Primm Solar Generating Plant Plan of Development

Submitted to:

Bureau of Land Management
Las Vegas Field Office
4701 North Torrey Pines
Las Vegas, Nevada, 89103

Submitted by:

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Project Description

a) Type of System or Facility

NextLight proposes to construct a 250 megawatt concentrating solar thermal generation facility utilizing parabolic trough technology (the Project) on land administered by the Department of Interior, Bureau of Land Management. The Project will provide for 2.5-hours of thermal storage to increase plant reliability and dispatchability.

The electrical output of the Project and all associated green and capacity attributes will be provided to NextLight's utility customer. The Project will produce an insignificant level of emissions, and will qualify as an eligible renewable resource within the meaning of California's Renewables Portfolio Standard ("RPS") legislation and associated regulations. Because of its storage capability, the Project will also provide resource adequacy and operational benefits to SCE, including the potential for on-peak dispatchability.

Figure 1 shows the Project location. Figure 2 is a plan view of the proposed project and the general location of related linear facilities, including proposed roads, transmission interconnect, gas interconnect, and water interconnect. The Project would interconnect into the existing Southern California Edison transmission system located north of the proposed solar plant. The electricity generated by the Project will be sold to utilities in Nevada, California and Arizona.

b) Related Structures and Facilities

NextLight has filed an application with the CAISO to interconnect a solar project of up to 375 MW with Southern California Edison's (SCE) Mountain Pass – El Dorado Transmission Line. The CAISO Queue Number is 289. This request will more than accommodate the proposed Primm Project which is nominally rated at 250MW. The El Dorado – Mountain Pass transmission line is currently operated at 115 kV but is being upgraded by SCE to 230 kV to increase its capacity to accommodate renewable energy projects proposed in California and Nevada.

(The following discussion describes the location of the Project and its various components. Please refer to Figure 3 and Figures 4a – 4f, included in Attachment A of this document.)

To connect with the Mountain Pass – El Dorado Transmission Line, the Primm Project must build a 2.5-mile transmission line (gen tie) and a small switch station (approximately 2.5-acre in size) on public land administered by BLM. The proposed switch yard will be located at this intersection. Figure 3 shows the proposed transmission route for the generation tie line and the location of the switchyard. Figure 4c provides additional detail and shows the layout of the proposed switch yard which will be a three breaker/ring bus design.

As shown in Figure 3, the gen tie will travel east from the Project site for 1-mile paralleling the right of way of an existing 500 kV transmission line. The route will turn north at Reliant Energy's Bighorn Power Plant and travel 0.3-miles to the Bighorn Power Plant switch yard. From this point, the route will turn north and travel 1-mile paralleling Nevada Power Company's existing Bighorn – Arden Transmission Line until the gen tie intersects with the Mountain Pass – El Dorado Transmission Line.

The Project will require an interconnection with the Kern River Gas Transmission Company's system to provide fuel for the Project's auxiliary systems. An approximately 1-mile pipeline will need to be constructed north to the Bighorn Power Plant in order to connect with the Kern River System. The proposed pipeline route will parallel the proposed plant access road as shown in Figure 2.

A 1-mile water pipeline is required to deliver water from the Primm Resort treatment plant to the plant site. The route will parallel the proposed plant access road as shown in Figure 2.

The Project requires vehicular access for construction, operation, and maintenance. NextLight will negotiate an access agreement with Reliant Energy to provide access to the site via the existing railroad overcrossing constructed by Reliant Energy for the Bighorn Project. An approximately 1-mile two lane paved access road will need to be constructed from the Reliant railroad overpass to the Project site. The plant access road will be designed to accommodate equipment deliveries, the construction workforce and ultimately the operational needs of the Project. The plant access road is located on public lands administered by BLM. Figure 2 shows the location of the proposed plant access road. Additional detail is provided in Figure 4d illustrating a preliminary road alignment and typical road cross section.

c) Physical Specifications

Figure 4b shows a preliminary layout of the plant and proposed linear facilities, including the location of mirror fields, balance of plant, associated ancillary facilities, interior roads and temporary construction areas. Figure 4c provides a detailed view of the power block layout. Temporary construction areas will be required. These will be located within the Primm site boundary.

d) Term of Years Needed

NextLight requests a term of 30 years, which is consistent with the expected life of the Project.

e) Time of Year of Use or Operation

The Project will operate throughout the year when there is sufficient insolation. Because there are many clear days during the winter, it is expected that the plant will produce significant amounts of electricity during winter months.

The Project will use parabolic trough solar thermal technology and thermal energy storage ("TES") to produce electrical power using a steam turbine generator ("STG") fed from a solar steam generator ("SSG"). The STG receives heated heat transfer fluid ("HTF") from the solar field comprised of arrays of parabolic mirrors that collect energy from the sun and from the TES system. The TES system uses molten salt to store off-peak solar and excess on-peak energy which is then converted into steam during peak operating periods. The use of TES allows the plant to shift power deliveries from the morning to the afternoon, when demand is the highest and mitigates the effect of transient cloud cover.

The plant configuration includes approximately 2.5 hours of thermal storage, sized to match the solar field at the site and the selected steam turbine generator. This configuration will provide highly reliable capacity of up to approximately 250 MW during peak summer periods when a stable solar resource is available, and provides flexibility for the utility customer to maximize generation during peak periods of demand. Thermal storage also mitigates the effect of lower solar insolation during periods of transient cloud cover and other daily or seasonal variations. This configuration and how the plant can be dispatched are described further below.

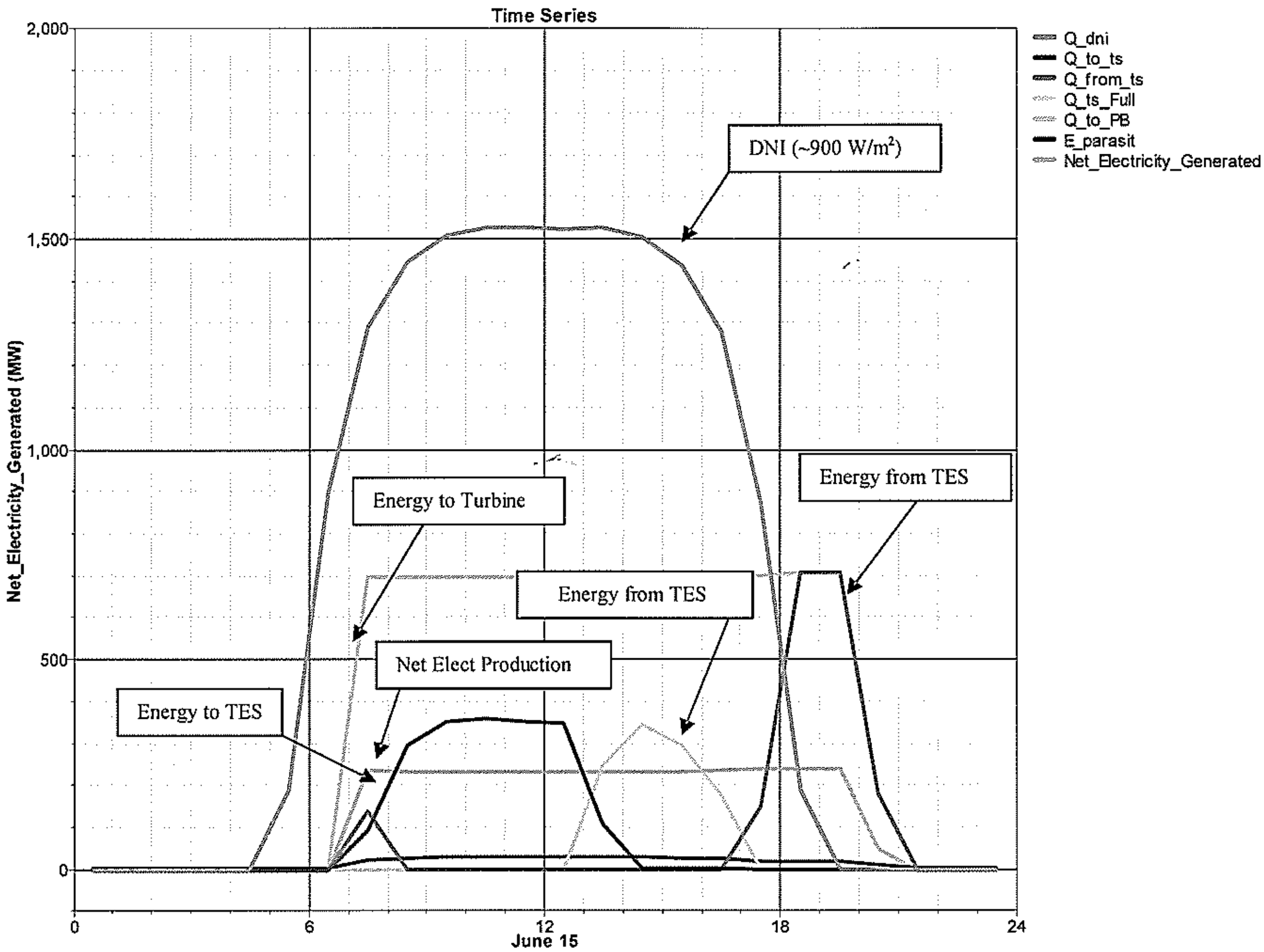
The Project will start up each day based on the amount of available solar radiation and the amount of energy stored in the TES system. Each morning as the sun rises above the horizon, the plant operator will start circulating HTF through the solar field to collect heat. The heat collected in the solar field will be stored in the TES system until the TES system reaches its maximum thermal capacity (measured in °F). After the TES system has reached its capacity or approximately 45 minutes prior to the desired dispatch time the operator will initiate the STG startup process. The STG will take approximately 45 minutes to reach full load after first steam admission. Figure A below illustrates how the solar field will operate on a typical summer day. The STG and TES system begin operations simultaneously because of high levels of solar radiation that exceed storage intake capability. This excess enables the STG to start up on steam from the solar field energy. On days with lower morning radiation values, the TES will begin to store prior to the STG starting as illustrated in Figure B. In this illustrative example, the STG comes on line two hours after the TES system is activated and one hour later than it would otherwise have started without thermal storage.

