

# BUSINESS MEETING ITEM COVER SHEET

DEPARTMENT Land Use

DIVISION

TITLE Resolution 2011-51, approving Docket (Proposed Text Amendments to the Boulder County LU Code to Facilitate Solar Gardens and Commercial Solar Energy Systems)

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DOCUMENT TYPE Resolution

SUBTYPE DC-11-0001

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BUSINESS MEETING DATE 05/03/11

COMMISSIONERS' ACTION

Approved

Denied

Other

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ORIGINAL(S) RETURNED TO Vault + Abby Janusz

AGENDA ITEM NUMBER

12

COMMENTS First, send our original resolution to C&R - Recording Division



## Land Use

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**BOULDER COUNTY  
BOARD OF COUNTY COMMISSIONERS**

**May 3, 2011 – 10:30 AM  
Hearing Room, Third Floor  
Boulder County Courthouse**

STAFF: Abby Shannon Janusz, Senior Planner

**Clarification on DC-11-0001 Solar Gardens and Commercial Solar Energy Systems**

Review staff's understanding of the motion approving Docket DC-11-0001 on April 19, 2011  
*Public Testimony will not be taken – Action Requested*

**SUMMARY**

On April 19, 2011, the Board of County Commissioners approved Docket DC-11-0001 Solar Gardens and Commercial Solar Energy Systems. A motion for action was made based on the presentations by staff, testimony from several members of the public, and the Commissioners' subsequent discussion, which motion included several changes to the staff recommendation. The purpose of this Business Meeting Discussion Item is for the Board to review the final regulatory language (attached as Exhibit A) to clarify that it reflects the Board's intent.

The Board recommended relating the review process and criteria to capacity of the proposed array rather than area of site disturbance. Small systems are divided into two categories: arrays smaller than 100 kW will be processed through Site Plan Review; those larger than 100 kW but less than 500 kW will be processed through Limited Impact Special Review. Medium sized systems, those that are larger than 500 kW but smaller than 2 MW will be reviewed through the Special Use Review process. The Board approved adding a new category called "Large" that will allow systems larger than 2 MW but smaller than 50 MW. Large systems will be allowed in the more intense zone districts through Special Use Review and may be allowed in the Forestry or Agricultural zones but only if the land is severely environmentally damaged. Major Facility of a Public Utility (50 MW or larger) was not significantly changed from staff's recommendation.

**Definition**

In the staff recommendation for the April 19, 2011 hearing, staff proposed the following definition for all use classifications: "A system composed of a solar energy collector which may include an energy storage facility, and components for the distribution of transformed energy, and which may be used for one or more users."

Staff recommends the Board clarify that its intent is to allow solar energy to be generated on one parcel and used on the same parcel as well as off-site by others. Thus, although not explicitly stated in the staff recommendation for the April 19<sup>th</sup> hearing, the intent is for this definition to include

components for distribution as well as transmission. As a result, staff recommends the Board adopt the following modified definition:

*"A system composed of a solar energy collector which may include an energy storage facility, and on-site components for the transmission and distribution of transformed energy, and which may be used for one or more users."*

Staff notes that if new transmission lines are necessary and are located on a different parcel or parcels, an additional land use approval process may be required per the use classification Major Facility of a Public Utility, depending on the characteristics of the transmission lines.

#### **Power Plants**

There was a brief discussion during the hearing regarding whether the Major Facility of a Public Utility use should require a building lot. Staff stated that this use includes a few different uses including pipelines and transmission lines in addition to power plants. It was not clear, however, if the Board intended to require Power Plants to be sited on building lots (as defined in the Land Use Code, Art. 18-121). The following language should be added to Exhibit A if that was the Board's intent:

*Power plants are required to be located on a building lot.*

#### **Marginal Agricultural Lands**

During the public hearing on April 19, 2011, staff discussed the meaning of "marginal" agricultural land, a term proposed for inclusion in the regulations by the Planning Commission, and requested direction on how staff should interpret this term in administering the regulations. During the hearing, staff suggested that the term could refer to land that is zoned Agricultural but isn't ideal for agricultural uses because of its characteristics, including, for example, rocky soils, steep slopes, or other natural features that cause the land to be unsuitable for agricultural uses. It could also mean a lack of water rights, although we do have productive dry land farming and grazing in Boulder County.

