

# Small Wind Permitting Challenges

Findings from a Survey of Small Wind Installers

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# Summary

The California Wind Energy Collaborative (CWEC) conducted a survey of installers of small wind energy conversion systems in California. The goal was to document the challenges faced by many of the installers as they attempted to acquire permits from local jurisdictions for small wind installations. The work was based on recommendations from participants in a small wind workshop. The Collaborative contacted over 25 installers within California and asked them to participate in the study. Nine installers returned surveys. The findings from the returned surveys are presented here.

## 1.0 Introduction and Background

The State of California has long been a proponent of renewable energy and has encouraged its citizens to consider how their actions impact the environment. However, support for renewable energy from the state and the general public does not always translate into ease of implementation. Both solar and small wind systems have encountered their own set of permitting problems when entering the California market.

The State has acted several times to promote solar installations and to ease the permitting process. Amendments to the Solar Rights Act in 2004 (Anders et al., 2007) set out to streamline the permitting process. The intent was to encourage local agencies to remove obstacles and to minimize costs for solar installation permits. It required local governments to use a non-discretionary permitting process for solar energy systems.

Permitting has long been an issue with small wind installations in California. In 2001, the State took action to address the permitting issue by enacting Assembly Bill 1207 (Asmus et al., 2003). The bill created incentives for local jurisdictions to adopt workable small wind ordinances. Prior to AB 1207, most local jurisdictions had no ordinances covering small wind systems. The bill authorized jurisdictions to adopt an ordinance that included conditions specified by the State, prohibited conditions from being more restrictive than specified in the state law, and required jurisdictions that did not adopt their own ordinance to approve systems “by right” if the application met the specified conditions. AB 1207 sunsetted on January 1, 2006. Since then, counties have had to adopt their own permitting regulations. Some counties have implemented ordinances similar to AB 1207, some have adopted regulations that are more restrictive and more expensive, while others no longer have an ordinance for small wind systems.

On October 29, 2008, the California Wind Energy Collaborative (CWEC) hosted a Small Wind Workshop (CWEC, 2008) designed to identify the hurdles currently facing small wind systems and to discuss appropriate actions that can be taken to overcome them. A diverse set of parties participated, including industry professionals, established and emerging wind turbine manufacturers, installers, county representatives, utilities, environmental consultants, policy advisers, and other people engaged in small wind activities. One of the main topics of discussion was permitting.

Since the workshop, CWEC has interacted with state policy makers to determine appropriate steps necessary to overcome permitting barriers. The first step is to gather information in order to document the problems commonly encountered during the permitting process. To do this, the Collaborative contacted over 25 small wind installers in California and asked them to complete a questionnaire about their permitting experience. The findings from the returned surveys are presented in this report.

## **2.0 Methods**

- The author compiled a list of about 40 possible small wind installers across California. Through phone calls and internet searching this list was narrowed to 25. The remaining companies were no longer installing wind turbines, had very limited experience, or were not interested in participating in the survey.
- The survey was conducted from December 18, 2008 to February 9, 2009. Twenty-five small wind installers were contacted during this time via telephone and followed by an email containing the survey. The questions asked in the survey are listed in the Appendix.
- Nine surveys were returned. The general findings are presented in this report. Specific answers to the survey questions are not displayed in this report.

## **3.0 Findings**

The general findings from the nine companies can be seen in Table 1. For privacy concerns, the company names and contacts are not disclosed in this report. The majority of the companies install both solar and wind systems. Of those who returned surveys, three companies focused all of their efforts on wind turbine installations. Years of experience of the companies ranges from zero to 26 years. The number of installed turbines in 2008 ranges from zero to 25. The companies represent 24 counties and 22 turbine manufacturers.