The plant operator can adjust plant output up or down by either using energy from the TES system or storing energy in the TES system. During peak operation, the operator will use the TES system to maximize the plant output.

As the sun sets and the solar radiation is diminished, energy will be used from the TES system to maintain the desired output level as long as possible. As illustrated in Figures A and B, the TES system enables the STG to run at full capacity for an additional two hours beyond the time at which solar radiations have dropped below the level required to support full STG capacity. When the TES system reaches its minimum capacity or when the generation is not needed, the plant operator will shut down the STG and set the plant in hot-standby. In the hot-standby mode, the plant is ready to start collecting energy the following morning.

Figure A

Solar Field Cycle for a Typical Summer Day



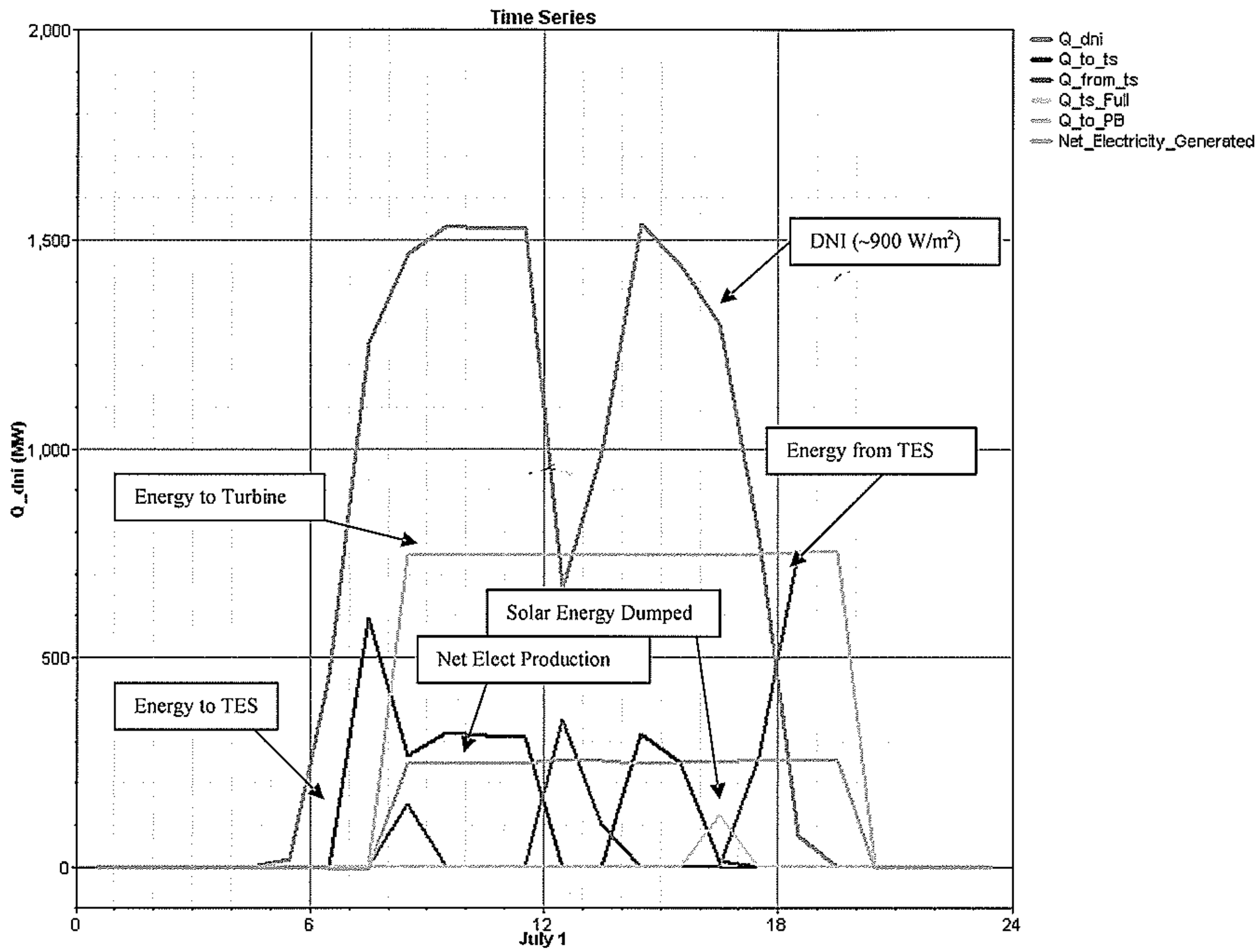
Load Following and Dispatchable Power

With the integration of TES system, the plant can provide load following capabilities by using energy stored in the TES system to quickly increase plant output as necessary. The TES system also allows the plant to operate during periods of transient cloud cover without losing more than 5% of the plant's output.

Figure B illustrates the solar field performance when cloud cover interrupts the solar radiation midday. In this illustrative example, cloud cover causes the solar radiation to drop below the normal level for approximately two hours. However, the STG continues to run at near full capacity during the period. The TES system is then recharged after the cloud cover has cleared and provides approximately two (2) additional hours of full load generation at the end of the day.

The TES system allows the plant to provide day ahead dispatch capability and firm hour ahead power scheduling even during cloudy conditions.

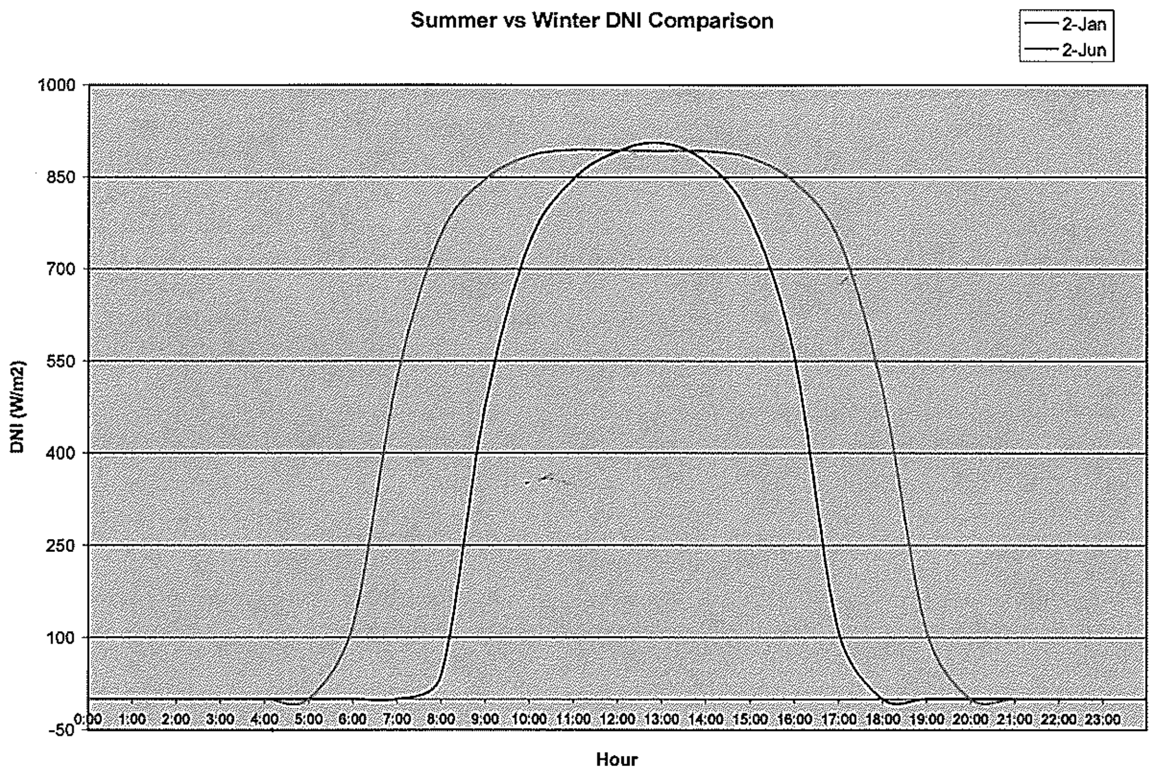
Figure B
Solar Field Operation During Cloud Cover



Plant Limitations

Because the Project captures the power of the sun to generate electricity, its output is determined by the availability and intensity of sunlight. The use of TES mitigates the effect of daily fluctuations in solar radiation days. Nevertheless, on extremely cloudy days, the plant may not be able to collect solar energy and therefore operating capacity would be limited to the energy stored in the TES system. The average output levels of the plant will also vary by season depending on the number of daylight hours. The TES system will allow the plant to reach peak output throughout the year, but for fewer hours in the winter, on average, than in the summer due to the more limited availability of sunlight. The peak output during the winter may reach close to the peak output during summer months however for much fewer hours. In fact, the peak solar radiation in the winter is higher than in the summer as illustrated in Figure 3.

Figure 3
Summer vs. Winter Direct Normal Insolation



Attachment C shows a plant heat balance. All electricity from the Project will be generated from available solar insolation. The plant will require approximately 50,000 MMBTU of natural gas annually to prevent "freezing" of the thermal oil (which must be maintained above 54°F) in the solar collector during low winter temperatures, and to maintain minimum steam temperature when the plant is not operating. This amount of natural gas is less than 2% of the total energy produced by the Project.

The operating workforce will work force will be present on site 24-hours per day. Typically, the plant operators work either 12-hour or 10-hour shifts. Maintenance and administrative staff typically work 8-hour days, Monday through Friday. During periods when non-routine maintenance or major repairs are in progress, the maintenance force will typically work longer hours.

f) Preconstruction Site Requirements

Prior to commencement of construction, NextLight and its consultants will require access to the site to perform engineering and environmental investigations. As the earliest practical time, NextLight's consultants will need to perform biological and cultural surveys of the site to inventory wildlife and cultural resources. For both surveys, NextLight will meet with BLM resource specialists, U.S.F.W.S. representatives and the State Historic Preservation Officer and Native American representatives to develop approved protocols for these surveys.