Staff recommends the Board define "marginal" agricultural lands as any agricultural lands that are not in one of the three Significant Agricultural Lands designations as defined and mapped in the Boulder County Comprehensive Plan (Lands of National, Statewide, and Local Importance). Any land zoned Agricultural but not within one of these designations would be eligible for a Medium sized array (500 kW-2 MW). Large systems and Power Plants could only be located on lands zoned Agricultural if they were severely environmentally damaged, such as former landfill sites. The following Additional Provision has been incorporated into Exhibit A:

*Medium solar energy systems cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, or Critical Wildlife Habitats.*

#### **Small Systems and Agricultural Land**

Staff seeks clarification on the Board's intent for regulating Small systems with respect to Agricultural Lands of Statewide or National Importance. During the discussion staff understood that the Board intended to include this Additional Provision on the larger of the Small systems (100-500 kW) but not on those systems less than 100 kW. The following Additional Provision has been incorporated into Exhibit A:

*If larger than 100 kW, small solar energy systems cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance and Agricultural Lands of Statewide Importance.*

**Conservation Easements**

During the meeting, the Board recommended prohibiting power plants or solar energy-generating systems on lands encumbered by a publicly-owned conservation easement. Staff added the following statement to each use classification:

*This use cannot be located on parcels encumbered by publicly held conservation easements.*

## RESOLUTION 2011-51

### A RESOLUTION APPROVING BOULDER COUNTY LAND USE DOCKET #DC-11-0001: PROPOSED TEXT AMENDMENTS TO THE BOULDER COUNTY LAND USE CODE TO FACILITATE SOLAR GARDENS AND COMMERCIAL SOLAR ENERGY SYSTEMS

**WHEREAS**, pursuant to C.R.S. Sections 30-28-112 and -116, as amended, the Board of County Commissioners of Boulder County ("the Board") is authorized to amend the text of County's Zoning Regulations in accordance with the procedures set forth in those provisions and the applicable County regulations; and

**WHEREAS**, pursuant to C.R.S. Section 30-28-133, as amended, the Board is authorized to amend the text of the County's Subdivision Regulations in accordance with the procedures set forth in those provisions and the applicable County regulations; and

**WHEREAS**, pursuant to other statutory authority, the Board is empowered to adopt additional regulations which are related to the control of land use, including but not limited to Article 65.1 of Title 24 (Areas and Activities of State Interest); Articles 67 and 68 of Title 24 (Planned Unit Developments and Vested Rights, respectively); Article 20 of Title 29 (Local Land Use Enabling Act); Articles 11 and 15 of Title 30 (County Powers and Police Power, respectively); Article 1 of Title 32 (Special District Control); and Article 2 of Title 43 (County Highways), C.R.S.; and

**WHEREAS**, pursuant to the above-referenced authority, by Resolution 94-185 adopted October 18, 1994, effective October 19, 1994, the Board approved a unified Boulder County Land Use Code ("the Land Use Code" or "Code"), which the Board first amended by Resolution 95-27 effective March 9, 1995, and has amended on subsequent occasions thereafter; and

**WHEREAS**, in Docket #DC-11-0001 ("the Docket"), the Boulder County Land Use Department ("Land Use Department") proposed certain additional text amendments to the Land Use Code ("the Proposed Amendments"), to facilitate solar gardens and commercial solar energy systems, all as described in the memorandum and staff recommendation of the County Land Use Department to the Board dated April 19, 2011, with attachments, and dated May 3, 2011, with attachments (collectively "the Staff Recommendations"), which are incorporated into this Resolution by this reference; and

