1
Laguna Woods	$633	N	2 weeks	10.0	24.1
Lake Elsinore	$735	N	2 weeks	10.0	26.4
Lake Forest	$254	Y	OTC - 1 week bldg / 1 week FD	5.0	10.6
Lakewood	$800	N	3 - 4 weeks bldg / 10 days FD	17.5	35.3
Lancaster	$58	Y	0 days bldg / 5-10 days FD (1 wk FD norm)	5.0	6.3
Lawndale	$1,214	Y	2 hours - 4 days bldg / 2-4 days FD	4.0	31.0
Lemon Grove	$274	N	3 - 5 days	4.0	10.1
Loma Linda	$0	N	OTC	0.0	0.0
Lomita	$1,183	Y	0 days bldg + 2- 4 days FD	3.0	29.3
Lompoc	$763	N	3 - 5 days	4.0	21.0

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Long Beach	$599	Y	0 days	0.0	13.3
Los Alamitos	$942	N	1 - 2 weeks	7.5	28.5
Los Alamos	$293	N	1 - 2 weeks	7.5	14.0
Los Angeles	$308	Y	0 days	0.0	6.9
Los Angeles County	$1,144	Y	2 hours bldg + 0-10 days FD	10.0	35.5
Los Olivos	$293	N	1 -2 weeks	7.5	14.0
Lynwood	$350	Y	OTC bldg + 0-10 days FD	10.0	17.8
Malibu	$761	Y	0 days bldg + 2-5 days FD	5.0	22.0
Manhattan Beach	$0	N	1 week bldg / 1-2 days FD	5.0	5.0
Maywood	$798	Y	1 hour bldg + 0-10 days FD	10.0	27.8
McFarland	$524	Y	0 days	0.0	11.7
Menifee	$220	Y	0 days	0.0	4.9
Mission Viejo	$0	N	3 days	3.0	3.0
Monrovia	$520	N	3 - 4 days	3.5	15.1
Montclair	$445	N	2 - 3 weeks	12.5	22.4
Montebello	$852	N	2 weeks	10.0	29.0
Montecito	$293	N	1 - 2 weeks	7.5	14.0
Monterey Park	$395	Y	OTC - 1 week to 2 weeks	5.0	13.8
Moorpark	$628	Y	1 hour max	0.0	14.0
Moreno Valley	$155	Y	OTC	0.0	3.5
Morro Bay	$675	N	1 - 6 days	3.5	18.5
Murrieta	$257	Y	OTC	0.0	5.7
National City	$595	N	1 - 2 weeks	7.5	20.8
Needles	$973	N	3 - 5 Days	4.0	25.7
Newport Beach	$900	Y	0 days	0.0	20.0
Norco	$375	Y	OTC - 2 weeks (2 weeks normal)	8.5	16.9
Norwalk	$945	N	10 days	10.0	31.1
Oceanside	$455	Y	0 - 3 days	1.3	11.4
Ojai	$325	N	4 days	4.0	11.2
Ontario	$954	N	15 days	15.0	36.2
Orange	$717	Y	0 days	0.0	16.0
Orange County	$16	N	2 - 3 weeks	12.5	12.9
Orcutt	$293	N	1 - 2 weeks	7.5	14.0
Oxnard	$900	N	3 - 5 days	4.0	24.0
Palm Desert	$0	N	7 - 10 days	8.5	8.5
Palm Springs	$375	N	1 week	5.0	13.4
Palmdale	$330	N	3 days - 2 weeks bldg / 1-2 weeks FD	6.5	13.8
Palos Verdes Estates	$85	Y	OTC bldg + 1 - 2 weeks HOA	0.0	1.9
Paramount	$1,082	N	10 days bldg / 10 days FD	10.0	34.1
Pasadena	$198	Y	OTC bldg (includes FD) + few days DWP	3.5	7.9
Paso Robles	$653	N	15 - 20 days	17.5	32.0

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Perris	$754	N	1 - 3 days	2.0	18.8
Pico Rivera	$785	N	2 weeks bldg / 10 days FD	10.0	27.5
Pismo Beach	$1,305	N	10 days	10.0	39.1
Placentia	$983	N	2 weeks	10.0	31.9
Pomona	$510	Y	OTC (possible) to 1 day bldg.	0.5	11.9
Port Hueneme	$100	Y	OTC if simple, else 1 week	0.2	2.4
Poway	$131	Y	OTC (if plan checker in) - 1 to 2 weeks	4.0	6.9
Rancho Cucamonga	$591	N	2.5 weeks	12.5	25.7
Rancho Mirage	$194	N	1 - 2 weeks	7.5	11.8
Rancho Palos Verdes	$402	Y	1 hour	0.0	9.0
Rancho Santa Margarita	$807	Y	OTC - 5 days (OTC if complete submittal)	0.0	18.0
Redlands	$110	Y	OTC	0.0	2.4
Redondo Beach	$202	N	2 weeks	10.0	14.5
Rialto	$0	N	10 days	10.0	10.0
Ridgecrest	$702	N	1 - 2 days	1.5	17.1
Riverside	$210	N	1 - 2 weeks	7.5	12.2
Riverside County	$215	Y	OTC	0.0	4.8
Rolling Hills	$1,479	Y	0 to 2 days bldg + 2-6 wks HOA not included	1.0	33.9
Rolling Hills Estates	$1,168	Y	0 - 2 hours bldg + 2 - 4 days FD	3.0	29.0
Rosemead	$122	Y	0 days	0.0	2.7
San Bernardino County	$0	N	3 Days	3.0	3.0
San Bernardino (City)	$0	Y	OTC	0.0	0.0
San Clemente	$0	Y	0 days	0.0	0.0
San Diego	$93	N	8 - 10 days	9.0	11.1
San Diego County	$0	Y	0 days	0.0	0.0
San Dimas	$1,000	N	10 days	10.0	32.3
San Fernando	$582	N	5 - 10 days	7.5	20.5
San Gabriel	$1,479	N	7 - 10 days	8.5	41.4
San Jacinto	$530	Y	1 - 2 days	1.0	12.8
San Juan Capistrano	$350	Y	OTC - 3 days (OTC normal)	0.2	8.0
San Luis Obispo	$40	Y	0 days	0.0	0.9
San Luis Obispo County	$462	N	1 - 15 days	8.0	18.3
San Marcos	$100	Y	OTC (screened installers) - 2 days	0.2	2.4
San Marino	$891	N	2 weeks	10.0	29.8
Santa Ana	$0	N	3 weeks (bldg & FD) / 5 weeks planning	25.0	25.0
Santa Barbara	$430	Y	1 hour	0.0	9.6
Santa Barbara County	$293	N	1 - 2 weeks	7.5	14.0
Santa Clarita	$300	Y	1 day	1.0	7.7
Santa Fe Springs	$895	Y	OTC bldg + 10 days FD	10.0	29.9
Santa Maria	$706	N	1 - 2 weeks	7.5	23.2
Santa Monica	$0	N	1 week	5.0	5.0