Engineering studies required for project design include topographical surveys and insolation monitoring stations. Land surveyors will conduct a topographical survey which will require placing panels on the site and developing control points on the site. Insolation monitoring will require placing small meteorological towers on the site and a small building to store monitoring and recording equipment. The meteorological areas will be fenced to provide security. Geological testing, installation of monitoring wells, and other earth disturbing test may be also required. NextLight will obtain permits from BLM prior to conducting the work.

g) Duration and Timing of Construction

The expected construction period is approximately 32 months. Construction will begin after permitting is complete and all regulatory approvals and commercial arrangements are in place.

Construction work forces typically work 10-hour days, Monday through Friday. The typical work day is from 7:00 a.m. to 4:30. During hot summer days the work hours may be modified to work during hours of the day when temperatures are cooler. Some week end work may occasionally be required to maintain the construction schedule. A 24-hour per day security force will be maintained on site to protect the public and prevent vandalism.

h) Temporary Work Areas Needed for Construction

Temporary work areas required to construct the plant are shown on Figure 2, which include those areas of the site boundary not occupied by the plant and related facilities. Figure 4c shows the 5-acre temporary construction area required for the proposed switchyard. The power plant and switchyard will serve as construction work areas for the electric transmission line. Construction of the natural gas pipeline and water pipelines will utilize the plant access road. Additionally, a working strip approximately 10-foot wide will be required to place excavated soil during pipeline construction.

Location of Project (See Figure 1)

The proposed Project site is located in Clark County, Nevada approximately 2 miles southeast of the community of Primm. NextLight's application is on BLM lands bounded on the west by the Union Pacific railroad and on the north by Reliant Bighorn Plant comprising approximately 3.8 sections (about 2,500 acres) of BLM land, as further described in the legal description below:

Refer to USGS State Pass 7.5 Minute Quad Sheet:
T27S, R59E: Sections – W ½ of Section 13; Section14; Section 15, NW ¼ of Section 24; N ½ of the SW ¼ of Section 24; N ½ of Section 23; N ½ of the S ½ of Section 23; N ½ of Section 22; N ½ of the S ½ of Section 22.

State or Local Government Approval

The Project will require discretionary permits from Nevada State permitting authorities. The Project will apply for any required state permits and undergo the permitting review concurrently with the federal NEPA review. Table 1 is a list of Federal and State approvals that NextLight believes will be required by the project.

Table 1
Preliminary List of Permits Required for NextLight's Primm, Nevada CSP Project

Permitting Authority	Permit	Trigger
BLM	NEPA Compliance Record of Decision (ROD) for Environmental Impact Statement (EIS)	Any action on BLM lands
BLM	NHPA Section 106 Compliance	Any action on BLM lands
BLM	Right-of-Way Grant	Development on BLM lands
USFWS	Fish & Wildlife Service Section 7 Biological Opinion	Construction
USACE	Corps of Engineers Section 404 Permit	Construction
Nevada DWR	Environmental Permit-Water Acquisition/Supply	Operations
Nevada DEP	Stormwater Discharge Permit (NOI)	Construction
Nevada DEP	Water Discharge Permit	Operations
Nevada DEP	401 Water Quality Certification	Construction
Nevada PUC	UEPA Permit	Construction of tie in transmission line and substation (230 KV)
Clark County DAQEM	Air Quality Permit	Air emissions
Clark County	Ministerial Permits	Construction

<u>Statement of Technical and Financial Capability</u>

The cost of the proposed Project is estimated in excess of one billion dollars. NextLight and its owner Energy Capital Partners have the experience and financial capability to permit, finance, construct, operate proposed Project, and market the power generated by the Project. NextLight has assembled the following team for the development and operation of the Primm Project.

NextLight Renewable Power, LLC ("NextLight")

NextLight is an energy development company headquartered in San Francisco, California. NextLight's principal purpose is the development of cost-effective, utility-scale generating facilities using proven solar technologies. In their previous roles, members of the NextLight team have procured over 2,500 MW of renewable energy and have developed, permitted and constructed and operated over 8,000 MW of generation in the West.

NextLight's senior management team is uniquely familiar with the goals and objectives of California's investor owned utilities. NextLight staff has participated in every aspect of California's RPS regulatory and policy proceedings and also have a deep understanding of the physical transmission system and interconnection process.

NextLight was formed by Energy Capital Partners ("ECP") to respond to the growing demand for clean, carbon-free, utility-scale renewable generating capacity. Together, the two firms bring expertise in energy development and financing and the financial resources to build large-scale renewable projects. Supported by its parent, ECP, NextLight has the development expertise and financial strength to ensure aggressive project development and timely on-line production.

Energy Capital Partners

Energy Capital Partners I, LP, a Delaware limited partnership ("Energy Capital Partners I, LP"), and its parallel funds managed by ECP, a $2.25 billion private equity fund dedicated to investing in North American energy infrastructure. ECP has deep capital resources and a high quality diversified investor base consisting of over 120 limited partners. California State Teachers Retirement System (CalSTRS) is the largest limited partner in Energy Capital Partners I, LP.

Members of ECP's senior management team have played leading roles in the acquisition of over 130 energy-related assets with a value of over $10 billion. ECP's principals and senior management have previously held senior leadership positions at Goldman Sachs Power, Orion Power, Constellation Energy Commodities Group and U.S. Generating Company.

ECP invests in a broad range of assets and businesses including power generating resources, electricity and natural gas transmission and other related infrastructure assets. Recent ECP transactions include (i) an acquisition of Northeast Utilities' 1,422 MW generation fleet; (ii) an acquisition of the Empire Generating Plant, a 635 MW combined cycle gas-fired plant under construction near Albany, New York; and (iii) the development of a 96 MW peaking plant in Connecticut. ECP is committed to ensuring that NextLight has the capital necessary to support its investment in the Project and to grow its business successfully.

ACS-Cobra

With over 160 offices throughout the world and 17,000 professionals, ACS-Cobra is the foremost engineering and construction firm in the renewable energy sector. ACS-Cobra has teamed exclusively with NextLight and is available to provide engineering, procurement, and construction support to the Project. ACS-Cobra is the majority owner and builder of Andasol 1 and Andasol 2, the first two solar energy projects being built in Spain. These projects represent the latest enhancements to conventional solar trough technology, providing the most efficient and reliable solar thermal technologies and also incorporating thermal storage so that plant output can be customized to match load profile. ACS-Cobra is providing construction and performance guarantees for the Andasol plants and has the wherewithal to provide the same backing for this project.

ACS-Cobra has partnered with SENER, an international energy engineering firm headquartered in Bilbao, Spain, to utilize SENER's solar trough and solar thermal designs in its solar energy projects. The two companies are partners in Andasol 1 and Andasol 2, and will bring these technology enhancements to the Project.

WorleyParsons

NextLight has engaged an experienced team in WorleyParsons' renewable energy practice to provide design and engineering support for the Project. The team has provided engineering support to a broad portfolio of clients in the utility-scale solar energy field, including utilities, major IPPs, and recently formed ventures. WorleyParsons is available to provide services throughout the Project's life from concept selection, plant configuration tailored to match utility load, preliminary engineering and detailed design. WorleyParsons commenced operations over 25 years ago and now employs 27,700 personnel in 84 office locations in over 32 countries. WorleyParsons has an established track record of successfully executing major projects for its customers.

13) Alternate Locations

a. Describe other reasonable alternative sites

An alternate site was evaluated west of Jean, Nevada. Figure 5 shows the location that was investigated.

b. Why were these alternatives not selected?

The site west of Jean was not selected because of potential conflicts with the Jean water supply and proposed expansion of Jean Airport.

c. Give explanation as to why it is necessary to cross Federal Lands

Much of the land in the desert southwest, with its excellent solar resource, is owned by the Federal government and administered by the BLM. The Federal government, as well as many states such as Nevada and California, has enacted legislation to increase the use of renewable fuels, so as to diversify their power supply, reduce pollution and greenhouse gas emissions, and reduce America's dependence on limited fossil fuels. In order to accomplish these ambitious objectives it is necessary to develop solar power on Federal lands in the desert southwest. The Federal land that NextLight is applying for is near electrical transmission lines with enough capacity to deliver power to customers throughout the West, has a high quality solar resource, and is one of the best uses for the site.

List Authorizations and Pending Applications for Similar Projects

NextLight does not have authorizations or pending applications at this time. Concurrent with this application, NextLight is filing applications for similar projects with BLM offices in Arizona, Nevada, and California. NextLight is aware of many other parties that have submitted solar trough project applications to the BLM offices in the desert region of California, southern Nevada, and Arizona. Examples of pending applications for similar projects by third parties unrelated to NextLight include:

BLM Field Office	BLM Serial Number	Initial Date SF 299 Filed
Barstow	CACA 048741	01/18/2007
Barstow	CACA 048742	01/18/2007
Palm Springs	CACA 048810	02/22/2007
Palm Springs	CACA 049493	11/06/2007

Provide Statement of Need for Project, Project Economics, Public Benefits

Nevada, California, and other western states have passed renewable portfolio standard laws requiring utilities in these states to increase their use of renewable fuels. In order to achieve these goals, it is necessary to build new renewable energy facilities, including substantial solar energy facilities such as the Project. Public benefits from the Project include: 1) it helps to diversify and the region's power supply, 2) it reduces pollution and greenhouse gas emissions from the utility sector, and 3) it reduces America's dependence on limited fossil fuels.

The cost of the Project is estimated in excess of one billion dollars ($1 billion). NextLight expects to market the project's output to utilities in Nevada, California and Arizona. Based upon NextLight's pro forma projections, we believe that the project will be able to deliver power to El Dorado Substation at a price competitive with the California Market Price Reference (MPR) which is currently in the range of $115 - $135 per megawatt hour for renewable power. The MPR continues to rise with increasing fuel prices. The project will also produce power at prices that are competitive in the market for peaking power. Since the plant's output with storage has a profile similar to summer peak loads in the West, it is anticipated that there will be a demand for the plant's output during hot summer days.

