Project Component	Activity	Approximate Duration (months)	Approximate Start Date
	Site Development	n/a	n/a
	Below Grade Construction	3	Nov 2013
Substation: Talega	Above Grade Construction	6	Feb 2014
138 kV	Relay Testing	1	Jun 2014
	138 kV Substation Cutover	1	July 2014
	Energization (138 kV)	1	July 2014
	Site Grading/Retaining Walls	6	Nov 2013
	Re-establish Existing Access Roads	0.5	Nov 2013
	New Access Roads	0.5	Nov 2013
Transmission	Foundation Installations	3	Dec 2012
Segment 4: 69/138kV	Underground Trench/ Conduit/Substructure	5	Jan 2014
	Steel Structure Installations	5	Feb 2014
	Cable/Conductor Pulling and Tensioning	3	April 2014
	Removal of Wood Pole Structures	5	Feb 2014
	Building Removal	2	Oct 2013
	Re-route 12 kV Circuit	1	Nov 2013
	Site Development	3	Dec 2013
Substation: San Juan	Below Grade Construction	8	June 2014
Capistrano	Above Grade Construction	13	Jan 2015
138/12 kV	Relay Testing	6	Aug 2015
	Energization (138 kV)	1	Feb 2016
	138/12 kV Substation Cutovers	1	Feb 2016
	Energize Temporary TL13835	1	Mar 2016

Project Component	Activity	Approximate Duration (months)	Approximate Start Date
	Site Development	0.5	Nov 2013
	Bore Pits	1	Dec 2013
Transmission	Foundation Installations	1	Jan 2014
Segment 1: Capistrano	Underground Trench/ Conduit/ Substructure	4	Feb 2014
138/230kV	Steel Structure Installations	6	Aug 2015
	Cable/Conductor Pulling and Tensioning	6	Sept 2015
	Removal of Structures	6	Aug 2015
	Remove RFS 138/12 kV Equipment	2	Mar 2016
	Site Development	3	May 2016
	Below Grade Construction	6	Aug 2016
Substation: San	Above Grade Construction	10	Dec 2016
Juan Capistrano 230 kV	Relay Testing	5	June 2017
	De-energize Temporary TL13835	1	Oct 2017
	Energization (230 kV)	1	Nov 2017
	230 kV Substation Cutovers	1	Nov 2017
Transmission	Site Grading/Re-establish and Extend Existing Access Roads	2	June 2014
Segment 3:	Retaining Wall Construction	1	July 2014
Talega to Rancho San Juan	Foundation Installations	6	Sept 2015
230 kV	Steel Structure Installations	6	Oct 2015
	Conductor Pulling and Tensioning	3	Mar 2016
	Removal of Wood Structures	6	Oct 2015
	Site Grading	1	Dec 2015
Transmission	Foundation Installations	2	Dec 2015
Segment 2: Rancho San Juan	Underground Trench/Conduit/Substructure	2	Feb 2016
230kV	Steel Structure Installations	0.5	Mar 2016
(South Run)	Cable/Conductor Pulling and Tensioning	2	Apr 2016
	Removal of Steel Riser Structures	0.5	May 2016

Project Component	Activity	Approximate Duration (months)	Approximate Start Date
	Site Grading/Re-establish and Extend Existing Access Roads	2	Jun 2014
Transmission Segment 1:	Retaining Wall Construction	1	July 2014
Capistrano to	Foundation Installations	3	Sept 2015
Rancho San Juan	Steel Structure Installations	6	Oct 2015
(230 kV)	Conductor Pulling and Tensioning	3	Mar 2016
	Removal of Wood & Steel Structures	6	Oct 2015
	Site Grading/ Re-establish Existing Access Roads	3	Jun 2014
	Retaining Walls	1	July 2014
Transmission Segment 4:	New Access Roads	0.5	July 2014
Talega Hub	Foundation Installations	6	Sept 2015
230kV	Steel Structure Installations	5	Nov 2015
	Conductor Pulling and Tensioning	3	Mar 2016
	Removal of Wood Pole Structures	0.5	Feb 2016
	Site Grading	1	Nov 2016
Transmission Segment 2: Rancho San Juan	Underground Trench/Conduit/Substructure	3	Jan 2017
138/230kV	Steel Structure Installations	0.5	Mar 2017
(North Runs)	Cable/Conductor Pulling and Tensioning	3	Mar 2017
	Removal of Steel Riser Structures	0.5	May 2017

