



Sun and Weather

Date: **4-16-25**
Photo Time: **10:25 am**

Visibility:

Good

Poor

Air Quality: Good

Sun Azimuth (degrees): **108.09**

Sun Angle (degrees): **42.2**

Lighting Angle on Project: **Side**

Wind: **15 mph**

Cloud Cover: **20 %**

Temperature (°F): **65° F**

Lava Run Interconnection Project

KOP Location and Project Elements

Structure Diagram

Extent of Single Frame Simulation

KOP 1 - Arizona State Land, Unnamed Road

Base Photographic Documentation

Latitude, Longitude (degrees): **34.252804, -109.268598**
Viewpoint Elevation (feet): **6,695**
Camera Height (meters): **1.5**
Camera Heading (degrees): **190**
Camera Make & Model: **Canon EOS 5D Mark IV**
Camera Sensor Size (mm): **36 x 24 Full Frame**
Lens Make & Model: **AF-P Nikkor**
Lens Focal Length (mm): **50**
Image Size (pixels): **6720 x 4480**

Approximate Distance to Nearest Interconnection Project Structure in Simulation Option 1: **0.62 miles**

Approximate Distance to Nearest Interconnection Project Structure in Simulation Option 2: **0.9 mile**

Lava Run

Wind & Solar Projects

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Simulation was prepared using information provided by client, "Lava Run_T-Line Prelim Civil Design_20250417" dated May 13, 2025. Locations, colors, and heights may vary based on final engineering and design.



Sun and Weather

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Sun Angle (degrees): **42.2**

Lighting Angle on Project: **Side**

Wind: **15 mph**

Cloud Cover: **20 %**

Temperature (°F): **65° F**

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Lava Run Interconnection Project

KOP Location and Project Elements

Structure Diagram

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Sun and Weather

Date: **4-16-25**

Photo Time: **1:15 pm**

Visibility:

Air Quality: **Good**

Sun Azimuth (degrees): **172.03**

Sun Angle (degrees): **66.65**

Lighting Angle on Project: **Side**

Wind: **25 mph**

Cloud Cover: **20 %**

Temperature (°F): **75° F**

Turbines facing 247.5 degrees west-southwest with a maximum height of 654 feet.

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Lava Run Interconnection Project

KOP Location and Project Elements

Structure Diagram

KOP 2 - US 191

Base Photographic Documentation

Latitude, Longitude (degrees): **34.23006, -109.340468**

Viewpoint Elevation (feet): **6,650**

Camera Height (meters): **1.5**

Camera Heading (degrees): **320**

Camera Make & Model: **Canon EOS 5D Mark IV**

Camera Sensor Size (mm): **36 x 24 Full Frame**

Lens Make & Model: **AF-P Nikkor**

Lens Focal Length (mm): **50**

Image Size (pixels): **6720 x 4480**

Approximate Distance to Nearest Interconnection Project Structure in Simulation: **0.6 mile**

Approximate Distance to Nearest Turbine in Simulation: **5.1 miles**

Number of Turbines Visible in Simulation: **4**

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Sun and Weather

Date: 4-16-25
Photo Time: 2:30 pm

Sunny

Visibility: Good

Air Quality: Good

Sun Azimuth (degrees): 215.24

Sun Angle (degrees): 62.81

Lighting Angle on Project: Side

Wind: 25 mph

Cloud Cover: 20 %

Temperature (°F): 75° F

Turbines facing 247.5 degrees west-southwest with a maximum height of 654 feet.

Lava Run Interconnection Project

KOP Area Enlargement

KOP Location and Project Elements

Structure Diagram

Height to Tip of Blade: 654 feet

Height to Nacelle: 387 feet

Height to Tip of Structure: 180 feet

Visual simulations developed using the tallest structure under consideration (180 feet).