Describe Probable Social and Economic Effects on the Area's Population

The economic effects of the Project on the area's population will occur primarily during the construction phase, which is expected to require approximately 450 construction workers for 2 to 3 years and approximately 300 truckloads of equipment and materials delivered per week. The estimated project payroll during the construction period is approximately $200 million. The benefits of the payroll will flow primarily into the Clark County economy. Primm will receive financial benefits from the project through increased demand for services from local businesses and workers.

During the operational phase of the Project, the economic effects will be smaller, but significant. The Project may employ 75 maintenance and security workers. Many of these workers are likely to reside in the Las Vegas metropolitan area located 50 miles to the north on Interstate 15, and therefore have less demand for local services. Estimated annual payroll to operate the project is approximately $5 million.

Primm is largely engaged in serving travelers on I-15. There is an apartment complex that provides housing for workers who prefer not to commute from Las Vegas. Since the Project work force will primarily commute from Las Vegas, there will be limited impact on housing and other public services in Primm.

The environmental effect of the project is primarily visual and loss of habitat due to the size of the mirror field. The visual effects will be reduced somewhat by the location which is 2-miles from I-10 and Primm. The 1,600 site will be graded and fenced which will reduce its habitat value for most species. NextLight will provide necessary mitigation to compensate for losses of wildlife values.

NextLight will describe the probable environmental, social and economic effects of the Project in greater detail in the Plan of Development.

Describe the Likely Environmental Effects of the Project

a. Air Quality

The anticipated effects of the Project on air quality during the construction are fugitive dust emissions from grading. Approximately 1,600 acres need to be graded to prepare the site for the proposed project. It is estimated that grading activity will occur during a three month period at the start of construction. The uncontrolled effects of grading could potentially generate 14.9 tons of fugitive dust emissions. To reduce these emissions, the Clark County Department of Air Quality and Environmental Management has established job site requirements that reduce fugitive dust from construction sites. These requirements include regular watering of job site roads and areas where grading is occurring. These requirements reduce the expected fugitive dust emissions to 1.5 tons during the three month site preparation period.

During plant's operational phase, there will be limited use of the natural gas-fired auxiliary equipment. Table 2 provides an estimate of the annual air emissions expected during operation. All equipment requiring heat input will be operated in accordance with applicable permits obtained from the Clark County Department of Air Quality.

Table 2
Maximum Onsite Facility Operational Emissions

Time (units)	CO	VOC	NO_x	SO_x	PM_{10}	$PM_{2.5}$
Peak Hourly (lbs per hour)	4.4	0.0	3.2	0.0	6.2	2.1
Peak Daily (lbs per day)	39	20	16	20	86	29
Annual (tons per year)	1.8	0.5	2.3	0.0	9.4	3.6

Because the project's emission of criteria pollutants and greenhouse gasses are very low, the project creates significant environmental benefits because it will replace generating from power plants that burn fossil fuels.

b. Visual Impact

The Project's solar array will cover approximately 1,600 acres (2.5) square miles which will result in a visual impact. The Project area is located 2 miles from Interstate 15 and the community of Primm which will reduce visual impacts from these locations.

The site is within a Class III Visual Resource Management Area. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.

The project is located in the Ivanpah Valley which is characterized by expansive arid landscapes comprising hundreds of square miles. The landscape has been significantly modified because its strategic location between Los Angeles and Las Vegas makes it a major transportation thoroughfare. Transportation features include the I-15 Freeway, mainline railroad tracks, gas and electric utility corridors. Additionally the Ivanpah Valley contains power plants, gambling casinos, airports and golf courses. While the Project covers a large area and will be observable from many locations, it will affect only a relatively small percentage of the Ivanpah Valley landscape. The overall character of the Ivanpah Valley will remain.

c. Surface and Ground Water Quality and Quantity

The Project will require water during construction to mix concrete for foundations and for dust control. For operations, the Project will use air-cooled condensers to reduce the plant's water total water consumption. Approximately 80 acre feet of water will be required annually for boiler feed water make-up and mirror wash. Nextlight has discussed the Plant's water requirements with the Primm Resort. There is excess effluent from Primm Wastewater Treatment Plant that currently is discharged to Recharge Influent Basins. Primm Resort's estimated annual discharge is 330 acre feet. Approximately 90 acre feet of the discharge are re-used by Reliant Energy's Bighorn Plant. The remaining 240 acre feet of waste water is available for re-use which would more than serve the needs of the Project. A water agreement will need to be negotiated with the Terrible Herbst Corporation which owns Primm Resort to obtain water for the Project.

There are no perennial streams running through the site.

d. Control or Structural Change of any Stream or Other Body of Water

The Project area contains washes that are dry most of the year. NextLight will need to grade the site in order to construct the Project. It may be necessary in places to alter the wash channels in order to protect the Project from flooding. There is an existing railroad right of way drainage system down gradient from the Project. Drainage across the Project site will be designed to be compatible with the existing railroad and other downstream drainage systems. The grading plan will be developed in consultation with the Army Corps of Engineers. The grading plan will be part of the Plan of Development prepared for the Project.

e. Existing Noise Levels

During the construction phase, the town of Primm and residents along the road leading to the Project site may be subject to increased noise levels due to increased vehicular traffic. Increased noise levels from the Project should be minimal during operation.

f. Surface of the Land Including Vegetation, Soil and Soil Stability

NextLight will need to remove vegetation and grade the Project site to provide a flat area for the solar array field and associated structures. The environmental effects of the grading will be described and evaluated in greater detail in the Plan of Development.

Describe the Probable Effects of the Project on Wildlife and Threatened and Endangered Species

The Project site will be graded and fenced, which will result in the removal of habitat for resident species. The probable effects of the Project on plant life and wildlife, including threatened and endangered species will be further described in the Plan of Development.

Hazardous Materials

a. Construction

Hazardous materials that are anticipated for use during Project construction including gasoline, diesel fuel, oil, lubricants, welding gases (e.g., acetylene, oxygen, and argon) and small quantities of solvents and paint. There are no feasible alternatives to these materials for operating construction vehicles and equipment and conducting other construction activities such as welding. No acutely hazardous substances will be used or stored on the plant site during construction.

Diesel fuel is the hazardous material with the greatest potential for environmental consequences during the construction phase due to the use of diesel fuel in construction equipment and the frequent refueling that will likely be required. To minimize the potential for a release, diesel fuel will not be stored on-site, except in equipment/vehicle fuel tanks. When refueling is required, a mobile fuel truck will be brought on-site to fuel each piece of equipment. The fueling will be supervised by both the fuel truck and equipment operators. Any fuel spilled will be promptly cleaned up, and any contaminated soil disposed of in accordance with the applicable State and Federal requirements.

Small volumes of hazardous materials will be temporarily stored on-site inside fuel and lubrication service trucks. Paints and solvents will be stored in flammable material storage cabinets. Welding gases will be stored in steel cylinders, chained upright to a solid support structure with the safety cover over the valve when not in use to prevent damage. Maintenance and service personnel will be trained in handling these materials. The most likely incidents involving these hazardous materials would be associated with minor spills or leaks. Impacts to the site workers, the public or the environment of a minor spill or leak will be mitigated through the emergency response training program and procedures that will be implemented by project construction contractors and employees, and by thoroughly cleaning up minor spills as soon as they occur. Soil contaminated by a spill or leak will be disposed in accordance with applicable State and Federal requirements. Minimal risk for fire and/or explosion exists with the use of these types of materials in the limited quantities expected. There is minimal potential for environmental impacts from incidents involving other hazardous materials during construction.

b. Operation and Maintenance

A limited amount of hazardous materials will be used and stored on-site during for operation and maintenance. The auxiliary boiler will use pipeline natural gas rather than oil-based products. The petroleum-based products required to operate and maintain the Project include: Heat Transfer Fluid (HTF), lubricating oil for the Steam Turbine, diesel fuel for the emergency generator, hydraulic control fluid and transformer oil. As part of the Project design, an SPCC plan will be developed by a registered engineer in accordance with Federal Regulations to protect the environment form spills of petroleum products.

A list of the large-quantity hazardous materials stored and used on-site along with the toxicity and storage practices for each material is provided in Table 3 below. For the purpose of this discussion, "large quantity" is defined as those chemicals stored or used in excess of 55 gallons for liquids, 500 pounds for solids and 200 cubic feet for compressed gases.

In addition to the chemicals listed in Table 3, small quantities (less than 55 gallons, 500 pounds or 200 cubic feet) of janitorial supplies, office supplies, laboratory supplies, paint, degreasers, herbicides, pesticides, air conditioning fluids (chlorofluorocarbons [CFC]), gasoline, hydraulic fluid, propane, and welding rods typical of those purchased from retail outlets may also be stored and used at the facility. These materials will be stored in the maintenance warehouse or administration building. Flammable materials (e.g., paints, solvents) will be stored in flammable material storage cabinet(s) with built-in containment sumps. The remainder of the materials will be stored on shelves, as appropriate. Due to the small quantities involved, the controlled environment, and the concrete floor of the warehouse, a spill can cleaned up without significant environmental consequences.