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		3/4-ton or 1-ton Pick-up Truck	Transport construction personnel	6	NA	2
	General Construction	Maintenance Truck	Maintain/Refuel Equip	1	NA	1
		Air Compressor	Operate Air Tools	3	NA	4
		Water Truck	Suppress Dust	2	NA	5
		Bulldozer	Grade pads and access roads	2	1.5	6
Transmission	1	Road Grader/Blade	Construct, maintain, and upgrade roads	1	1	8
Segment 4 (Talega Hub to Talega		Scraper	Grade pads and access roads	1	2	3
Substation):	Site Grading/Re- establish and Extend	Compactor	Compact soil	1	3	4
69kV and 138kV work		Backhoe/Front Loader	Load dump trucks, stockpile, excavation	2	2	4
	Existing Access Roads/Retaining Walls	Dump/Haul Truck	Transport import/export material	3	2	8
		Excavator	Excavate and load material	2	2	6
		Drill Rig with Augers	Wall Foundation	2	1	8
		Crane (25 Ton)	Setting piers/lagging for wall	2	1	8
		Concrete Truck	Wall foundation	2	1	8

Appendix 3-D	Detailed Construction Schedule and Vehicle Use Tables

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Concrete Truck	Pour Concrete	1	3	2
	Foundation Installations	Drill Rig with Augers	Foundation Construction	2	3	6
		Backhoe	Foundation Construction	2	3	4
		Dump/Haul Truck	Haul excavated materials	2	3	4
		Dump/Haul Truck	Transport excavated materials and import backfill	2	5	3
	Underground Trench/ Conduit/ Substructure	Backhoe	Excavate trenches	1	5	4
		Large Crane (100 Ton)	Lift and set substructures	1	1	6
		Concrete Truck	Pour Concrete	1	1	4
		Compactor	Compact backfill within the trench	1	2	4
		2-ton Flatbed Truck	Deliver pole to site	1	5	2
	Steel Structure	Large Crane	Pole Erection	2	5	3
	Installations Cable/Conductor Pulling and Tensioning	Aerial Bucket Truck	Pole Erection and Conductor Installation	4	5	6
		Aerial Bucket Truck	Conductor Installation	2	3	6
		Puller and Tensioner	Pull the conductor into position and secure it at the correct tension	2	3	6
		Reel Trailer	Feed new conductor to the pulling and tensioner	2	3	6

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
			or collect old conductor			
		Splice Trailer	Store splicing supplies	1	3	6
		2-ton Flatbed Truck	Remove pole sections and hardware from site	1	4	2
		Aerial Bucket Truck	Pole deconstruction	2	4	3
	Removal of Wood Pole Structures	Chainsaw	Cut existing poles	2	4	1
		Backhoe/Frontloader	Excavate pole bases	1	4	2
		100 Ton Crane/Boom Truck	Lower pole sections and load onto trucks	1	4	2
	General Construction	3/4-ton or 1-ton Pick-up Truck	Transport construction personnel	6	NA	2
		Maintenance Truck	Maintain/Refuel Equip	1	NA	1
		Air Compressor	Operate Air Tools	2	NA	4
Transmission Segment 1:		Water Truck	Suppress Dust	1	NA	4
Capistrano Substation		Bulldozer	Grade pads and access roads	1	0.5	6
Getaways 138 kV		Compactor	Compact soil	1	2	4
	Site Development	Loader	Load dump trucks and stockpile	1	4	4
		Backhoe	Trench Excavation	1	4	4
		Dump/Haul Truck	Transport import/export	1	4	3