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Santa Paula	$270	Y	1 hour with appointment	0.0	6.0
Santa Ynez	$293	N	1 - 2 weeks	7.5	14.0
Santee	$206	N	3 - 5 days	4.0	8.6
Seal Beach	$359	N	1 - 2 weeks	7.5	15.5
Shafter	$102	N	1 - 3 days	2.0	4.3
Sierra Madre	$515	N	2 - 4 weeks	15.0	26.5
Signal Hill	$419	N	10 - 15 days	12.5	21.8
Simi Valley	$327	Y	1 hour max	0.0	7.3
Solana Beach	$190	N	2 days	2.0	6.2
Solvang	$554	N	1 - 3 days	2.0	14.3
South El Monte	$814	N	8 - 10 days	9.0	27.1
South Gate	$822	Y	0 - 10 days bldg / 0-10 days FD	10.0	28.3
South Pasadena	$88	Y	0 days	0.0	1.9
Stanton	$398	Y	OTC - 1 to 2 days (OTC not likely)	1.3	10.1
Summerland	$293	N	1 - 2 weeks	7.5	14.0
Tehachapi	$53	N	1 - 3 days	2.0	3.2
Temecula	$604	N	10 - 12 days	11.0	24.5
Temple City	$625	Y	2 hours bldg + 10 days FD	10.0	23.9
Thousand Oaks	$411	Y	1 hour	0.0	9.2
Torrance	$1,009	N	3 - 5 weeks	20.0	42.5
Tustin	$695	N	3 - 4 weeks	17.5	33.0
Twentynine Palms	$290	N	< 15 days	13.5	20.0
Upland	$450	N	< 2 weeks	9.0	19.0
Vandenberg Village	$293	N	1 - 2 weeks	7.5	14.0
Ventucopa	$293	N	1 - 2 weeks	7.5	14.0
Ventura	$150	Y	OTC - 1 week (includes bldg and FD)	3.0	6.3
Ventura County	$0	Y	OTC	0.0	0.0
Vernon	$687	N	2 weeks	10.0	25.3
Victorville	$513	N	2 days	2.0	13.4
Villa Park	$225	Y	2 hours	0.0	5.0
Vista	$295	Y	0 days	0.0	6.6
Walnut	$735	N	1 - 2 weeks bldg / (no FD review normal)	7.5	23.9
Wasco	$112	Y	3 - 5 days	3.5	6.0
West Covina	$815	N	7 - 10 days	8.5	26.7
West Hollywood	$1,077	N	4 - 6 weeks bldg / 0-10 days FD	25.0	49.0
Westlake Village	$1,389	N	1 - 2 days bldg / 2-5 days FD	5.0	35.9
Westminster	$400	Y	OTC - 2 weeks	4.0	12.9
Whittier	$1,328	Y	0 days	0.0	29.6
Wildomar	$215	Y	0 days	0.0	4.8
Yorba Linda	$614	N	2 weeks	10.0	23.7
Yucaipa	$441	N	< 10 days	7.5	17.3

Municipality	Total Fee	OTC	Time-to-issuance (TTI) Claimed	TTI Days	Composite Rank
Yucca Valley	$391	N	10 days	10.0	18.7
Average	**$493**			**6.6**	**17.6**

7 Recommendations

We recommend that all cities reduce their solar permit fees to $324 or less for residential PV systems that are flush-mounted to rooftops. The cities with the most PV experience and streamlined processes take 2–4 hours to permit and inspect such systems.

We recommend the following measures for cities that currently charge over $324 and take over one day to process permits:

- **Use the flat-fee method instead of the unsuitable valuation-based method to assess permit fees**. It takes about the same amount of time to permit a small or large residential PV system, so a flat fee makes more sense.
- **A flat fee works best when PV permits do not require additional staff hours for repeated reviews and inspections**. PV permit application instructions and guidelines that are available online and at the counter will reduce the number of incomplete or inaccurate submittals. To encourage careful permit submittals and installations, limit the number of repeat plan check reviews and inspections included in the flat fee. Consider requiring an additional hourly rate for PV permits where the applicant repeatedly fails to pass plan check and inspections.
- **Bring the permitting process into compliance with the California Solar Rights Act and its express legislative intent by:**
  - Minimizing permit fees for solar energy systems.
  - Eliminating time consuming reviews that are not related to whether the proposed PV system meets applicable heath and safety requirements.
  - Eliminating prohibited discretionary reviews such as design reviews for aesthetic concerns.
- **Streamline the permit process to reduce costs and delays**. For municipalities where staff cannot always be present to process permits over-the-counter, we recommend allowing solar applicants to schedule appointments with plan checkers for this purpose.
- **Streamline the permitting process by training building department staffs to perform standard fire department plan checks on standard residential PV systems**. Train building staffs to require additional plan checks by the fire department only for circumstances that present an unusual design or challenge.
- **Some reviews that municipalities currently require for PV permits do little or nothing to validate the safety and efficient operation of a proposed PV system** (e.g. reviews of standard systems in standard applications by the fire department, planning department, public works department, etc). Likewise, many building department requirements are extraneous to standard PV installations (e.g. wind-loading calculations, load-bearing calculations and aesthetic considerations). For flush-mounted residential systems of 15kW or less, we recommend a permit issuance process that is over-the-counter, particularly for PV systems

that meet the following criteria:

- The weight of the solar panels and mounting hardware is less than five pounds per square foot.
- The weight of the solar array at each attachment point is under 45 pounds
- The solar panels are no more than 18 inches off the surface of the roof
- The residence was built after 1950 with adequate rafters or trusses.

  Or

  The residence was built to meet modern building codes designed to hold the extra weight of a few pounds per square foot (similar to the weight of an extra layer of composite asphalt roofing).

***Note**:* Half- to one-day solar workshops for relevant staff can make a critical difference in permit processing expenses. Various organizations sponsor these workshops, including solar contractors/manufacturers, building departments, and the International Association of Electrical Inspectors (IAEI) (see Section 9.3 for more information).

- **Do not delay permit issuance** for **municipal utility approval.** Some municipalities with their own electric utility require that the utility process and approve all paperwork relating to the PV system (e.g. net metering agreements, time-of-use metering agreements, solar rebate/incentive forms) before the building department will issue the permit. This needlessly adds time to the permitting process. We recommend that, before issuing a permit, such municipalities require only that the PV installer notify the utility of the pending project and submit an interconnection agreement and net metering application. The utility can then conduct its review and approval process concurrently with the PV contractor's installation process and the building department's subsequent inspection.

We recommend the following permit processing measures for all cities regardless of their current permit fees and procedures for residential roof-mounted PV systems:

- **Standardize permit requirements.** We recommend that municipalities create a standard permit process with clear requirements such as:
  - Plan submittals that include the manufacturers' specification cut-sheets for major system components (i.e. solar modules, inverters and mounting).
  - No more than two drawings:
    - A wiring diagram of the electrical system showing system size as well as conduit types and sizes.
    - A roof drawing showing the location of the solar modules relative to the entire roof surface, and specifying the attachment points, rafter size and spacing. It should also mention the quantities and model numbers of the solar modules and inverter(s).

  Flush-mounted PV systems should not require professional engineering stamps unless:

  - The site is in an excessive wind zone: wind zone category D, with basic wind speeds of 80 miles per hour or greater, as defined by the California Building Code.

    Or

  - The site has unique structural issues that must be addressed.

An example of such standardized PV permit guidelines, which local chapters of the International Code Council in Northern California have approved, is available at:

http://www.gosolarnow.com/pdf%20files/Permit%20Standards.pdf

- **Provide application forms, permit fees and requirements on the municipality's website** to facilitate the application process for solar contractors and for customers who install their own systems.
- **Consider fast-tracking applications for solar contractors who have reliable track records** for PV installations. One process for fast-tracking an experienced contractor is to allow that contractor to submit an initial master PV plan to the building department for review. Based on that review, the contractor and building department could refine the master PV plan until it becomes an agreed-upon template for future PV plans. When that contractor applies for future PV permits, the building department's plan review could be completed quickly or even over the counter.
- **Reduce the time window for inspection appointments.** Solar contractors lose expensive man-hours waiting for inspectors to arrive. Most cities schedule inspection windows of half a day. We recommend that the appointment window be no more than two hours. When feasible, cities should offer specific appointment times, such as the first inspection of the day or the first inspection after lunch. Another option is for the city to call the solar contractor with an estimated appointment time as the appointment window time gets close. We also recommend that cities grant an appointment within 24 hours after the solar installer gives notice that the installation is ready for inspection.

8 Conclusion

The survey area's average PV permit of **$493** is too high. A similar survey of 131 municipalities in Northern California[xii] showed the average fee in that area is **$214** as of December 12, 2008. Building departments with experienced staff (i.e. trained for rooftop solar installations) should be able to recover PV system review and inspection costs with a fee of no more than **$324**.

Most municipalities in the survey area take one to two weeks to process a PV permit. Building departments with experienced staff should be able to immediately process standard PV permit applications over-the-counter.