Table 3

Large-quantity Hazardous Materials Stored and Used On-site

Hazardous Material	Relative Toxicity[1] and Hazard Class[2]	Permissible Exposure Limit	Storage Description; Capacity	Storage Practices and Special Handling Precautions
Natural Gas (methane)	Low toxicity; Hazard class – Flammable gas	None Established	No on-site storage, up to 140 pounds of natural gas in equipment and piping; pressurized carbon steel pipeline for delivery to site	No storage on-site. Piping will be designed to U.S. Department of Transportation (DOT) specifications; on-site facilities (gas metering) will be designed and operated to industry standards.
Hydrogen	Low toxicity; Hazard class – Flammable gas	None Established	In generator cooling loop and "tube trailer"; total inventory of 63,000 SCF (335 pounds)	Pressure safety tank, crash posts, pressure relief valves
Sodium Hydroxide, 50% solution	High toxicity; Hazard class – Corrosive	PEL: 2 mg/m^3	Carbon steel tank; 8,500 gallons	Isolated from incompatible chemicals and secondary containment

Hazardous Material	Relative Toxicity[1] and Hazard Class[2]	Permissible Exposure Limit	Storage Description; Capacity	Storage Practices and Special Handling Precautions
Sodium Hypochlorite, 12.5% solution	High toxicity; Hazard class – Poison-B, Corrosive	Workplace Environmental Exposure Limit (WEEL) - STEL: 2 mg/m3 PEL: 0.5 ppm (TWA), STEL: 1 ppm as Chlorine TLV: 1 ppm (TWA), STEL: 3 ppm as Chlorine	Plastic tanks; 17,000 gallons total inventory (2 x 8,500 gallons)	Secondary containment
Sulfuric Acid, 29.5% solution	High toxicity; Hazard class – Corrosive, water reactive	PEL: 1 mg/m^3	Contained in batteries; 2,000 gallons total inventory	Isolated from incompatible chemicals and secondary containment
Sulfuric Acid, 93% solution	High toxicity; Hazard class – Corrosive, water reactive	PEL: 1 mg/m^3	Lined, carbon steel tanks; 16,000 gallons total inventory (2 x 8,000 gallons)	Isolated from incompatible chemicals, lined tank, and secondary containment
Carbon Dioxide	Low toxicity; Hazard class – Non flammable gas	TLV: 5,000 ppm (9,000 mg/m^3) TWA	Carbon steel tank, 15 tons maximum on-site inventory	Carbon steel tank with crash posts

Hazardous Material	Relative Toxicity[1] and Hazard Class[2]	Permissible Exposure Limit	Storage Description; Capacity	Storage Practices and Special Handling Precautions
Therminol VP-1 (HTF) Diphenyl ether (73.5%) Biphenyl (26.5%)	Moderate toxicity, Hazard class -- Irritant; Combustible Liquid (Class III-B)	Biphenyl = PEL: 0.2 ml/m^3 (8-hr TWA) TLV: 0.2 ml/m^3 (1 mg/m^3) (8-hr TWA) Diphenyl ether = TLV: 1 ml/m^3(8-hr TWA) TLV: 2 ml/m^3(15-min TWA) PEL: 1 ml/m^3 (7 mg/m^3) (15-min TWA)	1.3 MM gallons in system, no additional on-site storage	Continuous monitoring of pressure in piping network; routine inspections (sight, sound, smell) by operations staff; isolation valves throughout piping network to minimize fluid loss in the event of a leak; prompt clean up and repair.
Lube Oil	Low toxicity Hazard class – NA	None established	Carbon steel tanks, 10,000 gallons in equipment and piping, additional maintenance inventory of up to 550 gallons in 55-gallon steel drums.	Secondary containment for tank and for maintenance inventory
Mineral Insulating Oil	Low toxicity Hazard class – NA	None established	Carbon steel transformers; total on-site inventory of 32,000 gallons	Used only in transformers, secondary containment for each transformer
Diesel Fuel	Low toxicity; Hazard class – Combustible liquid	PEL: none established TLV: 100 mg/m^3	Carbon steel tank (300 gallons)	Stored only in fuel tank of emergency engine, secondary containment.

Hazardous Material	Relative Toxicity[1] and Hazard Class[2]	Permissible Exposure Limit	Storage Description; Capacity	Storage Practices and Special Handling Precautions
Nitrogen	Low toxicity; Hazard class – Non flammable gas	None established	Carbon steel tank; 7,500 pounds total inventory	Carbon steel tank with crash posts
Hydraulic fluid	Low to moderate toxicity; Hazard class – Class IIIB combustible liquid	TWA (oil mist): 5 mg/m^3 STEL: 10 mg/m^3	Carbon steel tanks and sumps; 500 gallons in equipment, maintenance inventory of 110 gallons in 55-gallon steel drums	Found only in equipment with a small maintenance inventory. Maintenance inventory stored within secondary containment.
Water treatment chemical – condensate pH control NALCO Tri-Act 1800 Cyclohexlyamine (5 – 10%) Monoehtanolamine (10 – 30%) Methoxyproplyamine (10 – 30%)	High toxicity; Hazard class – Corrosive, Class II Combustible liquid	Cyclohexlyamine = TLV: 10 ppm (41 mg/m^3) Monoethanolamine = TLV: 3 ppm (7.5 mg/m^3) TWA: 3 ppm (7.5 mg/m^3) STEL: 6 ppm (15 mg/m^3) Methoxyproplyamine = TLV: 5 ppm TWA STEL: 15 ppm	Plastic totes, 2 x 400 gallons	Inventory management, isolated from incompatible chemicals and secondary containment
Water treatment chemical – condensate oxygen scavenger NALCO Elimin-Ox Carbohydazide (5 -10%)	Moderate toxicity; Hazard class – Sensitizer	Carbohydazide = PEL: none established	Plastic totes, 2 x 400 gallons	Inventory management, isolated from incompatible chemicals and secondary containment

Hazardous Material	Relative Toxicity[1] and Hazard Class[2]	Permissible Exposure Limit	Storage Description; Capacity	Storage Practices and Special Handling Precautions
Water treatment chemical – RO oxygen scavenger NALCO Permacare (R) PC-7408 Sodium bisulfite	Low toxicity; Hazard class – Irritant	Sodium bisulfite = PEL: none established: TLV: 5 mg/m^3 TWA	Plastic totes, 2 x 400 gallons	Inventory management, isolated from incompatible chemicals and secondary containment
Water treatment chemical – boiler drum pH control NALCO BT-3000 Sodium hydroxide Sodium tripolyphosphate	High toxicity; Hazard class – Corrosive	Sodium hydroxide = PEL: 2 mg/m^3 Sodium tripolyphosphate = PEL: none established	Plastic totes, 2 x 400 gallons	Inventory management, isolated from incompatible chemicals and secondary containment
Water treatment chemical – closed cooling system NALCO 8338 Sodium nitrite Sodium tolytriazole Sodium hydroxide	Moderate toxicity; Hazard class – Toxic	Sodium nitrite = PEL: none established Sodium tolytriazole = PEL: none established Sodium hydroxide = PEL: 2 mg/m^3	Plastic totes, 2 x 400 gallons	Inventory management, isolated from incompatible chemicals and secondary containment
Welding gas Acetylene	Moderate toxicity; Hazard class – Toxic	PEL: none established	Steel cylinders; 200 cubic foot each, 800 cubic foot total on-site	Inventory management, isolated from incompatible chemicals,
Welding gas Oxygen	Low toxicity; Hazard class – Oxidizer	PEL: none established	Steel cylinders; 200 cubic foot each, 800 cubic foot total on-site	Inventory management, isolated from incompatible chemicals

Hazardous Material	Relative Toxicity[1] and Hazard Class[2]	Permissible Exposure Limit	Storage Description; Capacity	Storage Practices and Special Handling Precautions
Welding gas Argon	Low toxicity; Hazard class – Nonflammable gas	PEL: none established	Steel cylinders; 200 cubic foot each, 800 cubic foot total on-site	Inventory management
Fertilizer Urea	Low toxicity; Hazard class - NA	WEEL: 10 mg/m^3, 8-hour TWA	Stored in bags (dry pellets), 5 x 50-pound, 250 pound total inventory	Inventory management, indoor storage
Fertilizer Monopotassium phosphate	Low toxicity; Hazard class - Irritant	TLV: 10 mg/m^3 (inhalable) 8-hr TWA, 3 mg/m^3 (respirable) 8-hr TWA PEL: 15 mg/m^3 (total dust) 8-hr TWA, 5 mg/m^3 (respirable) 8-hr TWA	Stored in bags (dry pellets), 5 x 50-pound, 250 pound total inventory	Inventory management, indoor storage
Activated Carbon	Non-toxic (when unsaturated), low to moderate toxicity when saturated, depending on the adsorbed material; Hazard class – combustible solid	TWA (total particulate): 15 mg/m^3 TWA (respirable fraction): 5 mg/m^3 TLV (graphite, all forms except graphite fibers): 2 mg/m^3 TWA	Used in two x 2,000-lb canisters, 4,000 pounds total inventory, no additional storage	No excess inventory stored on-site, prompt disposal when spent

Hazardous Material	Relative Toxicity[1] and Hazard Class[2]	Permissible Exposure Limit	Storage Description; Capacity	Storage Practices and Special Handling Precautions
Herbicide Roundup® or equivalent	Low toxicity; Hazard class - Irritant	Isoproplyamine salt of glyphosphate = no specific occupational exposure has been established	No on-site storage, brought on-site by licensed contractor, used immediately	No excess inventory stored on-site
Soil stabilizer Active ingredient: acrylic or vinyl acetate polymer or equivalent	Non-toxic; Hazard class - NA	None established	No on-site storage, supplied in 55-gallon drums or 400-gallon totes, used immediately	No excess inventory stored on-site

[1] Low toxicity is used to describe materials with an NFPA Health rating of 0 or 1. Moderate toxicity is used describe materials with an NFPA rating of 2. High toxicity is used to describe materials with an NFPA rating of 3. Extreme toxicity is used to describe materials with an NFPA rating of 4.

[2] NA denotes materials that do not meet the criteria for any hazard class defined in the 1997 Uniform Fire Code.

Vehicle and Equipment List

a. Construction

Construction materials such as concrete, pipe, wire and cable, fuels, reinforcing steel, and small tools and consumables will be delivered to the site by truck. Initial grading work will include the use of excavators, graders, dump trucks, and end loaders, in addition to the support pickups, water trucks, and cranes. It is anticipated that roughly 20 pieces of this large equipment will be on-site for the first year of construction related to rough grading. As the project moves into the next stages of civil work after the first couple of months, equipment for foundations and road construction will be brought in, including paving machines, trenching machines, concrete mixers and pumps, additional excavators for foundation drilling, tractors, and additional support vehicles. Based on similar projects, this type of work will continue into month 30 of the project as the field is built out.