1	Appendix 3-D	Detailed Construction Schedul

ule and Vehicle Use Tables

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
			material			
		Excavator	Excavate and load material	1	1	6
	Bore Pits	Crane	Install/Remove shoring/boring equipment	1	1	3
		Jack-n-Bore Machine	Installs casing under RxR	1	1	3 8 3 8 3 8 3 2
		Concrete Truck	Pour Concrete	1	1	3
Transmission		Drill Rig with Augers	Foundation Construction	1	1	8
Segment 1:	Foundation Installations	Backhoe	Foundation Construction	1	1	3
Capistrano Substation Getaways		Dump/Haul Truck	Haul excavated materials and import backfill	1	1	2
138 kV		Dump/Haul Truck	Transport excavated materials and import backfill	1	3	3
		100 Ton Crane	Lift and place materials	1	1	4
	Underground Trench/ Conduit/ Substructure	Excavator	Excavate trenches	2	3	8
	Conduit/ Substructure	Backhoe/Frontloader	Move dirt/excavate dirt	2	4	8
		Concrete Truck	Pour Concrete	1	3	2
		Compactor	Compact backfill within the trench	1	1	4

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		2-ton Flatbed Truck	Deliver pole to site	1	1	4
	Steel Structure	100 Ton Large Crane	Pole Erection	1	1	4
	Installations	Bucket Truck/Manlift	Pole Erection and Conductor Installation	2	2	8
		Aerial Bucket Truck	Pole Erection and Conductor Installation	2	3	6
	Cable/Conductor Pulling and Tensioning	Puller and Tensioner	Pull the conductor into position and secure it at the correct tension	1	3	4
Transmission Segment 1: Capistrano		Reel Trailer	Feed new conductor to the pulling and tensioner or collect old conductor	1	3	4
Substation Getaways		Splice Trailer	Store splicing supplies	1	2	4
138 kV		2-ton Flatbed Truck	Remove pole sections and hardware from site	1	1	3
		Aerial Bucket Truck	Detach conductor and equipment	2	1	6
	Removal of Structures	Backhoe/Front Loader	Break foundations and load material	1	1	4
		Jackhammer	Break foundations	1	1	4
		Dump/Haul Truck	Haul excavated materials and import backfill	1	1	3
		Large Crane (100 Ton)	Lower pole sections and	1	0.25	4

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
			load onto trucks			
		3/4-ton or 1-ton Pick-up Truck	Transport construction personnel	3	NA	2
	General Construction	Maintenance Truck	Maintain/Refuel Equip	1	NA	1
		Air Compressor	Operate Air Tools	2	NA	4
		Water Truck	Suppress Dust	1	NA	4
		Bulldozer	Grade pads and access roads	1	2	6
Transmission Segment 3:		Road Grader/Blade	Construct, maintain, and upgrade roads	1	1	8
Talega to Rancho San Juan		Scraper	Grade pads and access roads	1	1	8
230 kV	Site Grading/Re-	Compactor	Compact soil	1	2	6
	establish and Extend Existing Access	Backhoe/Front Loader	Load dump trucks and stockpile	2	3	6
	Roads/Retaining Walls	Drill rig with augers	Drill piers for retaining wall	1	1	8
		Excavator	Excavate and load material	2	2	6
		Dump/Haul Truck	Transport import/export material	2	2	4
		Crane (25 Ton)	Set piers/lagging for	1	2	4

Appendix 3-D	Detailed Construction Schedule and Vehicle Use Tables

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
			retaining wall			
		Concrete Truck	Retaining wall piers	1	1	4
		Concrete Truck	Pour Concrete	2	6	2
		Drill Rig with Augers	Foundation Construction	2	6	4
	Foundation Installations	Backhoe/Front Loader	Foundation Construction	2	6	6
		Dump/Haul Truck	Haul excavated materials and import backfill	2	6	3
Transmission Segment 3:	Steel Structure Installations	2-ton Flatbed Truck	Deliver pole to site	2	6	2
Talega to		Large Crane (100 Ton)	Tower Erection	2	6	3
Rancho San Juan 230 kV		Aerial Bucket Truck	Tower Erection and Conductor Installation	4	6	4
230 K V		Aerial Bucket Truck	Conductor Installation	4	3	4
	Conductor Pulling and Tensioning	Puller and Tensioner	Pull the conductor into position and secure it at the correct tension	2	3	6
		Reel Trailer	Feed new conductor to the pulling and tensioner or collect old conductor	2	3	6