KOP 3 - US 60 Eastbound

Base Photographic Documentation

Latitude, Longitude (degrees): 34.243495, -109.519391

Viewpoint Elevation (feet): 7,285

Camera Height (meters): 1.5

Camera Heading (degrees): 120

Camera Make & Model: Canon EOS 5D Mark IV

Camera Sensor Size (mm): 36 x 24 Full Frame

Lens Make & Model: AF-P Nikkor

Lens Focal Length (mm): 50

Image Size (pixels): 6720 x 4480

Approximate Distance to Nearest Interconnection Project Structure in Simulation: 0.7 mile

Approximate Distance to Nearest Turbine in Simulation: 0.75 mile

Number of Turbines Visible in Simulation: 12

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Extent of Single Frame Simulation



Sun and Weather

Date: **4-16-25**

Photo Time: **8:10 am**

Sunny

Visibility:

Air Quality: Good

Sun Azimuth (degrees): **87.06**

Sun Angle (degrees): **14.4**

Lighting Angle on Project: **Side**

Wind: **25 mph**

Cloud Cover: **20 %**

Temperature (°F): **60° F**

Lava Run Interconnection Project

KOP Area Enlargment

Height to Tip of Structure: **180 feet**

Visual simulations developed using the tallest structure under consideration (180 feet).

KOP Location and Project Elements

Structure Diagram

KOP 4 - Arizona State Land, Unnamed Road

Base Photographic Documentation

Latitude, Longitude (degrees): **34.275732, -109.162706**

Viewpoint Elevation (feet): **7,100**

Camera Height (meters): **1.5**

Camera Heading (degrees): **335**

Camera Make & Model: **Canon EOS 5D Mark IV**

Camera Sensor Size (mm): **36 x 24 Full Frame**

Lens Make & Model: **AF-P Nikkor**

Lens Focal Length (mm): **50**

Image Size (pixels): **6720 x 4480**

Approximate Distance to Nearest Interconnection Project Structure in Simulation: **0.7 mile**

Approximate Distance to Nearest Interconnection Project Substation in Simulation: **0.6 mile**

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Extent of Single Frame Simulation

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Sun and Weather

Date: **4-16-25**
Photo Time: **12:40 pm**

Visibility:

Air Quality: Good

Sun Azimuth (degrees): **151.91**

Sun Angle (degrees): **64.36**

Lighting Angle on Project: **Side**

Wind: **20 mph**

Cloud Cover: **20 %**

Temperature (°F): **70° F**

Lava Run Interconnection Project

KOP Location and Project Elements

Structure Diagram

Extent of Single-Frame Simulation

KOP 5 - County Road 4365

Base Photographic Documentation

Latitude, Longitude (degrees): **34.246289, -109.390297**

Viewpoint Elevation (feet): **6,510**

Camera Height (meters): **1.5**

Camera Heading (degrees): **125**

Camera Make & Model: **Canon EOS 5D Mark IV**

Camera Sensor Size (mm): **36 x 24 Full Frame**

Lens Make & Model: **AF-P Nikkor**

Lens Focal Length (mm): **50**

Image Size (pixels): **6720 x 4480**

Approximate Distance to Nearest Interconnection Project Structure in Simulation: **0.8 mile**

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Sun and Weather

Date: **4-16-25**

Photo Time: **11:40 am**

Visibility:

Air Quality: **Good**

Sun Azimuth (degrees): **126.89**

Sun Angle (degrees): **56.11**

Lighting Angle on Project: **Side**

Wind: **20 mph**

Cloud Cover: **20 %**

Temperature (°F): **70° F**

Turbines facing 247.5 degrees west-southwest with a maximum height of 654 feet.

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Lava Run Interconnection Project

KOP Location and Project Elements

Structure Diagram

Extent of Single Frame Simulation

KOP 6 - US 60 Wesbound

Base Photographic Documentation

Latitude, Longitude (degrees): **34.22948, -109.492823**

Viewpoint Elevation (feet): **7,305**

Camera Height (meters): **1.5**

Camera Heading (degrees): **325**

Camera Make & Model: **Canon EOS 5D Mark IV**

Camera Sensor Size (mm): **36 x 24 Full Frame**

Lens Make & Model: **AF-P Nikkor**

Lens Focal Length (mm): **50**

Image Size (pixels): **6720 x 4480**

Approximate Distance to Nearest Interconnection Project Structure in Simulation: **0.85 mile**

Approximate Distance to Nearest Turbine in Simulation: **0.67 mile**

Number of Turbines Visible in Simulation: **16**

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