PV permit fees and processing delays can make a critical difference to some homeowners. Much of the costs and delays involved in processing permits reflect misunderstandings about PV systems rather than the realities of installing and inspecting them. Cities can reduce costs and delays for themselves, solar contractors and PV customers by:

- Streamlining processes (e.g. eliminating unnecessary reviews or requirements)
- Charging a fixed fee that covers actual review and inspection costs for solar permits rather than basing fees on project valuation
- Training permit department staff in PV-specific issues
- Standardizing permit requirements

We ask that all cities consider the recommendations in this report to encourage an energy solution that contributes so much to the wellbeing of our communities and the global environment.

9 References

9.1 Contacts

Feel free to contact the survey team members for more information:

- Kurt Newick—Survey team leader, Email: KurtNewick@yahoo.com, Phone: 408-370-9636
- Carl Mills—Report author, Email: carlmlls@yahoo.com, Phone: 510-475-1864
- Jim Stewart—Co-chair of the Global Warming, Energy and Air Quality Committee of the Sierra Club's Angeles Chapter, Email: jim@earthdayla.org, Phone: 213-487-9340
- Tamara Winter Compeán—Survey volunteer and PV system homeowner, Email: tcompean@gmail.com, Phone: 626-836-1948

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9.2 Download or View the Report Online

You can view this report as a webpage or PDF at:

http://angeles.sierraclub.org/energy/pvfeereport.asp

9.3 More Information About…

- **PV Permit Submittal Guidelines**
  - International Code Council Tri-chapter Uniform Code Committee (Northern California chapters of the ICC for the Peninsula, East Bay and Monterey Bay chapters) has approved Residential (Single-Family) Solar PV System Utility Grid-Tie Connection permit submittal guidelines:

    http://www.gosolarnow.com/pdf%20files/Permit%20Standards.pdf
- **Workshops for reviewing and inspecting PV systems**
  - Solar America Board for Codes and Standards: Offers a calendar of classes about permitting and inspecting PV systems.

    http://www.solarabcs.org/
  - Bill Brooks, Brooks Engineering: Bill is developing a standard PV permit process (of particular importance is a wiring diagram that may become the national standard for residential PV permit submittals). As of May 2009 the web site below has a version of this wiring diagram specified as the "Code Organizer Drawing" on the web site.

    http://www.brooksolar.com/services.html
  - International Association of Electrical Inspectors, Southern California Chapter: May 20, 2009 education event: Solar Photovoltaic Systems, Article 690; Solar Photovoltaic design with emphasis on the AC side of the PV System.

    http://www.iaeisocal.org/So._Cal._Chapter.html
- **Guidelines for reviewing and inspecting PV systems:**

http://www.irecusa.org/fileadmin/user_upload/NationalOutreachPubs/InspectorGuidelines-Version2.1.pdf

- **How the National Electric Code (NEC) applies to reviewing and inspecting PV systems**
  - "PV and National Electrical Code: Suggested Practices" http://www.nmsu.edu/~tdi/Photovoltaics/Codes-Stds/PVnecSugPract.html
  - "Permitting or Inspecting a PV System?" http://www.nmsu.edu/~tdi/pdf-resources/IAEI-5to6-05.pdf
  - "Photovoltaic Power Systems: What Inspectors Should Know" http://www.nmsu.edu/~tdi/pdf-resources/IAEI-3to4-04.pdf
- A checklist for PV installations, based on the general requirements found in the 2005 National Electric Code (NEC), Article 690: http://www.solarsebastopol.com/PDFs/INSPECTOR_CHECKLIST_5-05__1.pdf
- **PV system design and installation** http://www.energy.ca.gov/reports/2001-09-04_500-01-020.PDF (California Energy Commission: A Guide to PV System Design and Installation)
- **Solar technology organizations:** http://www.norcalsolar.org (Northern California Solar Energy Association, a nonprofit solar advocacy organization)

  http://calseia.org/ (California Solar Energy Industries Association, a professional association of California solar installers)

  http://www.solartech.org/ (SolarTech, a nonprofit Corporation dedicated to removing barriers to solar power)

  http://www.solarenergy.org/ (Solar Energy International, a renewable energy training organization)

  http://www.nabcep.org (National Association of Board Certified Energy Practitioners, a certification organization of solar PV and solar Thermal energy system installers)

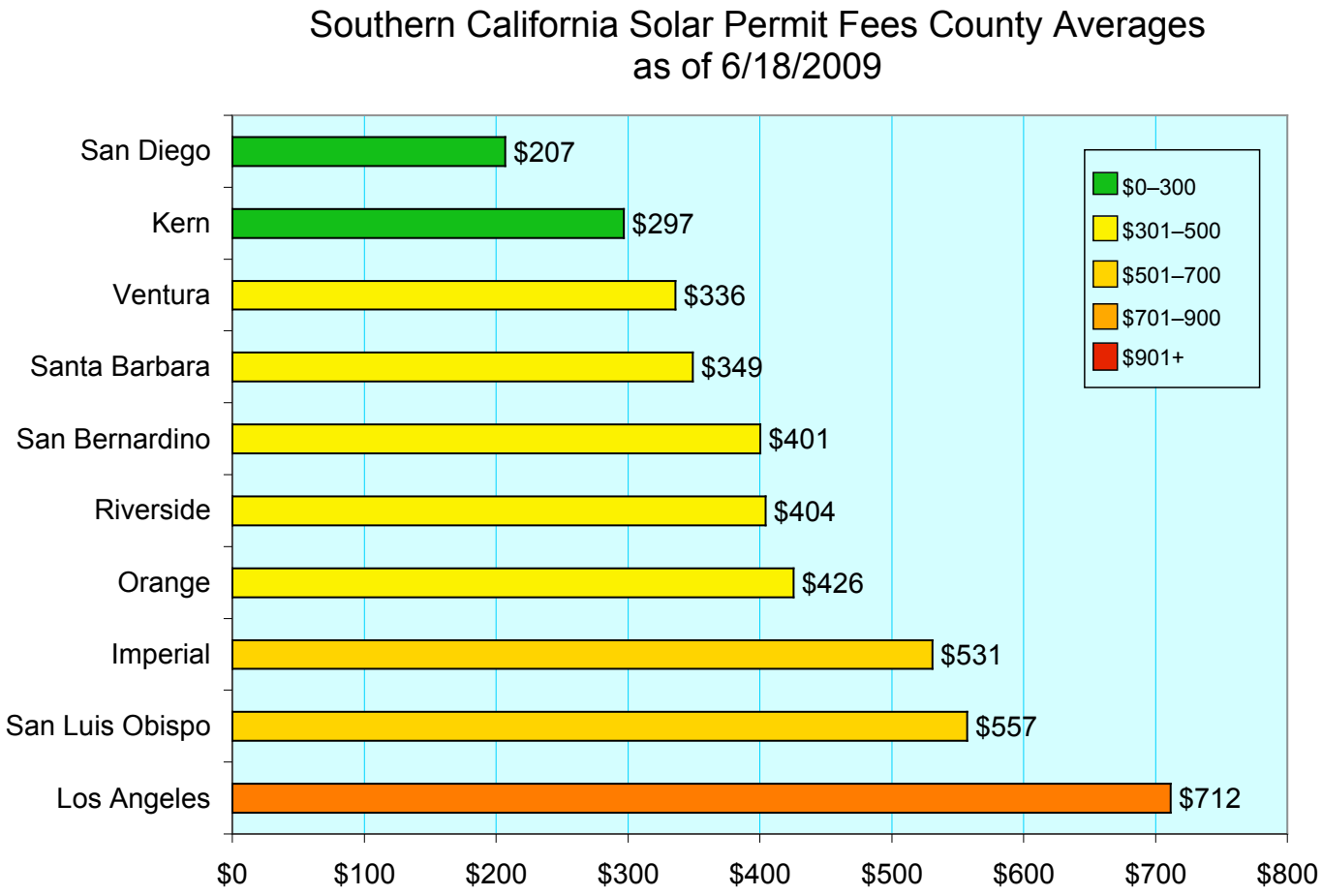
  http://solarprofessional.com (a technical publication for solar industry professionals)
- California solar access laws as of 2005 http://www.gosolarnow.com/pdf%20files/CASolarAccessLaws.pdf
- **California's Solar Initiative Program for 2007:** http://www.gosolarcalifornia.com
- **State Senator Lois Wolk's letter of intent regarding solar permit fees and design reviews**, sent to all California cities on June 7, 2006, can be downloaded at:

  http://www.norcalsolar.org/downloads/city_resources/WolkPVFeeLetter.pdf

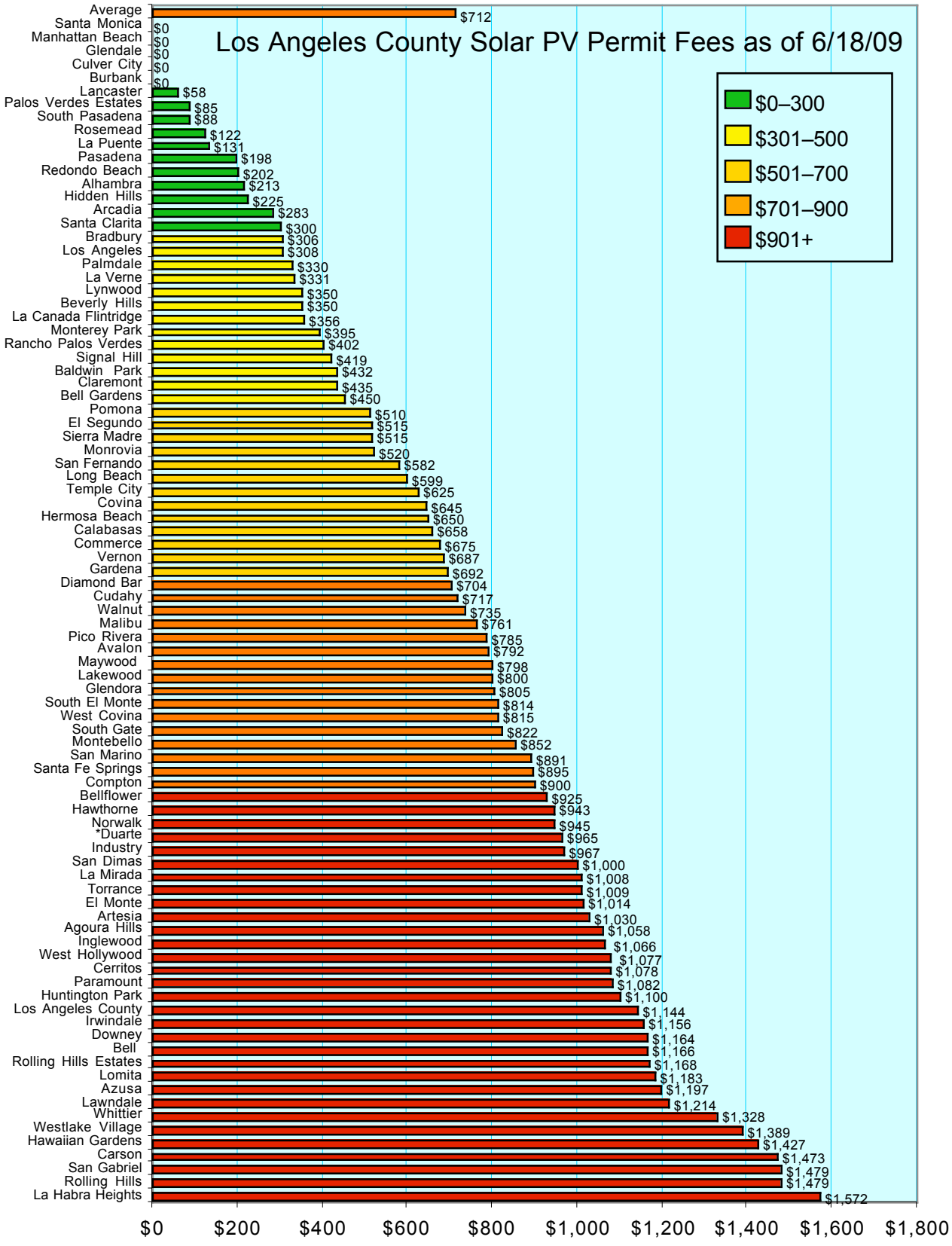
9.4 Permit Fee Results by County

The following subsections show the survey's PV permit fee results for each county.

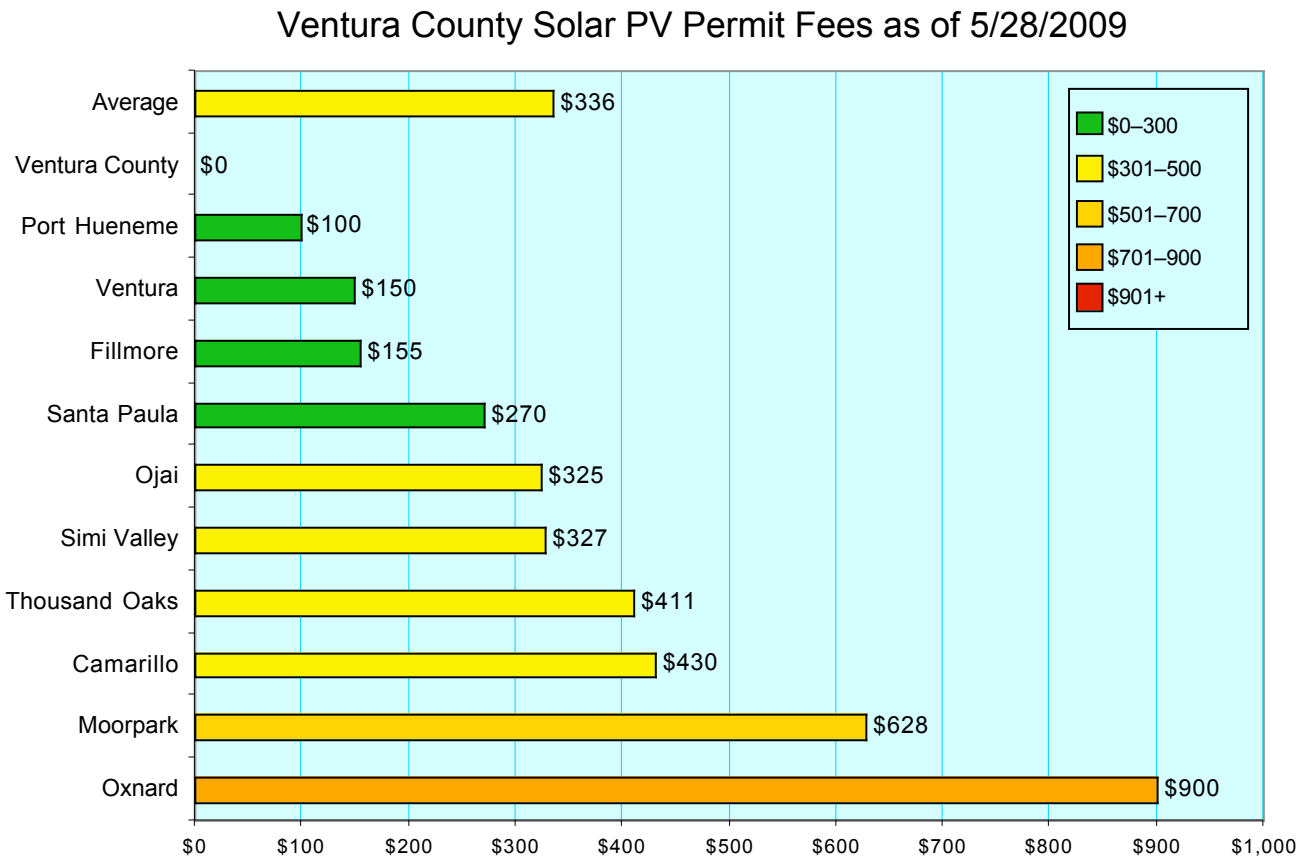
9.4.1 Average Permit Fees for All Counties