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		2-ton Flatbed Truck	Remove pole sections and hardware from site	2	6	2
Transmission Segment 3:		Aerial Bucket Truck	Detach conductor and equipment	4	6	4
Talega to Rancho San	Removal of Wood Structures	Backhoe/Front Loader	Break foundations and load material	2	6	3
Juan 230 kV	Structures	Jackhammer	Break foundations	1	6	3
250 K V		Dump/Haul Truck	Haul excavated materials and import backfill	1	6	2
		Crane (12 Ton)	Lower pole sections and load onto trucks	1	6	3
Transmission Segment 2:		3/4-ton or 1-ton Pick-up Truck	Transport construction personnel	3	NA	2
Rancho San Juan	General Construction	Maintenance Truck	Maintain/Refuel Equip	1	NA	1
230kV		Air Compressor	Operate Air Tools	2	NA	4
(South Run)		Water Truck	Suppress Dust	1	NA	4

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Bulldozer	Grade pads and access roads	1	1	4
	Site Grading/Re-	Excavator	Excavate and load material	1	1	8
	establish and Extend Existing Access Roads	Backhoe/Front Loader	Load dump trucks and stockpile	1	1	8
		Dump/Haul Truck	Transport import/export material	1	1	4
		Compactor	Compact soil	1	1	4
Transmission Segment 2:	Foundation Installations	Drill Rig with Augers	Foundation Construction	1	2	3
Rancho San		Backhoe/Front Loader	Foundation Construction	1	2	3
Juan 230kV		Dump/Haul Truck	Haul excavated materials and import backfill	1	2	2
(South Run)		Concrete Truck	Pour Concrete	1	2	2
		Excavator	Excavate trench and material	2	2	8
		Backhoe/Front Loader	Excavate trenches	2	2	8
	Underground Trench/ Conduit/ Substructure	Dump/Haul Truck	Transport excavated materials and import backfill	2	2	5
		Crane (12-ton)	Lift and place materials	1	2	2
		Concrete Truck	Pour Concrete	2	2	2

	11	2 D	
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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Compactor	Compact backfill	1	2	2
		2-ton Flatbed Truck	Deliver pole to site	1	0.5	4
	Steel Structure	Large Crane (100 Ton)	Tower Erection	1	0.5	8
	Installations	Aerial Bucket Truck	Tower Erection and Conductor Installation	2	0.5	8
		Aerial Bucket Truck	Tower Erection and Conductor Installation	4	2	6
Transmission	Cable/Conductor Pulling and Tensioning	Puller and Tensioner	Pull the conductor into position and secure it at the correct tension	2	2	4
Segment 2: Rancho San Juan		Reel Trailer	Feed new conductor to the pulling and tensioner or collect old conductor	2	2	4
230kV		Splice Trailer	Store splicing supplies	2	2	4
(South Run)		2-ton Flatbed Truck	Remove pole sections and hardware from site	1	0.5	4
		Aerial Bucket Truck	Tower Erection and Conductor Installation	2	0.5	8
	Removal of Steel Riser Structures	Backhoe/Front Loader	Break foundations and load material	1	0.5	4
		Jackhammer	Break foundations	2	0.5	6
		Dump/Haul Truck	Haul excavated materials and import backfill	1	0.5	2

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Large Crane (100 Ton)	Lower pole sections and load onto trucks	1	0.5	2
		Water Truck	Suppress dust	1	3	6
		Bulldozer	Grade pads and access roads	1	2	6
		Road Grader/Blade	Construct, maintain, and upgrade roads	1	1	8
Transmission		Scraper	Grade pads and access roads	1	1	8
Segment 1: Rancho San		Compactor	Compact soil	1	2	6
Juan to San Juan	Site Grading/Re- establish and Extend Existing Access Roads/Retaining Walls	Backhoe/Front Loader	Load dump trucks and stockpile	2	3	6
Capistrano 230 kV		Drill rig with augers	Drill piers for retaining wall	1	1	8
		Excavator	Excavate and load material	2	2	6
		Dump/Haul Truck	Transport import/export material	2	2	4
		Crane (25 Ton)	Set piers/lagging for retaining wall	1	2	4
		Concrete Truck	Retaining wall piers	1	1	4