Field component construction or solar collector assembly (SCA) is largely on-site shop work, where the assembled collector assemblies are driven into the field and mounted to pre-installed pylons. Final field assembly involves small cranes, tractors, welding machines, and forklifts. At any given time, there will be 8 to 12 crews working the site, each with roughly 8 additional vehicles.

Power block construction will begin almost immediately, utilizing additional trenching machines, compactors, concrete trucks and pumpers, vibrators, forklifts, boom trucks, and larger cranes. The specific equipment in-use is more variable as the individual foundations and components are erected. This includes the steam turbine generator, condenser , HTF vessels, pumps, and buildings. Later work in the power block area is mostly piping and wiring, requiring minimal large equipment. Over the course the 20-month work process in the power block area, an average of 6 to 8 incremental pieces of construction equipment are utilized. The only pieces of equipment requiring heavy haul (oversize) transport are the steam turbine generator components and the main transformer. These represent an expected total of 6 deliveries.

b. Operation & Maintenance

No heavy equipment, as needed in construction, will be used during normal plant operation. Operation and maintenance vehicles include large trucks for on-site welding, re-fueling, lubricating, and watering (mirror washing). In addition, flatbed trucks, dump trucks, and ¾-ton pick-up trucks are typical on-site vehicles operated daily. Large heavy haul transport equipment will be brought to site approximately every 10-15 years for major plant maintenance and equipment repair.

Grading and Drainage for the site

The Nextlight Primm Solar Project will be located about 3 miles southeast of the community of Primm NE, and about 42 miles south of downtown Las Vegas, Nevada. The site is bounded by the California-Nevada State Line on the southwest, undeveloped lands to the south, to the east and to the north on approximately 4,500 acres (project boundary within Clark County, NE). Interstate Highway 15 and UPRR are located just west of the proposed site.

Based on the USGS maps and Google Earth, the site is located downstream of a dry wash coming down from the mountains to the east (actual peaking flow unknown at present time). The proposed grading improvements will realign the dry washes to follow the southern and northern property boundaries by constructing drainage channels and releasing drainage flows to the north and to the west of the proposed project. The outlets of these channels will daylight and flare to the existing ground.

The site preparation for the project will required a positive natural terrain slope of about 1.5% (existing slope varies from 1.0% to 1.5% from east to west). Grading of the site will need to conform at its best to the natural ground in order to avoid and minimize earthwork. A series of internal swales may be necessary in order to drain the site. Although terracing was considered for the site, the natural grade will allow for a single level across the site with a 1.5% grade. It is estimated that the entire area of the site within the fence line will be graded.

Soil stabilization and erosion control after the construction of the channels may be accomplished by lining and growing native vegetation on the bottom and shoulders of the channels.

Concrete Demand

Altogether the project will need approximately 48,400 cubic yards of concrete. The site will require concrete to support the load of various structures both in the solar field and within the power block.

In the field, pylons support the SCA structures and controls, and pipe foundations support the supply and return header piping. An estimated 25,400 cubic yards of concrete will be needed in the field. Within the power block there are several structures requiring concrete foundation—all heavy equipment such as step-up transformers, the turbine/generator, building floors, condenser supports, tanks etc. An estimated 23,000 cubic yards of concrete will be needed within the power block.

Project Schedule

a. Construction

Construction of the 250 MW facility, beginning with site preparation and grading through equipment erection to commencement of commercial operation, is expected to last approximately 32 months.

The on-site workforce will consist of laborers, craftsmen, supervisory personnel, support personnel, and construction management personnel. The on-site workforce is expected to reach its peak of approximately 1,000 individuals. There will be an average workforce of approximately 600 construction tradesman, supervisory, support, and construction management personnel on-site during construction.

Construction will generally occur between 7 a.m. and 7 p.m., Monday through Friday. Additional hours may be necessary to make up schedule deficiencies, or to complete critical construction activities. For instance, during hot weather, it may be necessary to start work earlier to avoid pouring concrete during high ambient temperatures. During the startup phase of the project, some activities will continue 24 hours per day, 7 days per week.

b. Operation and Maintenance

The operation and maintenance of a parabolic trough power plant is very similar to conventional steam power plants that cycle on a daily basis and that require approximately 25 fulltime personnel. Parabolic trough power plants typically require the same staffing and labor skills to operate and maintain them 24 hours per day. The Project will need additional personnel because of operation and maintenance requirements to maintain the solar fields. It is estimated that Project Primm will ultimately need about 75 personnel, consisting of plant operators and maintenance technicians working on 12-hour shifts, and administrative personnel working an 8-hour shifts per day. The facility will be operated and maintained 7 days a week, 24 hours per day, year around.

Fire Protection Plan

During construction of the proposed Project, the site will be equipped with a comprehensive, on-site fire suppression and protection system. An emergency action plan will designate responsibilities and actions to be taken in the event of an emergency during construction of the Project.

a. Fire Suppression

The mirrored panels of the SCA may pose increased fire danger when the SCAs are in the stow position. SCAs are stored with the mirrors turned down (stow position) when they are being maintained and repaired. To decrease the risk of fire, all vegetation underneath the SCAs is managed with a BLM-approved herbicide. A pre-emergent herbicide is applied in the spring, and spot foliar applications will be used throughout the year to maintain the area free of vegetation.

b. Fire Protection

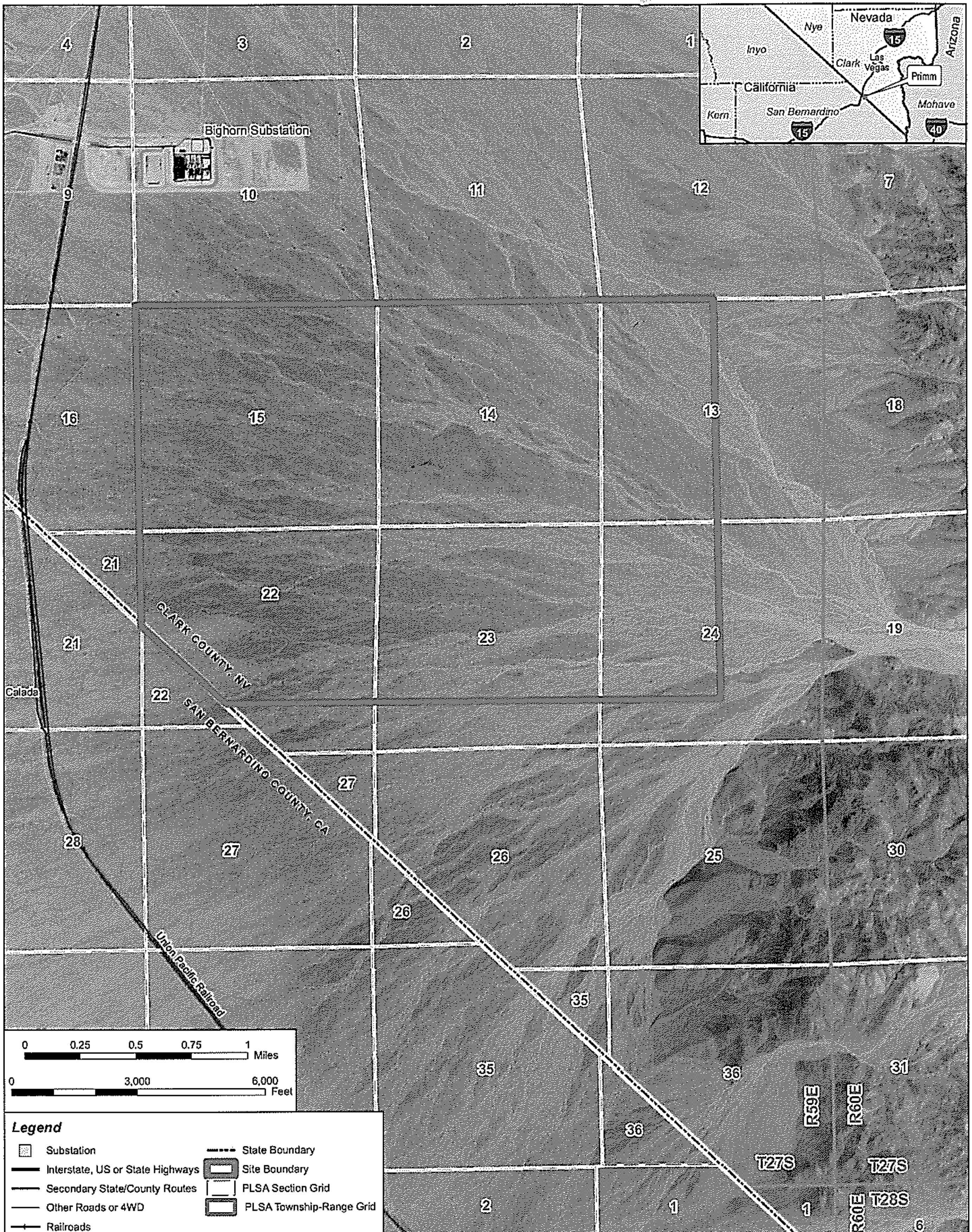
Fire protection measures include sprinkler systems in the control/administration building, warehouse, area under the steam turbine/generator, HTF heater and HTF area, water treatment area, and the auxiliary transformer area. The control room will include a Halon (or equivalent) fire control system that will be inspected semi-annually by state fire officials. The solar fields will have hydrants installed around the perimeter, which will be operated by a pumper-truck equipped with hoses.

Each sprinkler system will be inspected quarterly by a state-licensed fire protection specialist. County and local fire departments will be notified of the fire protection plan and an emergency action plan will be submitted to the fire authority for approval.

