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Residential Green and Energy Efficient Addendum

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Overview

Seminar Description

Valuation Resources for Solar Photovoltaic Systems is a four-hour seminar that covers recognized appraisal methods for solar photovoltaic valuation of host-owned solar PV systems. It was developed for appraisers and real estate professionals who have a basic understanding of how solar photovoltaic systems work and also understand appraisal methodology.

Photovoltaic systems, also called PV systems, generate electricity from the sun. When added to a property, PV systems can power home appliances, lights, air conditioning, cell phones, and other electrical devices. There are over one and one-half million households, nearly a 2% residential adoption rate, in the United States with solar energy systems, and the number of solar systems is expected to grow exponentially in the coming years. To face this challenge, many appraisers need education and training. Requirements for appraisals for federally related lending purposes such as Fannie Mae, Freddie Mac, and FHA/HUD state that appraisers must have requisite knowledge or competency prior to accepting the assignment. Educational offerings regarding solar photovoltaic systems are available with the most comprehensive course being a two-day course, *Residential & Commercial Valuation of Solar*, offered by the Appraisal Institute. However, the two-day course does not cover host-owned solar PV systems, so this seminar bridges the gap of knowledge not covered in other educational offerings. Other Appraisal Institute educational offerings address leased systems, power purchase agreements, or community solar, which are not covered in this seminar. Participants are encouraged to take additional educational offerings to acquire sufficient background in this growing topic to produce credible appraisals. For many appraisers, developing the value of solar is a new frontier. As demand grows for appraisers who can value solar homes, forward-thinking appraisers will have a market edge.

Upon completion of the seminar, participants should be able to:

- Describe a host-owned solar photovoltaic array and the appraisal problem it presents
- Analyze utility bills to arrive at an accurate kilowatt hour (kWh) cost
- Illustrate the importance of accurate solar PV system characteristics
- List studies, education, and resources regarding solar PV valuation
- Identify the characteristics and benefits of storage batteries

Overview of Activities

This class provides opportunities for class participants to interact with each other through discussion questions, examples, and activities. Some activities include reviewing actual utility bills to identify the type of billing and the kilowatt hour cost at a given location. This hands-on activity is an important data point needed to analyze the value of a solar PV system at a given location. It is important to participate in the discussion questions, interact with other students, and complete the hands-on assignments to master the learning objectives.

Important Note. This class is focused on addressing issues that are not currently covered or not sufficiently covered in courses available to appraisers. This class is not a how-to-appraise solar PV class, but it points appraisers to resources, including courses available to hone their skills on the appraisal process of valuing solar PV, and it fills in details that are lacking in current solar courses.

Learning Enhancements

- **Preview.** To give you a taste of what is to come, each part begins with a *Preview* page, which includes a brief overview of the content, learning objectives to consider as you move through the content, and learning tips that will assist you in understanding the information presented.
- **Learning Objectives.** Each learning objective covers essential information needed to understand the concepts in the seminar. Review them before the part begins so that you have a frame of reference as you move through the material. At the end of each part, reread the objectives. Are you able to do what is stated? If not, this is the time to ask your instructor for help or review the concepts that you do not understand.
- **Discussion Questions, Examples, and Problems.** To supplement the discussions, we've included examples, discussion questions, and problems to provide everyday illustrations and hands-on activities that help you visualize and practice what you are learning.
- **Case Study.** The case study contains real-world exercises that provide practice in applying the methodologies presented in the seminar.
- **Review.** Each part ends with a review that includes the learning objectives and key terms and concepts covered.
- **Self-Assessment Quizzes.** Throughout the seminar are short quizzes and questions to help you practice what you have learned. Completing the quizzes without referring back to the material will tell you whether or not you really know the information that was covered in that part.

- **Digging Deeper.** Digging Deeper information goes beyond the scope of the seminar and is not intended to be covered in class. It is not tested on Appraisal Institute course exams; however, appraisers preparing for the comprehensive exam should be familiar with it, as well as all other material contained in the Seminar Handbook, whether or not it is presented in class.

USPAP References

All references to the Uniform Standards of Professional Appraisal Practice (USPAP) are taken from the 2020-2021 edition (Washington, D.C.: The Appraisal Foundation).

Classroom Guidelines

To make the seminar a positive experience for everyone attending, please follow these guidelines:

- 100% attendance is required. No exceptions.
- Limit use of laptops and wireless devices to classroom projects.
- Communicate with business associates during break time instead of class time.
- Put away reading materials such as newspapers and books that are not used in class.
- Silence cell phones.
- Please do not record the lectures. Recordings are not permitted.
- Refrain from ongoing conversations with those seated near you and other distracting behavior.

General Information

- **Four-function calculator.** A standard calculator is required.
- **Breaks.** There will be one 15-minute break during the seminar.
- **Attendance sheets** will be distributed during class to verify your attendance during the session.
- **Certificates of completion** can be downloaded after completion of the seminar, and attendance during the entire seminar is required.

Prerequisites

Appraisers should have a basic understanding of how solar photovoltaic systems work and understand appraisal methodology prior to taking this class. The methods discussed and taught in this class are recognized appraisal methods. This class addresses only host-owned solar PV systems and does not address all aspects of solar photovoltaic valuation. Leased systems, power purchase agreements, and community solar are not addressed in this class.