**Table 1: General findings from returned surveys**

Company	A	B	C	D	E
Install solar?	No	Yes	Yes	Yes	Yes
Percent of time dedicated to wind	100%	10%	10%	20%	60%
Years installing wind turbines	3	6	26	0	12
# turbines installed in 2008	25	2	5	0	8
Turbine manufacturers represented	Southwest, Endurance, Mariah, AeroVironment, Wind Turbine Industries, Wind Energy Solutions	Southwest, Redriven	Southwest, Bergey, Enertech	Bergey, Southwest, AeroVironment	Bergey, Fortis, Southwest, Jacobs, Shenzhen
Counties represented	San Diego, San Bernardino, Kern, Santa Barbara, Ventura, Riverside, LA, San Luis Obispo, Imperial	Tehama	San Diego, San Bernardino, Kern, Santa Barbara, Ventura, Riverside, LA, Monterey, Sonoma	Orange	Shasta, Plumas, Glenn, Tehama, Butte, Solano, Yolo, Colusa
How satisfied with local permitting process?	very discouraged	very satisfied	very discouraged	somewhat discouraged	somewhat discouraged
Existing hurdles in the permitting process	high fees, viewshed concerns, time to process, inconsistent regulations, too restrictive codes, large application	high fees, time to process, inconsistent regulations, <i>property taxes</i>	high fees, viewshed concerns, time to process, inconsistent regulations, <i>risk of losing application fee, property taxes, subjective codes</i>	na	inconsistent regulations, large application packages

  

Company	F	G	H	I	
Install solar?	No	Yes	No	Yes	
Percent of time dedicated to wind	100%	80%	100%	90%	
Years installing wind turbines	2	3	2.5	4	
# turbines installed in 2008	10	5	5	4	
Turbine manufacturers represented	Unitron	Southwest, Shasta Green Power, Redriven, Bergey	Southwest, Bergey, Proven, Entegritty, Northwind	Bergey, BHD, Nordic, Southwest, Proven, Northwind, Synergy, WEGI, BWE	
Counties represented	Shasta, Tehama	Butte, Shasta, Tehama, Yuba, Klamath	Palm Springs, San Francisco		
How satisfied with local permitting process?	somewhat discouraged	very discouraged	very discouraged	very discouraged	
Existing hurdles in the permitting process	high fees, time to process, inconsistent regulations, too restrictive codes	high fees, viewshed concerns, time to process, inconsistent regulations, too restrictive codes, large application	high fees, inconsistent regulations, too restrictive codes	viewshed concerns, time to process, inconsistent regulations, too restrictive codes	

## 4.0 Discussion

### 4.1 Discussion of Findings

- Although only nine surveys were completed and returned, phone conversations indicate that many installers share the same frustration as expressed in the surveys.
- Only one company was satisfied (listed as *very satisfied*) with the local permitting process, whereas the remaining installers were *somewhat discouraged* (3) or *very discouraged* (5).
- The returned surveys represent 24 counties spread across California, indicating a statewide problem.
- The survey listed several possible hurdles (*Listed Hurdles*) that one may encounter during the permitting process. The installer was asked to indicate which issues are of concern and to include hurdles that were not listed (*Write-in Hurdles*). The identified hurdles, including the number of marks, are shown in Table 2. Definitions of the hurdles can be found in *Section 5.0*.

**Table 2: Identified hurdles that exist in the permitting process**

Listed Hurdles	Marks	Write-in Hurdles	Marks
inconsistent regulations	8	property tax	2
high fees	6	risk of losing application fee	1
time to process	6	subjective codes	1
too restrictive codes	5		
viewshed concerns	4		
large application packets	3		

- Inconsistency in the regulations, high fees, and time to process are the biggest problems. Inconsistency can occur between counties and between different planners within the same county. In some cases, the county ordinance is not written clearly and causes subjectivity among the planners.
- Many companies focus the majority of their efforts on solar installations, largely due to the permitting difficulties with wind systems. Some companies have stopped installing wind energy conversion systems altogether. The current permitting challenges would not encourage anyone to go into this business.

## 4.2. Recommendations

Based on the returned surveys and phone conversations with many installers, CWEC has made the following recommendations.

- Dissatisfaction with the process seems to be a widespread issue; hence a statewide solution, not solutions for individual counties, is recommended.
- Inconsistency in the regulations and time to process can be partially addressed by developing a model ordinance that counties can refer to as they develop or change their ordinances. These issues and others can be fully addressed by adopting a statewide standard. Statewide standards should streamline the process solving many of the other issues and reduce some of the fees.
- To address high fees, CWEC has surveyed the permitting fees for all Californian counties and made recommendations for a fee ceiling. The results can be found in a companion paper (Larwood et al., 2009).
- Follow-ups to the cooperating installers should be conducted as a model ordinance and statewide standards are being developed to gather suggestions and to ensure specific issues are addressed.

## 5.0 Definitions

*High fees* – The permitting fees vary widely from county to county. Some county’s fees are a substantial percentage of the installed cost of the turbine. See the companion paper for more information (Larwood, 2009)

*Viewshed concerns* – Small wind installations can be delayed or rejected due to visual concerns from neighbors and community members.

*Time to process* – The time to process a permit varies between counties. Commonly, the process can take several months and, in some cases, it can take a year or more. This can be very discouraging for the installer and customer.

*Inconsistent regulations* – Regulations differ greatly between counties making it difficult for installers who serve multiple counties.

*Too restrictive codes* – County ordinances may contain regulations that are extremely restrictive and prevents the issuance of permits.

*Large application* – The application packet may be daunting and very time consuming, adding to the cost.

*Risk of losing application fee* – Some counties require a non-refundable application fee. If the permit is declined, the customer loses his fee. This creates a financial risk to the customer.

*Property taxes* – Small wind turbines can add to the property tax of the turbine owner. Solar systems are exempt from property tax increases.

*Subjective codes* – Poorly written ordinances can cause subjectivity among county planners. This creates inconsistent regulations within counties themselves.

## 6.0 References

Anders, S., Grigsby, K., and Kuduk, C.A. (2007) *California's Solar Rights Act - A Review of the Statutes and Relevant Cases*. San Diego: Energy Policy Initiatives Center at University of San Diego School of Law.

American Wind Energy Association (2008). *In the Public Interest How and Why to Permit for Small Wind Systems*. Washington, DC: American Wind Energy Association. 36 p.

Asmus, P., K. Fullerton, et al. (2003). *Permitting Small Turbines: A Handbook*. Sacramento, CA: California Energy Commission. 44 p.

California Wind Energy Collaborative (2008). *Proceedings of the Small Wind Workshop*. <http://cwec.ucdavis.edu/smallwindworkshop2008/>. Last modified unknown; accessed 17 January 2009.

Larwood, S., Johnson, S., and van Dam, C.P., (2009). *Small Wind Permitting Fees*. California Wind Energy Collaborative at University of California, Davis.

## 7.0 Appendix

### Small Wind Installer Survey

#### General Information

Name: \_\_\_\_\_

You may use my name     Keep my responses confidential

Email: \_\_\_\_\_

Company: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Years installing wind turbines: \_\_\_\_\_

# of turbines installed (2008): \_\_\_\_\_

Do you also install solar?: \_\_\_\_\_

% of time dedicated to wind compared to solar: \_\_\_\_\_

Turbines that you carry:

Counties that you have installed turbines:

\_\_\_\_\_

\_\_\_\_\_

## Permitting Questions

1. How satisfied are you with the local permitting process for small wind turbines? *Circle One.* Please explain.  
*very satisfied                      somewhat satisfied                      neutral                      somewhat discouraged                      very discouraged*
  
2. What hurdles exist in the permitting process? *Circle all that apply.* Please explain, add additional hurdles.  
*high fees / viewshed concerns / time to process / inconsistent regulations / too restrictive codes / large application packages*
  
3. Please describe your *best* and *worst* permitting experiences.
  
4. Are there large discrepancies in fees and regulations between counties? Please provide an example.
  
5. Does it appear that counties are proactively trying to encourage small wind? Do you believe any counties are trying to discourage the installation of small wind? Please explain both, with examples.
  
6. Do you have any recommendations that could improve the system?
  
7. Amendments to the Solar Rights Act in 2004 set out to streamline the permitting requirements for solar systems. The intent of this legislation was to encourage local agencies to remove obstacles and minimize costs to permit solar installations.
  
8. Have the amendments to the Solar Rights Act in 2004 made it easier to permit solar installations? If so, in what ways? Could you provide any details or numbers that quantify the differences?
  
9. Do you feel a similar approach to the Solar Rights Act should be taken to encourage small wind installations? Please explain and make additional suggestions.
  
10. Please provide any additional comments.