Attachment A

Figures

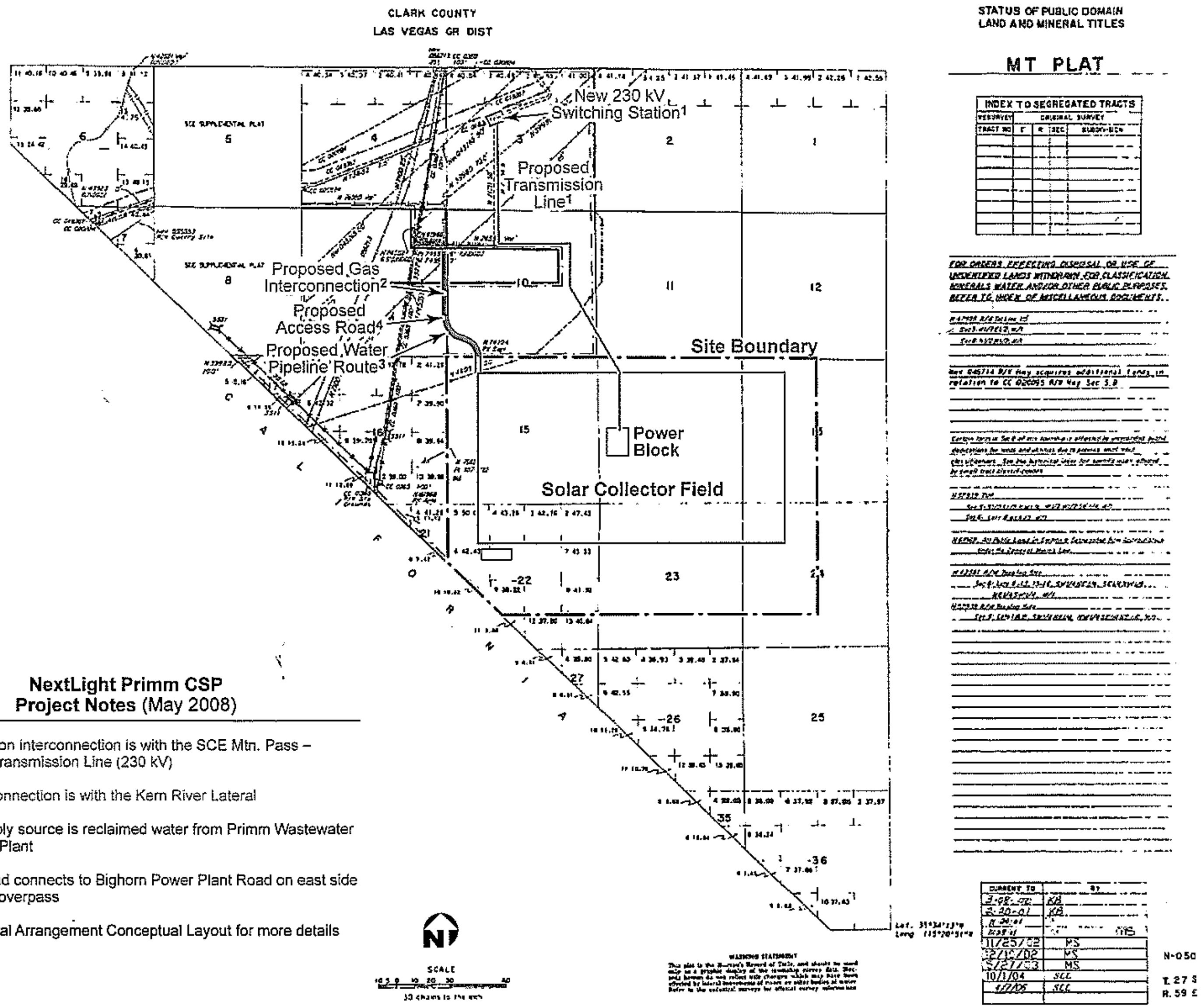
FIGURE - 1



NextLight Renewable Power, LLC	Source: USDA FSA Aerial Photography Field Office; County image mosaic for Clark County, NV (2006-07-13) - 1 meter resolution / the California Geographic Information Systems (GIS) / Clark County GIS Management Office.	AERIAL MAP OF PRIMM SITE	2008

TOWNSHIP 27 SOUTH RANGE 59 EAST OF THE MOUNT DIABLO MERIDIAN, NEVADA

FIGURE - 2



NextLight Primm CSP
Project Notes (May 2008)