**WHEREAS**, on March 16, 2011, the Planning Commission held a duly-noticed public hearing on the Proposed Amendments, and, based on that hearing, recommended approval of the Proposed Amendments with some modifications, all as noted on the record thereof, and certified the Docket for action to the Board; and

**WHEREAS**, on April 19, 2011, the Board held a duly noticed public hearing on the Docket as certified to it by the Planning Commission ("the Public Hearing"), at which time the Board

considered the April 19, 2011 staff recommendation and the documents and testimony presented to the Board by the Land Use Department staff, with several members of the public being present to speak to the Docket; closed the public hearing; and after deliberation requested staff make various changes to the proposed regulatory language for Board consideration prior to enactment, all as further reflected on the official record of the Public Hearing; and

**WHEREAS**, on the morning of May 3, 2011, in a public hearing the Board reviewed the changes it requested staff make at the close of the April 19, 2011 hearing, at which time the Board considered the staff recommendation and the documents and testimony presented to the Board by the Land Use Department staff; requested staff make further clarifications to the regulatory language to clarify the Board's intent; and continued the hearing on the docket to a date and time certain later on the afternoon of May 3, 2011, all as further reflected on the official record of the morning public hearing; and

**WHEREAS**, on the afternoon of May 3, 2011, the Board in a public hearing reviewed the changes it requested staff make earlier that morning, at which time the Board considered the final proposed regulatory language and related documents and testimony presented to the Board by the Land Use Department staff, all as further reflected on the official record of the afternoon public hearing; and

**WHEREAS**, based on the Staff Recommendation and the Public Hearing, the Board finds that the Proposed Amendments, specifically in the form set forth in Exhibit A to this Resolution, below, meet the criteria for text amendments contained in Article 16 of the Land Use Code, in that the existing text is in need of amendment; the Proposed Amendments are not contrary to the intent and purpose of the Land Use Code; and the Proposed Amendments are in accordance with the Comprehensive Plan; and

**WHEREAS**, the Board thus determines that the Proposed Amendments, as approved and set forth in Exhibit A to this Resolution, below, should be and hereby are incorporated into the Land Use Code, effective on the date of adoption of this Resolution as stated below.

**NOW, THEREFORE, BE IT RESOLVED** that the Proposed Amendments, specifically in the form set forth in Exhibit A to this Resolution, below, are hereby approved for incorporation into the Land Use Code, to be effective on the date of adoption of this Resolution as stated below.

**BE IT FURTHER RESOLVED** that, pursuant to C.R.S. Section 30-28-125, the Board authorizes the Clerk to the Board to arrange for the immediate transmittal of this Resolution, with its Exhibit A, to the County Clerk and Recorder, for filing and appropriate indexing with that official, so that the Clerk and Recorder may make this Resolution, with its Exhibit A, accessible to the public. This transmittal should state recording Reference **No. 2735571**, the recording of the Boulder County Land Use Code on November 4, 2005, which this transmittal supplements and amends.

A motion to approve the Proposed Amendments in the Docket (#DC-11-0001), as set forth above, was made at the Public Hearing by Commissioner Pearlman, seconded by Commissioner Domenico, and passed by a 2-1 vote, with Commissioner Toor voting against the motion.

ADOPTED on, and to be effective as of, this 3<sup>rd</sup> day of May, 2011.

**BOARD OF COUNTY COMMISSIONERS  
OF BOULDER COUNTY:**



*Ben Pearlman*

Ben Pearlman, Chair

*Cindy Domenico*

Cindy Domenico, Vice Chair

\_\_\_\_\_  
Will Toor, Commissioner

ATTEST:

*Wita Fyde*

Clerk to the Board

**EXHIBIT A TO RESOLUTION 2011-51 (BOULDER COUNTY LAND USE CODE TEXT AMENDMENTS  
APPROVED IN DOCKET #DC-11-0001)**

**4-101 (F)(5) Forestry**

Small Wind-Powered Energy Collectors Systems, and Small Solar Energy Collectors Systems or Solar Gardens, Medium Solar Energy Systems or Solar Gardens, and Large Solar Energy Systems can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