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Concrete Truck	Pour Concrete	1	3	2
		Drill Rig with Augers	Foundation Construction	1	3	4
	Foundation Installations	Backhoe/Front Loader	Foundation Construction	1	3	6
		Dump/Haul Truck	Haul excavated materials and import backfill	1	3	3
		Concrete Truck	Pour Concrete	1	3	2
	Foundation Installations	Drill Rig with Augers	Foundation Construction	1	3	4
Transmission Segment 1:		Backhoe/Front Loader	Foundation Construction	1	3	6
Rancho San Juan to San		Dump/Haul Truck	Haul excavated materials and import backfill	1	3	3
Juan Capistrano		2-ton Flatbed Truck	Deliver pole to site	2	6	2
230 kV	Steel Structure	Large Crane	Tower Erection	2	6	3
	Installations	Aerial Bucket Truck	Tower Erection and Conductor Installation	4	6	4
		Aerial Bucket Truck	Conductor Installation	4	3	4
	Conductor Pulling and Tensioning	Puller and Tensioner	Pull the conductor into position and secure it at the correct tension	2	3	6
		Reel Trailer	Feed new conductor to the pulling and tensioner or collect old conductor	2	3	6

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		2-ton Flatbed Truck	Remove pole sections and hardware from site	1	6	2
Transmission Segment 1:		Aerial Bucket Truck	Tower Erection and Conductor Installation	2	6	4
Rancho San Juan to San Juan	Removal of Wood Structures	Backhoe/Front Loader	Break foundations and load material	1	6	3
Capistrano	Structures	Jackhammer	Break foundations	1	6	3
230 kV		Dump/Haul Truck	Haul excavated materials and import backfill	1	6	2
		Crane (12 Ton)	Lower pole sections and load onto trucks	1	6	3
Transmission Segment 4:		3/4-ton or 1-ton Pick-up Truck	Transport construction personnel	3	NA	2
Talega Hub	General Construction	Maintenance Truck	Maintain/Refuel Equip	1	NA	1
Substation	to Talega	Air Compressor	Operate Air Tools	3	NA	4
TL230kV		Water Truck	Suppress Dust	2	NA	5

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Bulldozer	Grade pads and access roads	1	0.5	6
		Road Grader/Blade	Construct, maintain, and upgrade roads	1	0.5	8
		Scraper	Grade pads and access roads	1	0.5	3
		Compactor	Compact soil	1	2	2
Transmission	Site Grading/Re- establish and Extend Existing Access Roads/Retaining Walls	Backhoe/Front Loader	Load dump trucks, stockpile, excavation	2	2	4
Segment 4: Talega Hub		Dump/Haul Truck	Transport import/export material	2	2	3
to Talega Substation		Excavator	Excavate and load material	1	2	6
TL230kV		Drill Rig with Augers	Wall Foundation	1	1	6
		Crane (25 Ton)	Setting piers/lagging for wall	1	1	6
		Concrete Truck	Wall foundation	1	2	3
		Concrete Truck	Pour Concrete	1	2	3
	Foundation Installations	Drill Rig with Augers	Foundation Construction	2	2	6
	Foundation installations	Backhoe	Foundation Construction	1	2	4
		Dump/Haul Truck	Haul excavated materials	2	2	3

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		2-ton Flatbed Truck	Deliver pole to site	1	5	2
	Steel Structure	Large Crane (100 Ton)	Pole Erection	1	5	3
	Installations	Aerial Bucket Truck	Pole Erection and Conductor Installation	2	5	6
		Aerial Bucket Truck	Conductor Installation	2	3	6
Transmission Segment 4:	Conductor Pulling and Tensioning	Puller and Tensioner	Pull the conductor into position and secure it at the correct tension	2	3	6
Talega Hub to Talega Substation		Reel Trailer	Feed new conductor to the pulling and tensioner or collect old conductor	2	3	6
TL230kV		2-ton Flatbed Truck	Remove pole sections and hardware from site	1	4	2
		Aerial Bucket Truck	Pole deconstruction	2	4	3
	Removal of Wood Pole Structures	Chainsaw	Cut existing poles	2	4	1
		Backhoe/Frontloader	Excavate pole bases	1	4	2
		Large Crane (100 Ton)	Lower pole sections and load onto trucks	1	4	2
Transmission Segment 2:		3/4-ton or 1-ton Pick-up Truck	Transport construction personnel	3	NA	2
Rancho San	General Construction	Maintenance Truck	Maintain/Refuel Equip	1	NA	1
Juan		Air Compressor	Operate Air Tools	2	NA	4

