



IECA Webinar Outline

HOW TO DESIGN STORMWATER MANAGEMENT FOR GROUND MOUNTED SOLAR ARRAYS

Instructor: Steve Trinkaus, PE, Trinkaus Engineering, LLC

Date: Wednesday, November 18 2020 | 10:10 – 11:10AM Eastern Time

Large ground mounted solar arrays in New England have been responsible for adverse environmental impacts as result of stormwater from these sites. The issues involve mistakes during the design phase by professional engineers and well as during the construction phase by the contractors. The result of these errors has been significant erosion of the disturbed soil areas during the construction period which has resulted in sediment reaching downgradient wetlands and watercourses. After development, significant runoff volumes continue to cause adverse impacts on receiving streams as the streams are forced to flow at their nominal depth for extended periods of time. This condition has caused the morphology of the stream to change by under-cutting the banks and ultimately causing the top of the bank to collapse into the stream. All the eroded material is then deposited further downstream, thus clogging the gravel substrate of the streams. This presentation will include a review of stormwater design standards for several states with an evaluation of whether the standards work in the field. The presentation will discuss specific erosion and stormwater management issues which are applicable to ground mounted solar arrays.

Learning Objectives:

1. Understand that large ground mounted solar arrays on slopes greater than 5% can have significant stormwater issues,
2. Understand the types of runoff flow patterns which will not impact the environment versus those that can have significant adverse impacts on the environment
3. Understand that design standards for stormwater management are not a one sized fits all and why it is the responsibility of the design professional to create a design which does not adversely impact the environment.

Professional Development Hour Credit: 1 PDH

RCEP Delivery Method Type: Distance Learning – Synchronous (IECA Webinar)

Category of the Activity: (1) Core Technical Content