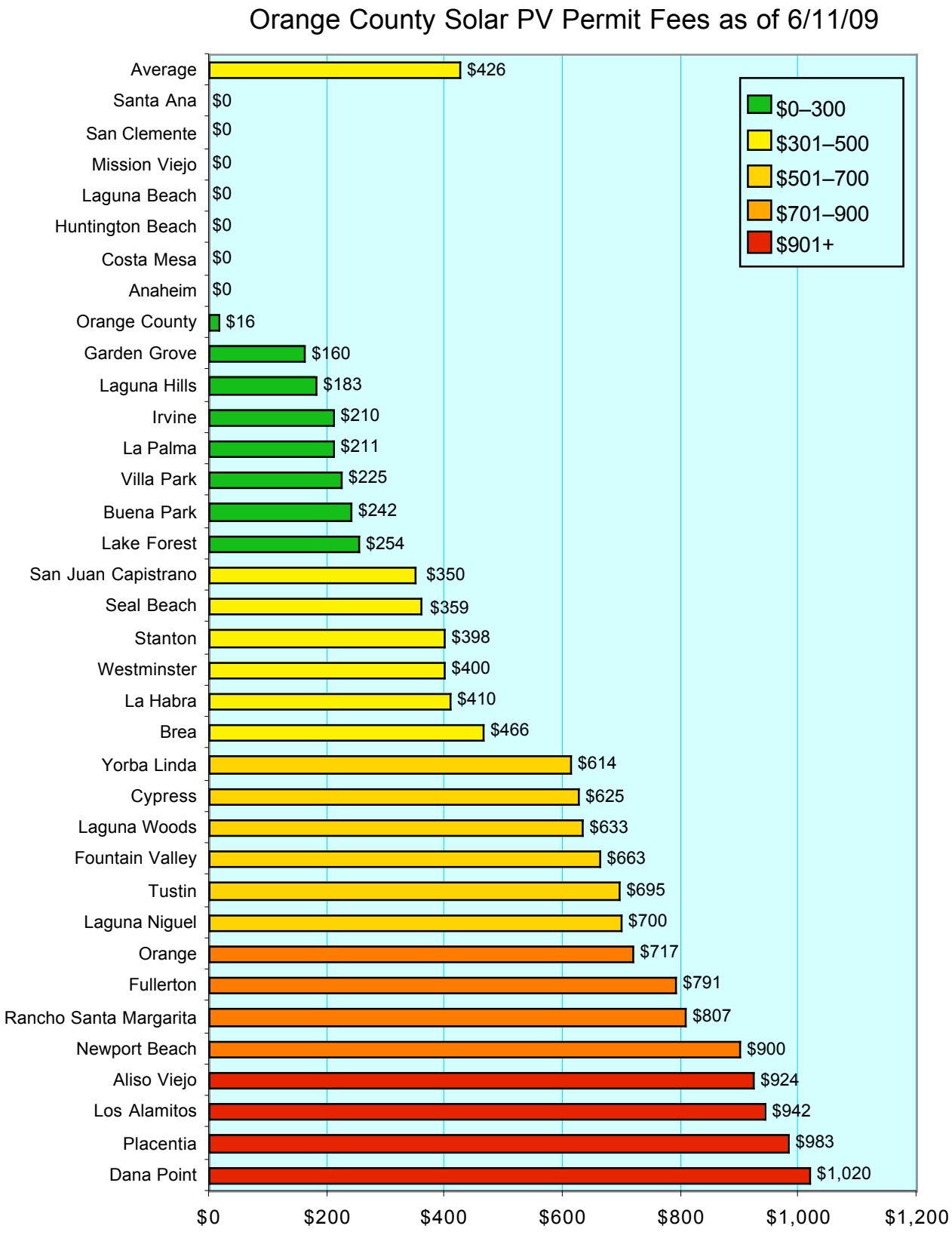
9.4.2 Los Angeles County



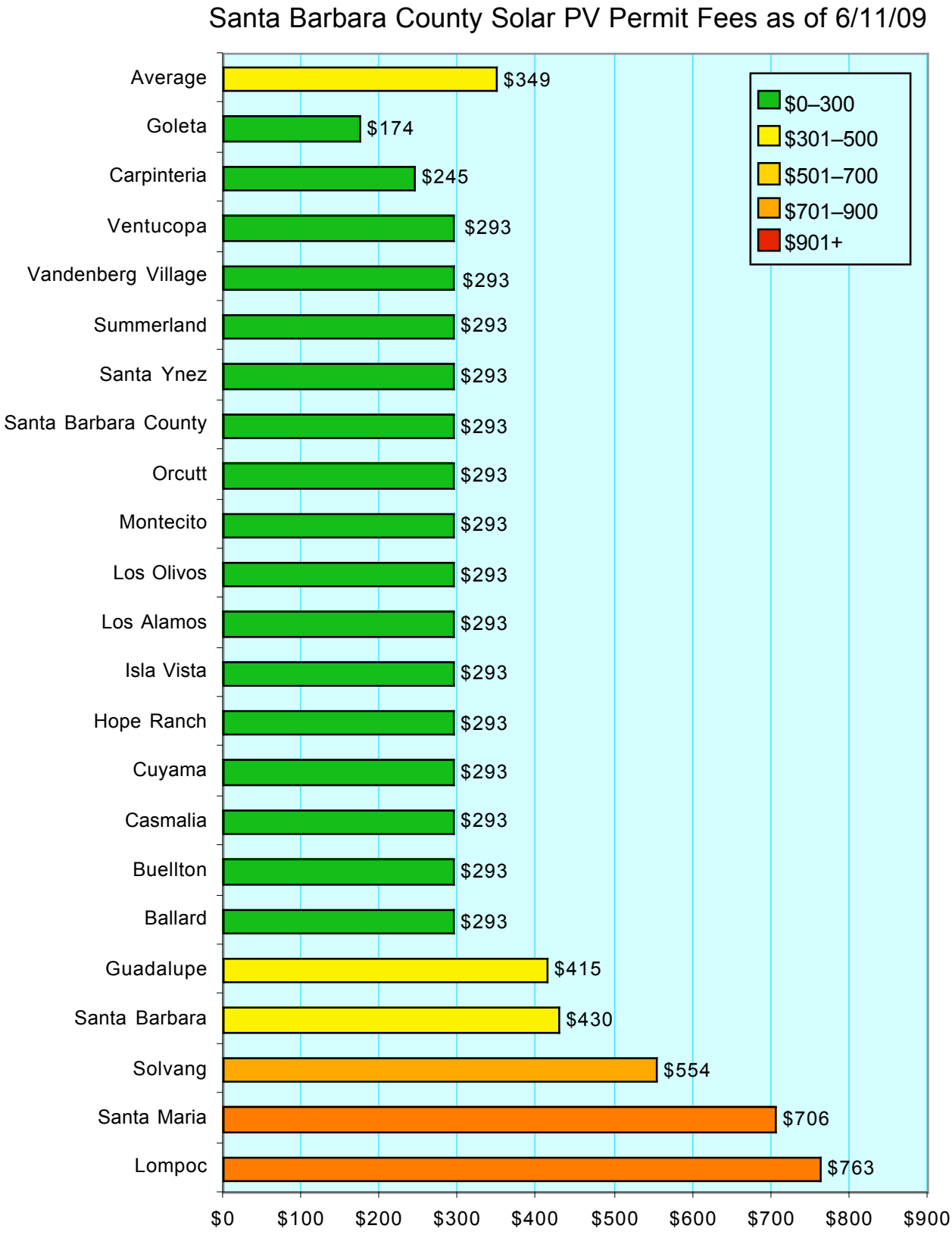
9.4.3 Ventura County



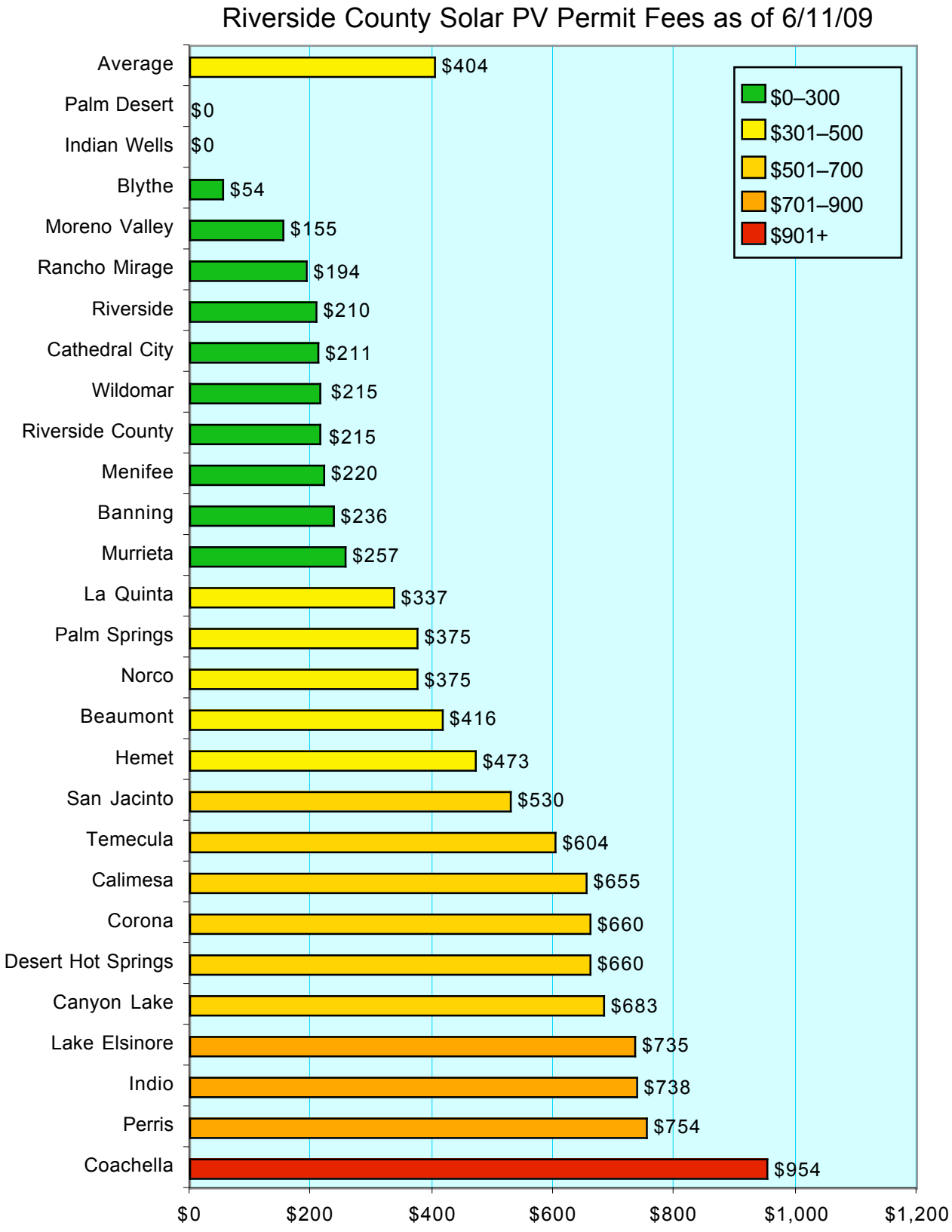
9.4.4 Orange County



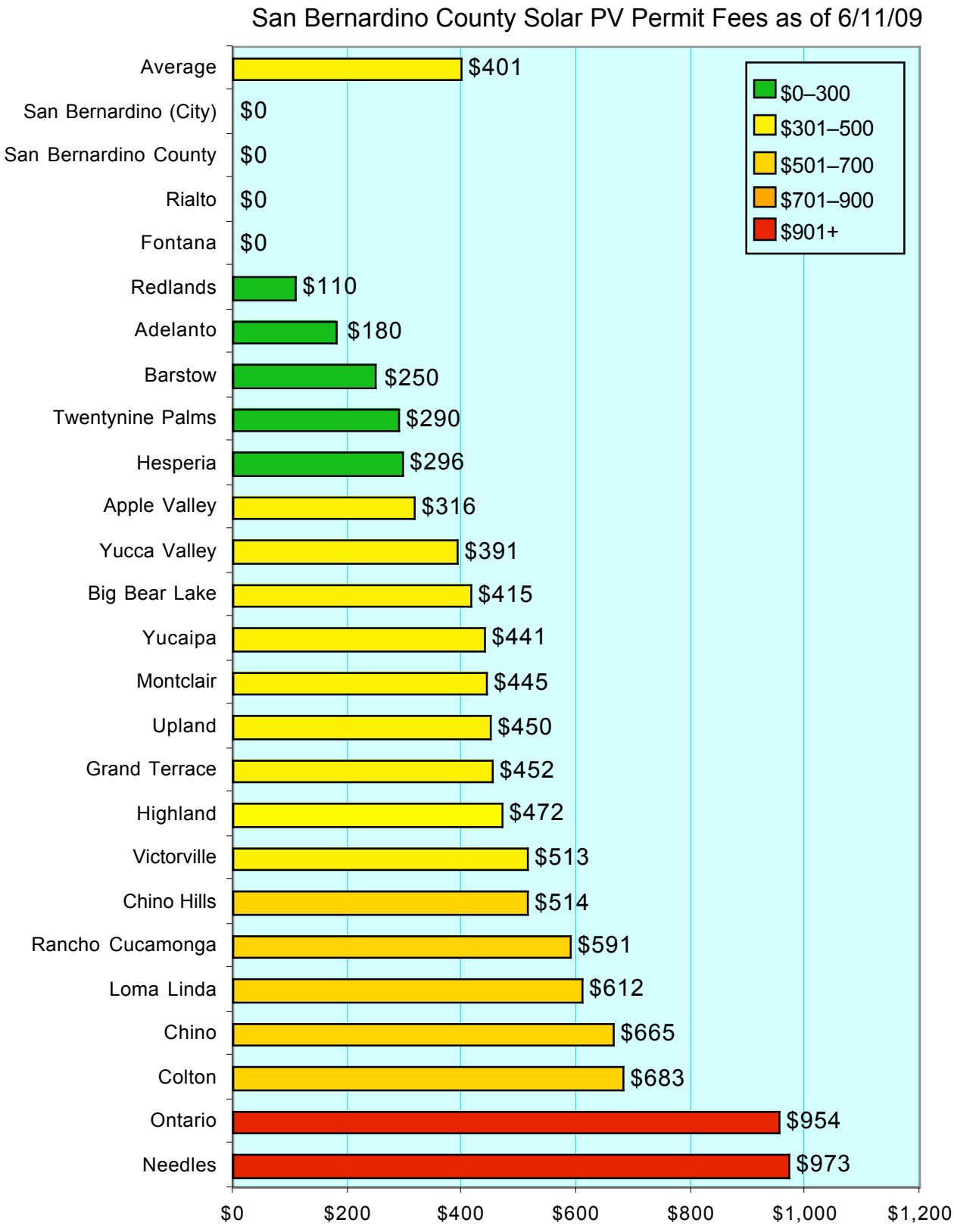
9.4.5 Santa Barbara County



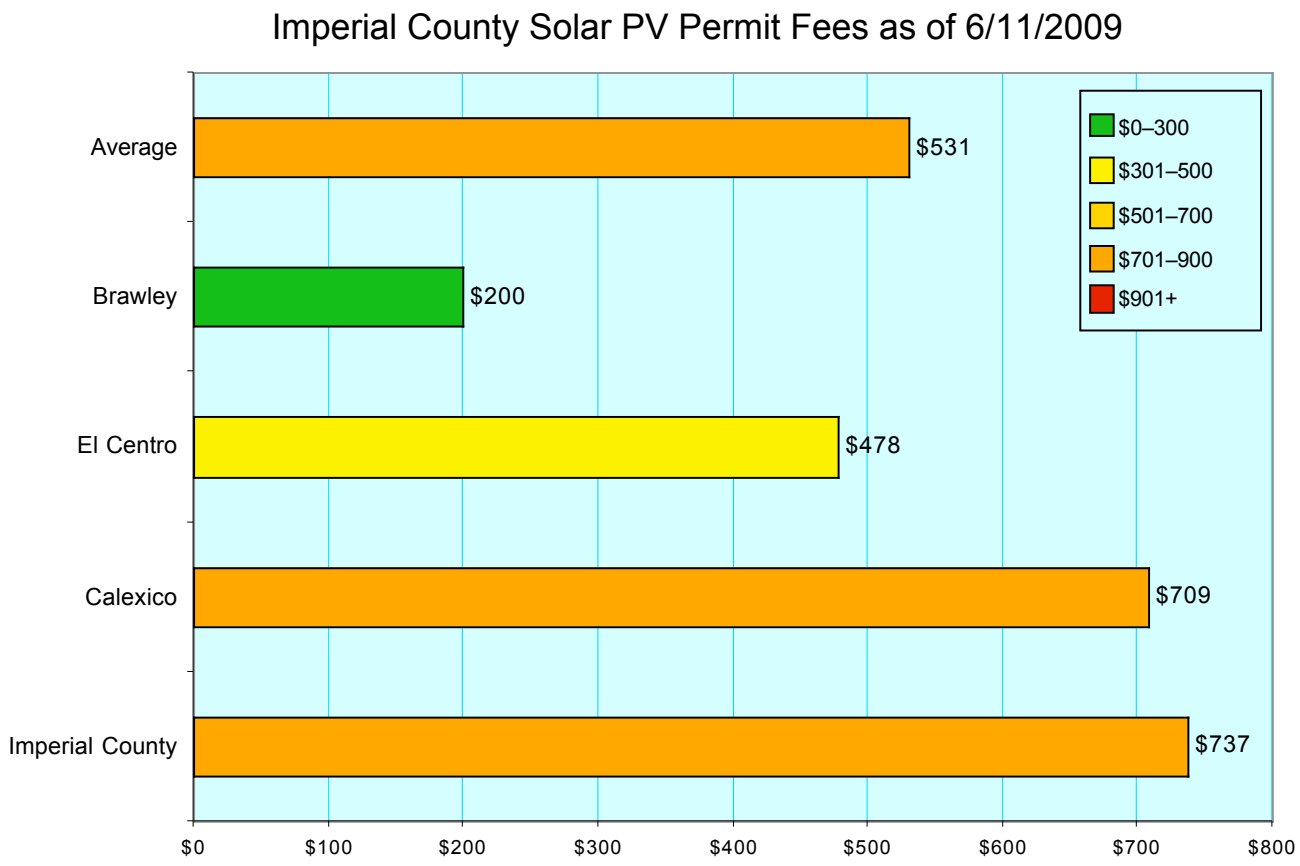
9.4.6 Riverside County



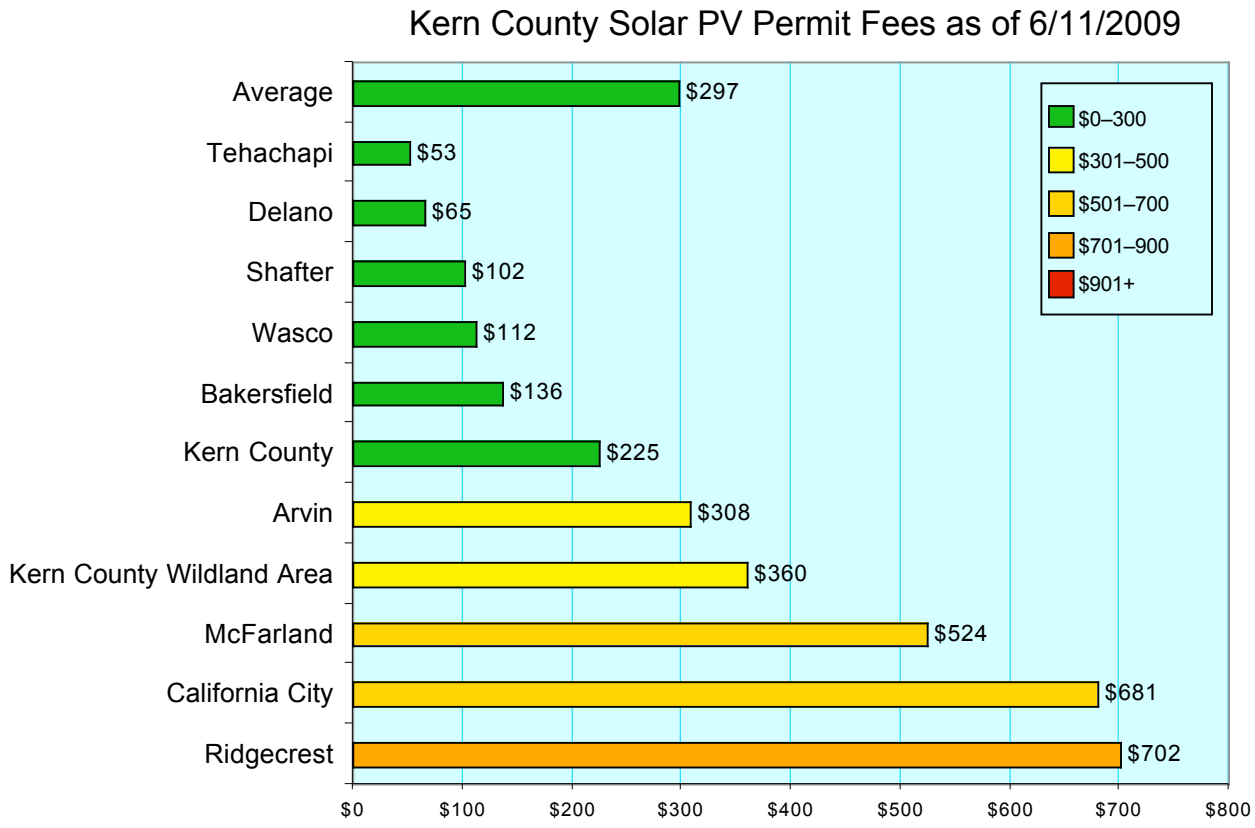
9.4.7 San Bernardino County



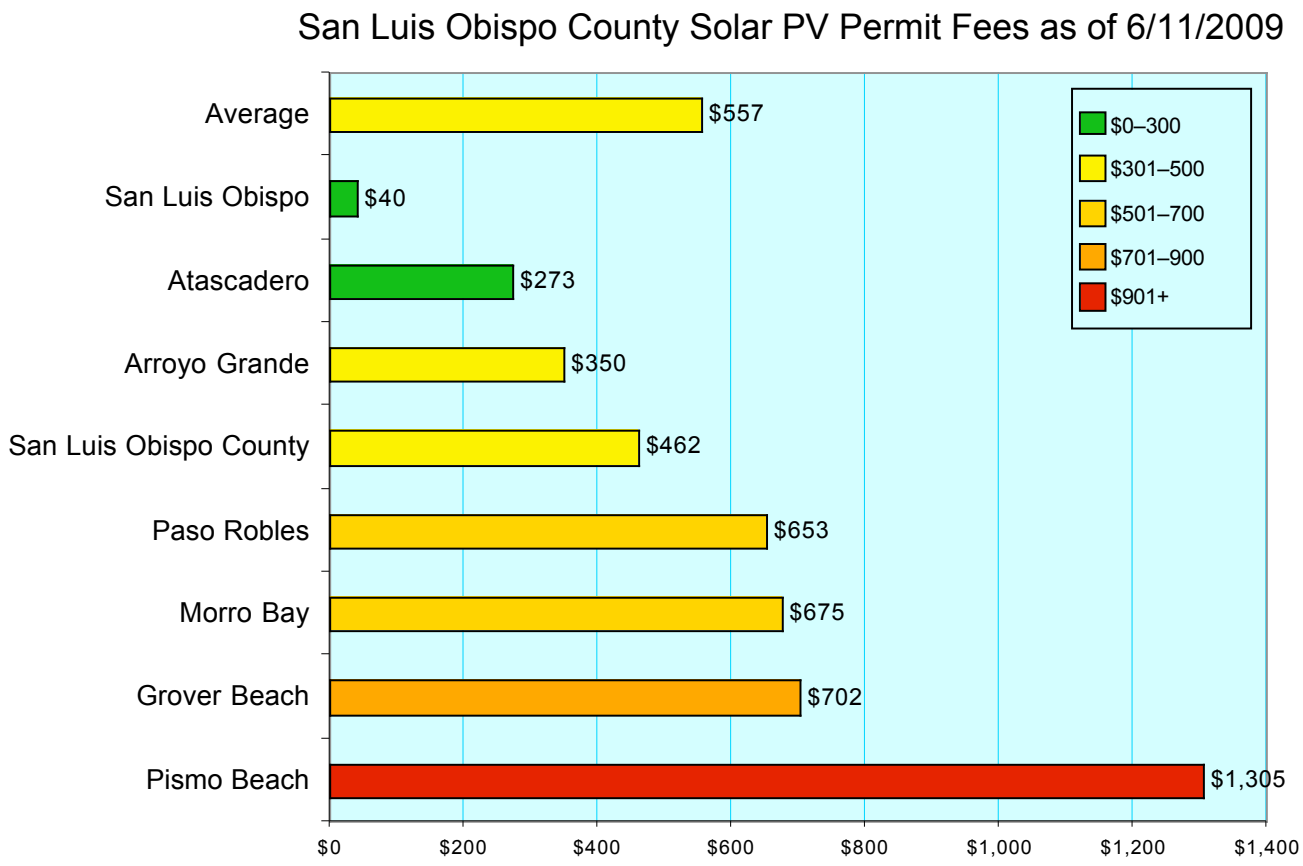
9.4.8 Imperial County



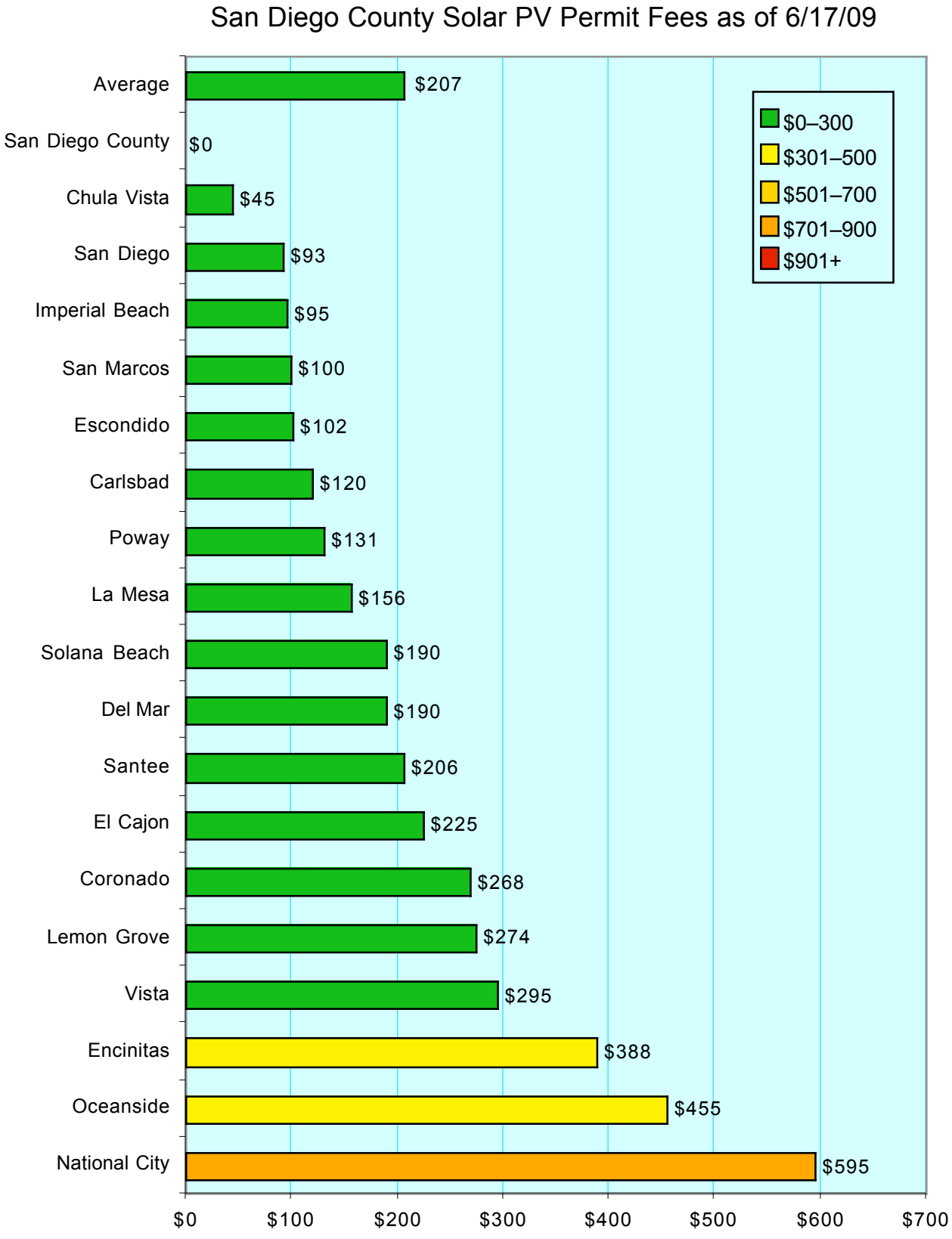
9.4.9 Kern County



9.4.10 San Luis Obispo County



9.4.11 San Diego County



9.5 Endnotes

[i] California Solar Initiative: http://www.gosolarcalifornia.org/csi/index.html

[ii] For more information on global warming, visit the website of the Intergovernmental Panel on Climate Change at http://www.ipcc.ch. Alternatively, read an overview of the science behind Vice President Al Gore's documentary, "An Inconvenient Truth," at http://www.climatecrisis.net/thescience/.

[iii] California Energy Almanac, state energy sources: http://energyalmanac.ca.gov/electricity/overview.html

[iv] USA Today referring to National Weather Service data: http://www.usatoday.com/weather/news/2004-06-21-fla-sunshine_x.htm

[v] U.S. Census Bureau: http://quickfacts.census.gov/qfd/states/06000.html

[vi] California Department of Finance: http://www.dof.ca.gov/html/DEMOGRAP/ReportsPapers/Projections/P1/documents/P-1_Tables.xls

[vii] Senate Bill 107 (passed in 2006): http://74.125.95.132/search?q=cache:LOJiFoD336EJ:www.energy.ca.gov/portfolio/documents/sb_107_bill_20060926_chaptered.pdf+California+SB+107&cd=3&hl=en&ct=clnk&gl=us

[viii] California's Million Solar Roofs Initiative (passed in 2006): http://www.gosolarcalifornia.org/csi/index.html

[ix] California Revenue and Taxation code, section 73: http://law.onecle.com/california/taxation/73.html

[x] AB 920: http://www.leginfo.ca.gov/cgi-bin/postquery?bill_number=ab_920&sess=CUR&house=A&author=huffman

[xi] California Solar Rights Act: http://74.125.95.132/search?q=cache:qDkAtN2I7XkJ:www.sandiego.edu/EPIC/publications/documents/070123_RightsActPaperFINAL.pdf+California+Solar+Rights+Act&cd=1&hl=en&ct=clnk&gl=us

[xii] Solar Electric Permit Fees in Northern California, a Comparative Study: http://lomaprieta.sierraclub.org/global_warming/pv_permit_study.htm