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
138/230kV (North Runs)		Water Truck	Suppress Dust	1	NA	4
		Excavator	Trench Excavate and load material	1	1	4
	Site Grading/Re- establish and Extend	Backhoe/Front Loader	Trench Excavation and load material	1	1	8
	Existing Access Roads	Dump/Haul Truck	Transport import/export material	1	1	8
		Compactor	Compact soil	1	1	4
Transmission Segment 2:	Underground Trench/ Conduit/ Substructure	Excavator	Trench Excavate and load material	2	3	8
Rancho San Juan		Backhoe/Front Loader	Trench Excavation and load material	2	3	8
138/230kV (North Runs)		Dump/Haul Truck	Transport excavated materials and import backfill	2	3	4
		Crane (12-ton)	Lift and place materials	1	3	2
		Concrete Truck	Pour Concrete	2	3	2
		Compactor	Compact backfill within the trench	1	3	2
	Steel Structure	2-ton Flatbed Truck	Deliver pole to site	1	0.5	4
	Installations	Large Crane (100 Ton)	Tower Erection	2	0.5	8

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Aerial Bucket Truck	Tower Erection and Conductor Installation	2	0.5	8
		Aerial Bucket Truck	Tower Erection and Conductor Installation	4	3	6
	Cable/Conductor Pulling and Tensioning	Puller and Tensioner	Pull the conductor into position and secure it at the correct tension	2	3	4
		Reel Trailer	Feed new conductor to the pulling and tensioner or collect old conductor	2	3	4
Transmission Segment 2:		Splice Trailer	Store splicing supplies	2	3	4
Rancho San Juan		2-ton Flatbed Truck	Remove pole sections and hardware from site	1	0.5	4
138/230kV (North Runs)		Aerial Bucket Truck	Tower Erection and Conductor Installation	2	0.5	8
	Removal of Steel Riser	Excavator	Break foundations and load material	1	0.5	4
	Structure	Jackhammer	Break foundations	2	0.5	6
		Dump/Haul Truck	Haul excavated materials and import backfill	1	0.5	2
		Large Crane (100 Ton)	Lower pole sections and load onto trucks	1	0.5	2

Appendix 3-D	Detailed Construction Schedule and Vehicle Use Tables

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		³ ⁄4-ton or 1-ton Pickup Truck	Transport and support construction personnel	3	10	1
	General Construction ¹	Air Compressor	Operate air tools	1	8	1
		Mechanic Truck	Maintain and refuel equipment	1	4	1
		Bulldozer	Grade pads and access roads	NA		
		Road Grader/Blade	Construct, maintain, and upgrade roads	NA		
Substation: Talega 138 kV		Scraper	Grade pads and access roads	NA		
130 KV		Compactor	Compact soil	NA		
	Site Development	Loader	Load dump trucks and stockpile	NA		
		Backhoe	Trench Excavation	NA		
		Water Truck	Suppress dust	NA		
		Dump/Haul Truck	Transport import/export material	NA		
		Excavator	Excavate and load material	NA		

¹ Equipment associated with General Construction would be used throughout construction of the entire Proposed Project component.