**4-102 (F)(5) Agricultural**

Small Wind-Powered Energy Collectors Systems, and Small Solar Energy Collectors Systems or Solar Gardens, Medium Solar Energy Systems or Solar Gardens, and Large Solar Energy Systems can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

**4-103 (F)(5) Rural Residential**

Small Wind-Powered Energy Collectors Systems and Small Solar Energy Collectors Systems or Solar Gardens can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

**4-104 (F)(5) Estate Residential**

Small Wind-Powered Energy Collectors Systems and Small Solar Energy Collectors Systems or Solar Gardens can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

**4-105 (F)(5) Suburban Residential**

Small Wind-Powered Energy Collectors Systems and Small Solar Energy Collectors Systems or Solar Gardens can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

**4-106 (F)(6) Multifamily**

Small Wind-Powered Energy Collectors Systems and Small Solar Energy Collectors Systems or Solar Gardens can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

#### **4-107 (F)(4) Manufactured Home Park**

Small Wind-Powered Energy Collectors Systems and Small Solar Energy Collectors Systems or Solar Gardens can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

#### **4-108 (F)(6) Transitional**

Small Wind-Powered Energy Collectors Systems and Small Solar Energy Collectors Systems or Solar Gardens can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

#### **4-109 (F)(6) Business**

Small Wind-Powered Energy Collectors Systems and Small Solar Energy Collectors Systems or Solar Gardens can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

#### **4-110 (F)(6) Commercial**

Small Wind-Powered Energy Collectors Systems, and Small Solar Energy Collectors Systems or Solar Gardens, Medium Solar Energy Systems or Solar Gardens, and Large Solar Energy Systems can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

#### **4-111 (F)(6) Light Industrial**

Small Wind-Powered Energy Collectors Systems, and Small Solar Energy Collectors Systems or Solar Gardens, Medium Solar Energy Systems or Solar Gardens, and Large Solar Energy Systems can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

#### **4-112 (F)(6) General Industrial**

Small Wind-Powered Energy Collectors Systems, and Small Solar Energy Collectors Systems or Solar Gardens, Medium Solar Energy Systems or Solar Gardens, and Large Solar Energy Systems can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

#### **4-117 (F)(5) Mountain Institutional**

Small Wind-Powered Energy Collectors Systems and Small Solar Energy Collectors Systems or

Solar Gardens can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

*New use in 4-514:*

**Large Solar Energy System**

1. Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the transmission and distribution of transformed energy, and which may be used for one or more users.
2. Districts Permitted: By special review in GI, LI, C, A, F if the system has a rated capacity greater than 2 MW but does not meet the Land Use Code definition of Power Plant
3. Parking Requirements: To be determined through the review
4. Loading Requirements: None
5. Additional Provisions:
  - a. This use is required to be located on a building lot or an outlot platted for this purpose.
  - b. Ground-mounted solar energy collectors may not be located within utility easements or ditch easements unless authorized in writing by the easement holder.
  - c. This use shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways.
  - d. This use is permitted in the Agricultural or Forestry zone districts will be permitted only if the area used has been contaminated or damaged making it unsuitable for agricultural, forestry, or residential uses. These areas may include former landfills, brownfields, Superfund sites, and the like.
  - e. This use cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, Natural Landmarks and Areas, or Critical Wildlife Habitats.
  - f. Roof-mounted systems proposed as a principal use may be mounted on any legal structure, subject to review through the building permit process. Roof-mounted systems shall be mounted as flush as possible to the roof. In order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive).
  - g. Applications shall be reviewed with special consideration given to lands identified as Open Corridor, Roadside in the Boulder County Comprehensive Plan.

