



2240 North 375 East Road Solar Project

Borrego Solar Systems has prepared the following analysis of construction truck traffic including types of trucks, truck trips, truck delivery routes and potential truck staging areas (on-site and off-site).

Truck Deliveries

Based on a typical solar project that Borrego Solar Systems, Inc. has constructed over the past 5 years we have developed a schedule of truck deliveries for this 4.9 mW (DC) solar energy generating facility.

Quantities

- 13,608 modules
- 2,628 each racking (4 screws, 4 posts, cabling and 4 purlins)
- 32 Inverters
- One (2) transformers
- 49,294 sf of gravel road
- Switchgear
- DAS
- 6,265 lineal feet of fencing
- 6,755 lineal feet of electrical wiring

General Scope of Work:

1. Construct partial gravel access road
2. Grade and construct remainder of gravel road
3. Excavate electrical trenches/equipment pads/driving gearbox/install conduits
4. Install piles
5. Construct racking, drive shaft, torque tubes and non-driving gearboxes
6. Install solar modules/inverters
7. Install fencing
8. Install electrical equipment



Typical Truck Generation Quantities per Scope of Work

1. Construct gravel access road
 - a. Bull dozer on flat bed
 - b. Excavator on flat bed
 - c. 615 cubic yards of gravel
 - i. 41 tri-axles (15 cy/truck)
 - d. Bull dozer and excavator to remain on site.
2. Grade and construct remainder of road
 - a. Use 1.a, 1.b, and 1.c above
 - b. 615 cubic yards of gravel
 - i. 41 tri-axles (15 cy/truck)
3. Excavate electrical trenches and equipment pads/install conduits
 - a. Use 1.a and 1.b above
 - b. Back hoe
 - c. Concrete truck (2)
4. Install racking screws
 - a. 57' tractor trailers with screws/posts/cabling/purlins
 - i. 16 trucks (over 4 weeks)
 - b. One drill rig (pick up truck trailer)
5. Construct racking
 - a. No delivery trucks needed for installation.
6. Install solar modules/inverters
 - a. 57' tractor trailers with modules
 - i. (620 modules per truck)
 - ii. 2 trucks every other day
 - b. 57' tractor trailer with inverters
 - i. 1 truck
7. Install fencing
 - a. Type of truck
 - i. (4 flatbeds)
8. Install electrical equipment
 - a. Type of truck
 - i. Transformers (1 on 1 truck)
 - ii. Switchgear (1 on 1 truck)
 - iii. DAS (2 on 1 truck)
9. Miscellaneous trucks
 - a. Electrical supply trucks (box trucks)
 - b. 32 (2 per week for 4 months)

Delivery Truck Table

Truck Count

	Skidders	Tri-Axles	Logging	Low Bed	57' TT	Box Truck	Trailer	Flatbed	Misc.	Subtotal
Gravel trucks Tri-Axles (roadway surface)	-	82	-	20	-	-	-	-	-	102
Racking (2,628)	-	-	-	-	16	-	-	-	-	16
Modules (620/truck)	-	-	-	-	22	-	-	-	-	22
Fencing (6,265 ft)	-	-	-	-	-	-	-	4	-	4
Inverters (32)	-	-	-	-	2	-	-	-	-	2
Transformers (2)	-	-	-	-	-	-	-	1	-	1
Switchgear (2)	-	-	-	-	-	-	-	2	-	2
Dumpsters	-	-	-	-	-	-	-	-	2	2
Office Trailer (1)	-	-	-	-	-	-	-	-	1	1
Misc. Electrical	-	-	-	-	-	32	-	-	-	32
Misc. Site work (i.e. bulldozer, backhoe, excavator, hoe ram)	-	-	-	-	-	-	-	4	-	4
										188

The above mentioned work will occur over 3.5 months (70 days). The average number of trucks per day would be $188/70=2.68$ trucks. Some days will be closer to four(4) per day during electrical trenching and backfill.

Truck delivery routes

All truck traffic (deliveries, construction equipment) are to use Interstate Highway 57 and 72 to access project location. Trucks are to transfer to IL Route 10 until County Road 2300 E. Trucks are to use County Road 2300 E and 2200 N to access project site.

Truck staging areas

Many of our major materials suppliers travel from all over the country and their arrival times are fluid. Based on much of what is described above and limited area on site for parking multiple trucks, along with the expected delivery times, we have developed potential locations for truck staging. Access to the site will be available each day during work hours 7:30-5:00.

On-Site

We will be able to accommodate as many as five (5) tractor-trailer trucks on site for deliveries. Any trucks that will not be off-loaded will not be allowed to idle for more than five minutes. No idling sign(s) will be placed at appropriate locations. See example of sign.

Personal Vehicles

The totals above are estimates of the number of delivery truck trips needed to complete the projects. In addition to material and equipment deliveries, workers will be arriving to the site each weekday using personal vehicles. For similar projects of this scale, approximately 40 personal vehicles may be on site at a time. These vehicles will arrive each day in the morning and leave in the afternoon. The total number of vehicles on site will fluctuate depending on the phase of the project.