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Concrete Truck	Pour concrete	71	1	1
		Drill Rig with Augers	Drill pier foundations	1	.5	6
		Backhoe	Excavate pad foundations	1	.5	6
		Fork Lift/Skid Steer Loader	Move rebar, equipment, masonry, and other materials	NA		
	Below Grade Construction	Small Mobile Crane (12- ton)	Place material and set steel	NA		
		Trencher/Ditch Witch	Excavate trenches	1	3	6
		Loader	Move bulk material	1	2	6
		Water Truck	Suppress dust	1	3	1
		Handheld Compactor	Compact soil	2	2	4
		Dump/Haul Truck	Transport import/export material	62	1	1
		³ ⁄4-ton or 1-ton Pickup Truck	Transport and support construction personnel	3	6	1
Substation: Talega 138 kV	Above Grade	Bucket Truck/Manlift	Set steel and install equipment	1	6	6
	Construction	Large Crane	Place material and set steel	NA		
		Boom Truck	Place material and set	1	3	6

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
			steel			
		Fork Lift/Skid Steer Loader	Unload and move material	1	.3	2
		Line Truck	Assist with overhead conductor installation	2	6	1
	Above Grade Construction	Cable Dolly (trailer)	Transport reels of conductor	1		1
Substation:		Stringing Rig (trailer)	Assist with conductor installation	1		1
Talega 138 kV		100-hp Oil Processing Truck	Process transformer Oil	NA		
	Relay Testing	Relay/Telecommunication Van	Transport and support construction personnel	1	1	1
	138 kV Substation	Line Truck	Assist with overhead conductor installation	4	1	8
	Cutover & Energization (138kV)	Relay/Telecommunication Van	Test relay and telecommunications devices	1	1	1
Substation:		Dump/Haul Truck	Haul excavated materials and import backfill	62	1	1
San Juan Canistrano	Remove RFS 138/12 kV Equipment	Large Crane	Remove steel	1	.5	8
Capistrano 230kV	Equipment	Flatbed	Haul steel & RFS sub equipment	40	1	3

	Appendix 3-D	Detailed Construction Schedule and Vehicle Use Tables
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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Boom Truck	Lift equipment	2	2	6
		Crew trucks	Transport crew & tools	2	2	1
Substation: San Juan Capistrano 230kV		Bulldozer	Grade pads and access roads	2	3	8
		Road Grader/Blade	Construct, maintain, and 1 upgrade roads	1	3	8
		Scraper	Grade pads and access roads	2	3	8
		Compactor	Compact soil	1	3	8
	Site Development	Loader	Load dump trucks and stockpile	1	3	8
		Backhoe	Trench Excavation	1	3	8
		Water Truck	Suppress dust	1	3	2
		Dump/Haul Truck	Transport import/export material	761	3	1
		Excavator	Excavate and load material	1	3	6

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Concrete Truck	Pour concrete	962	6	1
		Drill Rig with Augers	Drill pier foundations	1	.5	8
		Backhoe	Excavate pad foundations	1	6	8
Substation: San Juan		Fork Lift/Skid Steer Loader	Move rebar, equipment, masonry, and other materials	1	6	4
	Below Grade Construction	Small Mobile Crane (12- ton)	Place material and set steel	1	6	2
		Trencher/Ditch Witch	Excavate trenches	1	6	8
		Loader	Move bulk material	1	4	6
Capistrano 2201 V		Water Truck	Suppress dust	1	6	2
230kV		Handheld Compactor	Compact soil	1	4	8
		Dump/Haul Truck	Transport import/export material	600	4	1
		³ / ₄ -ton or 1-ton Pickup Truck	Transport and support construction personnel	4	10	1
	Above Grade	Bucket Truck/Manlift	Set steel and install equipment	2	10	8
	Construction	Large Crane	Place material and set steel	1	3	6
		Boom Truck	Place material and set	2	9	6

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
			steel			
		Fork Lift/Skid Steer Loader	Unload and move material	2	10	6
		Line Truck	Assist with overhead /underground conductor installation	2	2	8
	Above Grade Construction	Cable Dolly (trailer)	Transport reels of conductor	1	2	2
		Stringing Rig (trailer)	Assist with conductor installation	1	1	8
Substation:		SF6 gas cart (electric)	Fill equipment with SF6	1	.75	24
Substation. San Juan Capistrano 230kV		100-hp Oil Processing Truck	Process transformer Oil	1	.5	24
	Relay Testing	Relay/Telecommunication Van	Transport and support construction personnel	2	5	1
	De-energize Temporary TL13835	Relay/Telecommunication Van	Transport and support construction personnel	1	.3	1
		Line Truck	Assist with overhead /underground conductor installation	2	.3	8
		Cable Dolly (trailer)	Transport reels of conductor	1	.5	2
		Boom Truck	Place material and set	1	.5	8