#### 4-514 (E) Major Facility of a Public Utility

1. Definition: Any electric transmission lines, power plants, or substations of electric utilities; major gas regulator stations, transmission and gathering pipelines, and storage areas of utilities providing natural gas or petroleum derivatives; and their appurtenant facilities.
2. Districts Permitted: By review under the regulation of areas and activities of state interest, or special review and location and extent review in all districts. Power plants by review under the regulation of areas and activities of state interest in GI, LI, C, A, F
3. Parking Requirements: To be determined through the review
4. Loading Requirements: None
5. Additional Provisions:
  - a. With the exception of power plants, this use is not required to be located on a building lot, nor comply with the minimum lot size requirement for the district in which it is located.
  - b. Power plants are required to be located on a building lot.
  - c. Power plants in the Agricultural or Forestry zone districts will be permitted only if the area used has been contaminated or damaged making it unsuitable for agricultural, forestry, or residential uses. These areas may include former landfills, brownfields, Superfund sites, and the like.
  - d. Power plants cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, Natural Landmarks and Areas, or Critical Wildlife Habitats.
  - e. Applications for power plants shall be reviewed with special consideration given to lands identified as Open Corridor, Roadside in the Boulder County Comprehensive Plan.

*New use in 4-514:*

#### **Medium Solar Energy System or Solar Garden**

1. Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the transmission and distribution of transformed energy, and which may be used for one or more users.
2. Districts Permitted: By special review in GI, LI, C, A, F if the rated capacity of the system will be at least 500 kW but not more than 2 MW
3. Parking Requirements: To be determined through the review
4. Loading Requirements: None
5. Additional Provisions:
  - a. This use is required to be located on a building lot or an outlot platted for this purpose.
  - b. Ground-mounted solar energy collectors may not be located within utility

- easements or ditch easements unless authorized in writing by the easement holder.
- c. This use shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways.
  - d. Medium solar energy systems in the Forestry zone district will be permitted only if the area used has been contaminated or damaged in the past making it unsuitable for agricultural, forestry, or residential uses. These areas may include former landfills, brownfields, Superfund sites, and the like.
  - e. Medium solar energy systems cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, Natural Landmarks and Areas, or Critical Wildlife Habitats.
  - f. Applications shall be reviewed with special consideration given to lands identified as Open Corridor, Roadside in the Boulder County Comprehensive Plan.
  - g. Roof-mounted systems proposed as a principal use may be mounted on any legal structure, subject to review through the building permit process. Roof-mounted systems shall be mounted as flush as possible to the roof. In order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive).

#### **Art 4-514(J) Small Solar Energy System or Solar Garden**

1. Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the transmission and distribution of transformed energy, and which may be used for one or more users on neighboring parcels.
2. Districts Permitted: By site plan review in all districts if the system will ~~disturb less than 5,000 square feet of land~~ have a rated capacity of 100 kW or less. By limited impact special review in all districts if the system will ~~disturb less than 7,500 square feet of land~~ have a rated capacity greater than 100 kW but less than 500 kW. ~~By special review in G1, L1, and C if the system will disturb 7,500 square feet or more.~~
3. Parking Requirements: ~~None~~ To be determined through the review
4. Loading Requirements: None
5. Additional Provisions:
  - a. This use is required to be located on a building lot or an outlot platted for this purpose.
  - b. If necessary for the system's effectiveness, ground-mounted solar energy collectors may be located within the minimum lot line setbacks for the subject property zoning district and within any applicable major road supplemental setback without the need for a variance, provided that the solar energy collector

is located no less than five feet from lot lines and no less than 15 feet from road rights-of-way.

- c. Ground-mounted solar energy collectors may not be located within utility easements or ditch easements unless authorized in writing by the easement holder.
- d. This use shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways.
- e. Applications shall be reviewed ~~according to the required review criteria~~ with special consideration given to lands identified as Environmental Resources and Open Corridor, Roadside in the Boulder County Comprehensive Plan.
- f. If larger than 100 kW, this use cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, Natural Landmarks and Areas, or Critical Wildlife Habitats.
- g. Roof-mounted systems proposed as a principal use may be mounted on any legal structure, subject to review through the building permit process. Roof-mounted systems shall be mounted as flush as possible to the roof. In order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive).