Land Use Services Department

Residential Accessory Wind Energy Systems

Development Code Amendment

Mark Wardlaw, Director Land Use Services Department May 20, 2025



Project Description

The Residential Accessory Wind Energy Systems amendment (Project):

- Amends to Development Code Subsection 84.26.030(a).
- Increases the maximum allowable kilowattage (kW) for residential accessory wind energy systems from 10 kW to 25 kW.
- Has no other changes to the development standards, permit process.
- Applies to residential accessory wind energy systems throughout all regions of San Bernardino County.



Proposed Change

Table 84-14a Maximum Number of Accessory Wind Energy Systems						
Maximum number of kW	Residential	25 kW				
	Non-residential	50 kW or verified actual energy use				
Maximum number of turbines in the system	Building-mounted turbines	Based on the maximum number of kW				
	Tower-mounted turbines	Based on the maximum number of kW. Only 1 turbine shall be attached to each tower.				
	Combined building- mounted and tower turbines	Based on the maximum number of kW. Only 1 turbine shall be attached to a tower.				

Current 10 kW maximum was established in 2012 for residential accessory wind energy systems.

Advances in wind energy technology haven enabled small turbine models to produce more energy than previous models.



Photo from Chris Brooks, NREL 16743



Bergey 10 (Older Model)

Rated Power: 8.9 kW at 24.5 mph

Nominal Peak

Power:

10 kW at 27 mph

Blade Diameter: 23 feet



Bergey 15 (Newer Model)

Rated Power: 15.6 kW at 24.5 mph

Nominal Peak

Power:

25 kW at 30 mph

Blade Diameter:

31.5 feet

Height Comparison

25 kW Model

Total Height:

95.75 feet



10 kW Model

Total Height:

91.5 feet

Renewable Energy and Conservation Element Table 1: Renewable Energy Generation Categories

		Utility-Oriented			
	Accessory: Site-Oriented				
Key Traits	Rooftop	Ground- Mounted Accessory	Neighborhood	Community	
Typical Use	Accessory structure in support of on- site consumption	Accessory structure in support of on- site consumption	Provides electricity primarily for adjacent use	Provides electricity primarily for local off-site use	Supplies electricity to the transmission grid
Preferred Technology	Solar PV and water heater energy systems	Solar PV and water heater energy systems	Solar PV energy systems	Solar PV energy systems	Solar PV energy systems
Types	Geothermal Wind energy systems	Geothermal Wind energy systems	Geothermal	Bioenergy Geothermal	Bioenergy
Permit Type	Building Permit	Building Permit	Minor Use Permit	Conditional Use Permit	Conditional Use Permit
Approval	Staff	Staff	Zoning Administrator	Planning Commission	Planning Commission
<u>Typical</u> Size	Varies depending on size of facility/ residential roof	Varies depending on on-site needs	Up to 5 acres in total area	Up to 60 acres in total area	More than 60 acres in total area - Limited Sites*
Typical Power Generation	Varies depending on facility/ residence size	Up to approximately 70 kW (standard layout)	Up to approximately 710 kW (standard layout)	Up to approximately 10 MW (standard layout)	More than 10 MW

Countywide Plan Consistency

RE Goal 2: The County will be home to diverse and innovative renewable energy systems that provide reliable and affordable energy to our unique Valley, Mountain, and Desert regions.

RE 2.3.1: Monitor emerging renewable energy technologies and amend County development standards as needed to accommodate suitable new technology types.

The Project is within the scope of the Program Environmental Impact Report prepared for the General Plan Update, including:

- Supplemental Environmental Impact Report for the Greenhouse Gas Reduction Plan.
- Addendum prepared for the Renewable Energy and Conservation Element.



Planning Commission

The Planning Commission conducted a public hearing on March 6, 2025, to consider the Project:

- Three public comments were received.
- The Planning Commission unanimously recommended the Board of Supervisors approve the Project with a vote of 5-0.
- The Project is consistent with the Countywide Plan Renewable Energy and Conservation Element which allows up to 70 kW for site-oriented wind energy systems.

Thank you!