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
			steel			
Substation: San Juan	Energization 230 kV Substation &	Relay/Telecommunication Van	Transport and support construction personnel	2	1	1
Capistrano 230kV	Cutovers	Line Truck	Assist with sub const	2	1	1
		2-ton Flatbed Truck	Remove building material	1	2	8
		Bucket Truck/Manlift	Building removal	1	2	6
		Excavator	Break foundations and load material	1	2	6
Substation:	Building Removal	Jackhammer	Break foundations	2	2	6
San Juan Capistrano	Bunding Kemovai	Forklift	Load building spoil	2	2	6
138/12 kV		Dump/Haul Truck	Haul excavated materials and import backfill	32.5	2	1
		Large Crane	Knock building down	1	1	6
		Reel Trailer	Feed new conductor to the pulling and tensioner or collect old conductor	1	.5	6

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Bulldozer	Grade pads and access roads	2	4	8
		Road Grader/Blade	Construct, maintain, and upgrade roads	2	4	8
		Scraper	Grade pads and access roads	2	4	8
Substation:	Site Development	834 Rubber Tire Compactor	Compact soil	1	6	8
		Loader	Load dump trucks and stockpile	1	6	6
		Backhoe	Trench Excavation	1	6	6
San Juan Capistrano		Water Truck	Suppress dust	1	6	4
Capistrano 138/12 kV		Dump/Haul Truck	Transport import/export material	641	6	1
		Excavator	Excavate and load material	1	2	6
		Concrete Truck	Pour concrete	1290	5	1
		Drill Rig with Augers	Drill pier foundations	1	1	8
	Below Grade Construction	Backhoe	Excavate pad foundations	1	8	8
		Fork Lift/Skid Steer Loader	Move rebar, equipment, masonry, and other materials	1	8	5

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Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
		Small Mobile Crane (12- ton)	Place material and set steel	1	8	2
		Trencher/Ditch Witch	Excavate trenches	1	8	8
	Below Grade Construction	Loader	Move bulk material	1	5	6
	Construction	Water Truck	Suppress dust	1	8	2
Substation: San Juan Capistrano 138/12 kV		Handheld Compactor	Compact soil	1	5	6
		Dump/Haul Truck	Transport import/export material	806	6	1
	Above Grade Construction	³ / ₄ -ton or 1-ton Pickup Truck	Transport and support construction personnel	4	13	1
		Bucket Truck/Manlift	Set steel and install equipment	2	13	8
		Large Crane	Place material and set steel	1	3	8
		Boom Truck	Place material and set steel	2	10	5
		Fork Lift/Skid Steer Loader	Unload and move material	2	12	8
		Line Truck	Assist with underground conductor installation	2	1	6

Project Component	Activity	Equipment	Use	Approximate Quantity	Approximate Duration On Site (months)	Average Duration of Use (hours per day)
Substation: San Juan Capistrano 138/12 kV	Above Grade Construction	Cable Dolly (trailer)	Transport reels of conductor	1	3	2
		Stringing Rig (trailer)	Assist with conductor installation	NA		
		SF6 gas cart (electric)	Fill equipment with SF6	1	1	24
		100-hp Oil Processing Truck	Process transformer Oil	1	.2	24
	Relay Testing	Relay/Telecommunication Van	Transport and support construction personnel	2	6	1
	Energization (138 kV) 138/12 kV Substation Cutovers	Relay/Telecommunication Van	Transport and support construction personnel	2	1	1
		Line Truck	Assist with sub const	2	1	1
	Energize Temporary TL13835	Relay/Telecommunication Van	Transport and support construction personnel	2	1	1
		Line/Crew Truck	Assist with sub const	2	1	1
		Bucket Truck/Manlift	Set steel and install equipment	2	1	8
		Stringing Rig (trailer)	Assist with conductor installation	1	.5	4