1 Transmission interconnection is with the SCE Mtn. Pass – Eldorado Transmission Line (230 kV)

2 Gas interconnection is with the Kern River Lateral

3 Water supply source is reclaimed water from Primm Wastewater Treatment Plant

4 Access road connects to Bighorn Power Plant Road on east side of railroad overpass

See General Arrangement Conceptual Layout for more details

FIGURE - 3

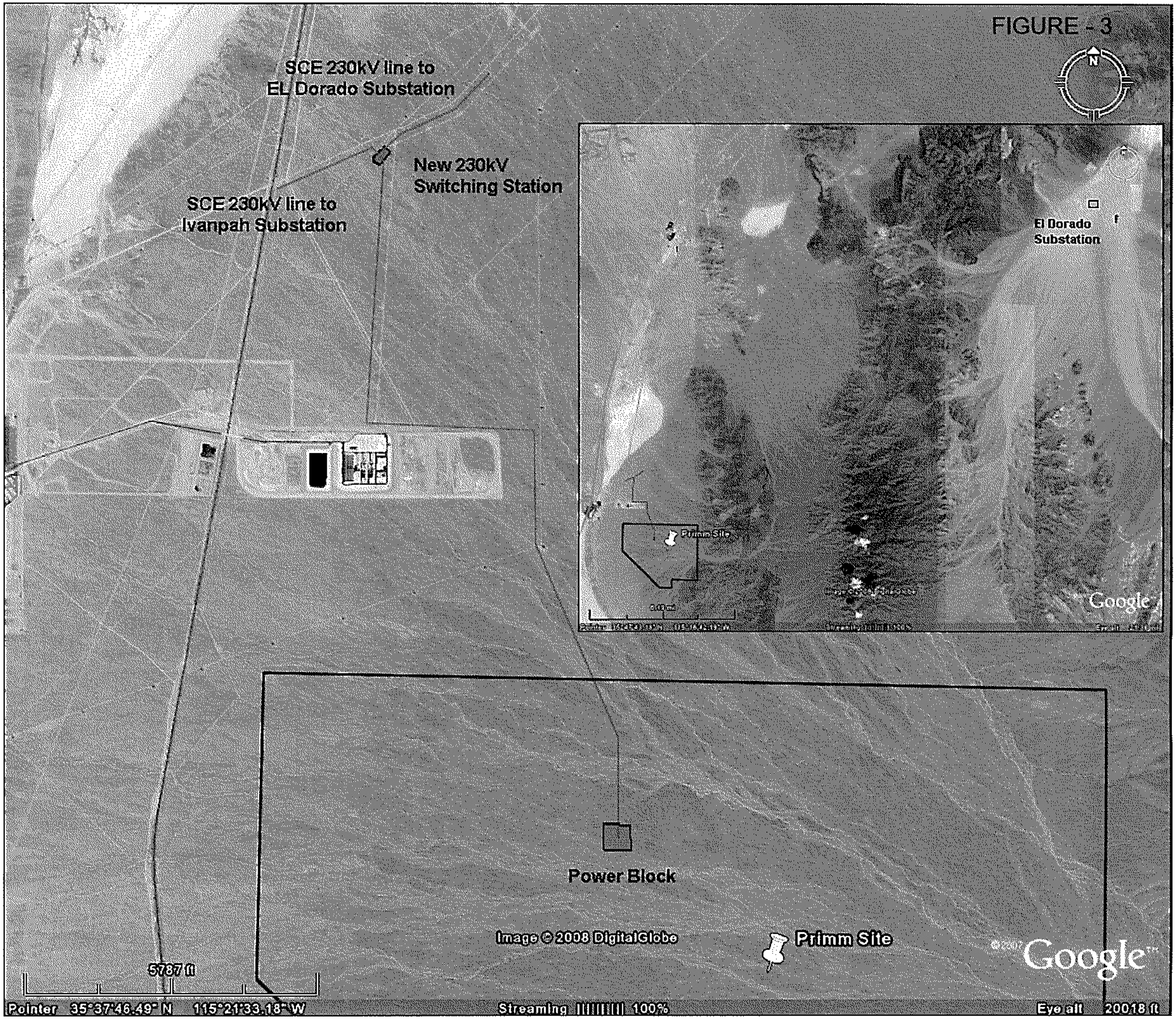
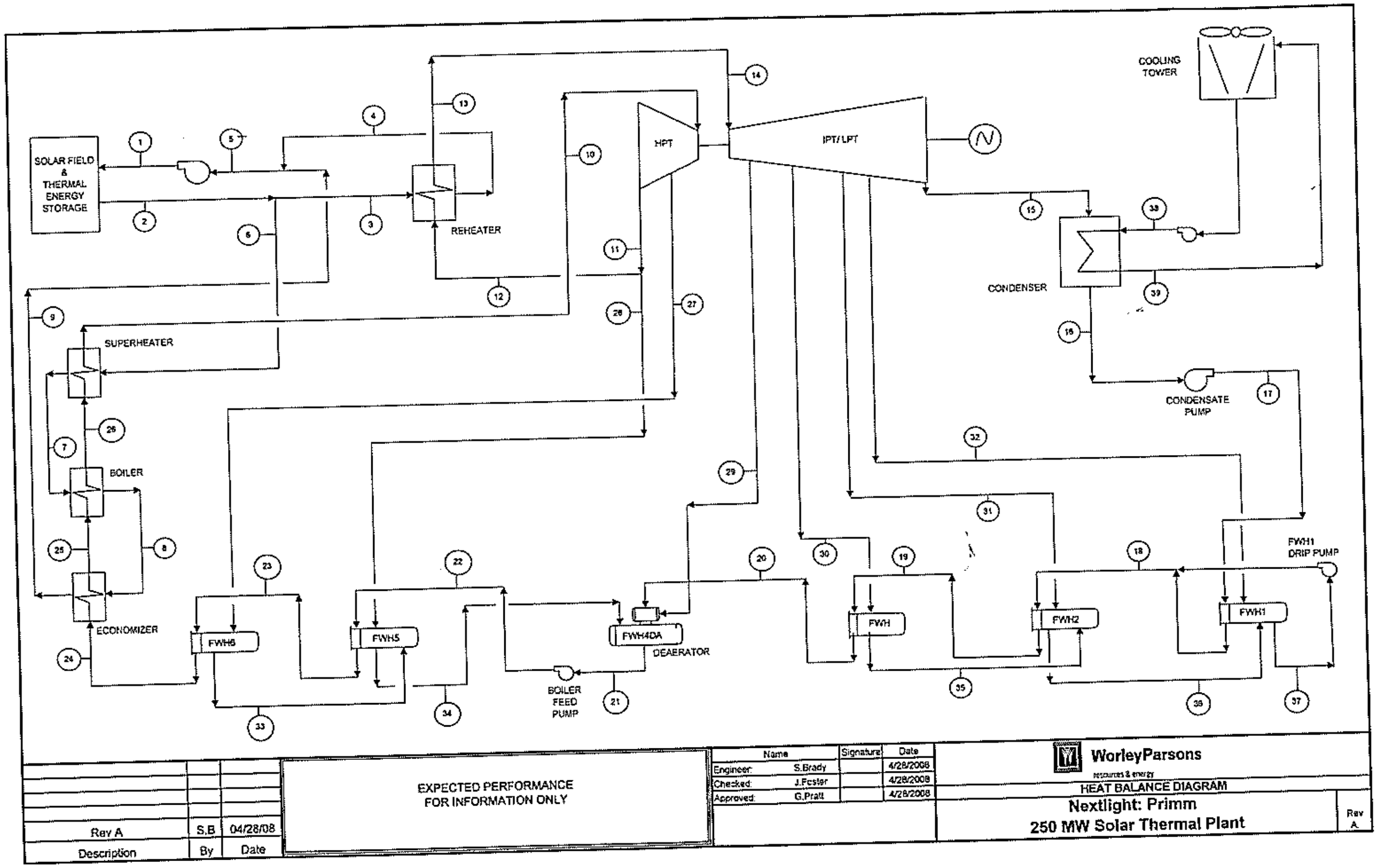
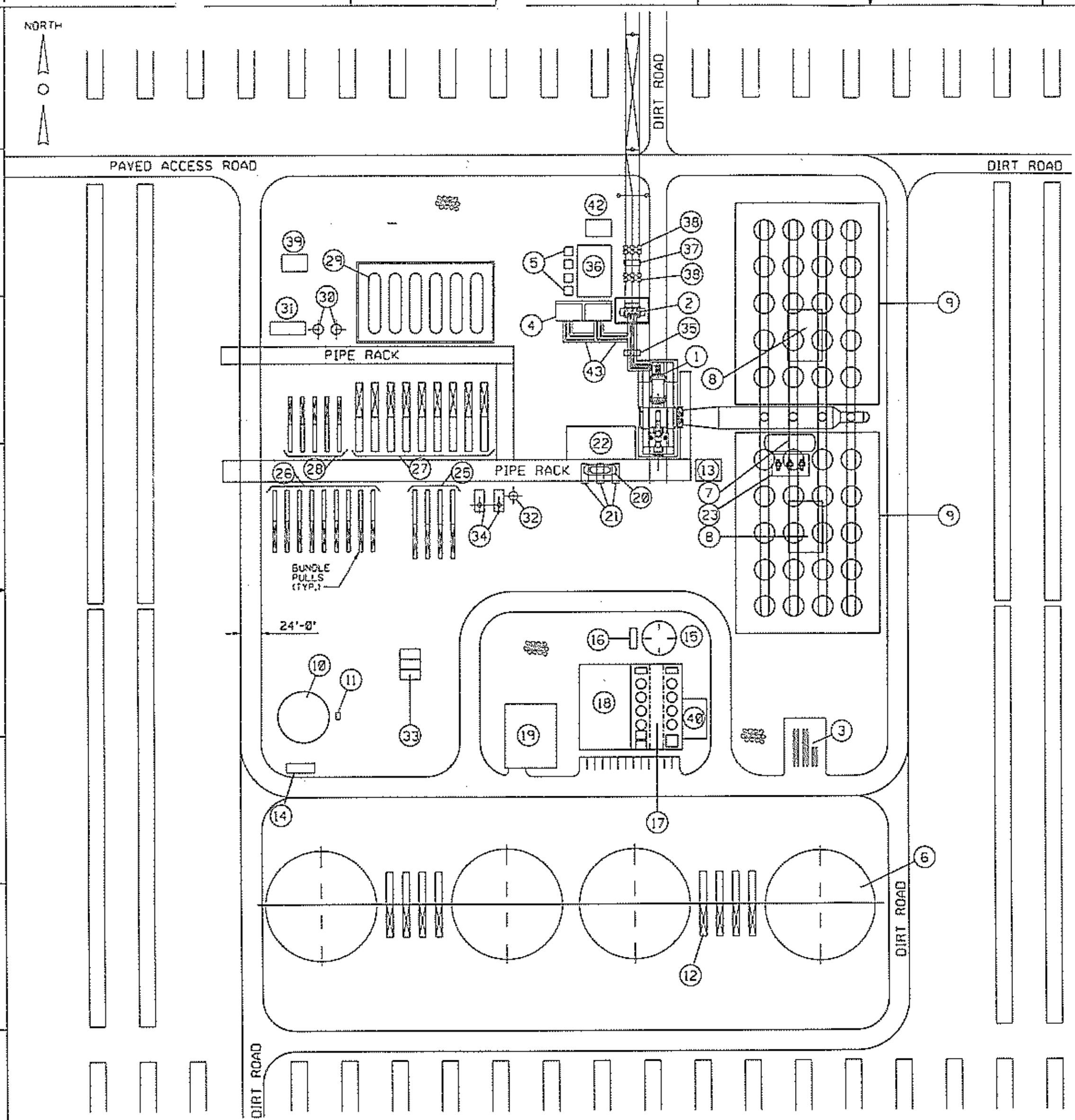

SCE 230kV line to
EL Dorado Substation
New 230kV
Switching Station
SCE 230kV line to
Ivanpah Substation
El Dorado
Substation
Primm Site
Google
Power Block
Image © 2008 DigitalGlobe
Primm Site
©2007 Google™
5787 ft
Pointer 35°37'46.49" N 115°21'33.18" W
Streaming ||||||||| 100%
Eye alt 20018 ft

FIGURE - 4F



SOLAR FIELD & THERMAL ENERGY STORAGE
REHEATER
HPT
IPT / LPT
COOLING TOWER
CONDENSER
CONDENSATE PUMP
SUPERHEATER
BOILER
ECONOMIZER
FWH6
FWH5
FWH4DA
DEAERATOR
BOILER FEED PUMP
FWH
FWH2
FWH1
FWH1 DRIP PUMP
Rev A
S.B
04/28/08
Description
By
Date
EXPECTED PERFORMANCE
FOR INFORMATION ONLY
Name
Signature
Date
Engineer: S.Brady 4/28/2008
Checked: J.Foster 4/28/2008
Approved: G.Pratt 4/28/2008
WorleyParsons
resources & energy
HEAT BALANCE DIAGRAM
Nextlight: Primm
250 MW Solar Thermal Plant
Rev
A

FIGURE - 4E



EQUIPMENT DESCRIPTIONS

1 STEAM TURBINE/GENERATOR
2 GSU TRANSFORMER
3 GAS STORAGE AREA (NITROGEN, HYDROGEN AND CO2)
4 UNIT AUXILIARY TRANSFORMERS
5 SUS TRANSFORMERS
6 THERMAL ENERGY STORAGE TANK(4)
7 CONDENSATE STORAGE TANK
8 ACC ELECTRICAL BUILDING
9 ACC
10 RAW & FIRE WATER STORAGE TANK
11 PROCESS WATER PUMP SKID
12 THERMAL ENERGY STORAGE HEAT EXCHANGER (2)
13 AUXILLIARY SYSTEM COOLER
14 FIREWATER PUMP HOUSE
15 DEMIN WATER STORAGE TANK (150,000 GALLONS)
16 DEMIN WATER PUMP SKID
17 WATER TREATMENT BUILDING
18 CONTROL ROOM/ADMIN BUILDING
19 WAREHOUSE
20 DEAERATOR/STORAGE TANK
21 FEEDWATER PUMPS
22 FEEDWATER HEATERS (AREA)
23 CONDENSATE PUMPS
24 SODIUM HYPOCHLORITE
25 ECONOMIZERS (4)
26 REHEATERS (9)
27 EVAPORATORS (9)
28 SUPERHEATERS (5)
29 EXPANSION STORAGE TANKS (6)
30 HTF FREEZE PROTECTION HEATERS
31 HTF CIRCULATING PUMPS (6)
32 STEAM BLOWDOWN TANK
33 WET SURFACE AIR COOLER
34 START-UP BOILERS (20,000 LB/HR)
35 GENERATOR CIRCUIT BREAKER
36 MAIN ELECTRICAL BUILDING
37 MAIN CIRCUIT BREAKER
38 MAIN DISCONNECT
39 HTF PUMP PDC
40 CHEMICAL & HAZARDOUS MATERIAL STORAGE
41 NOT USED
42 SCE STEP-DOWN TRANSFORMER (IF REQ'D)
43 ISOLATED PHASE BUS DUCT

LEGEND:
GRAVEL
ASPHALT

Scale: 60 0 60 120 180

REV	DATE	DESCRIPTION					
A		ISSUED FOR POD SUBMITTAL	KV	DR			

DRAWN BY: KV
CHECKED BY: DR
ENGINEER/TECH SPECIALIST: DR
PROJECT MANAGER: GRB

Zero Harm

WorleyParsons
resources & energy

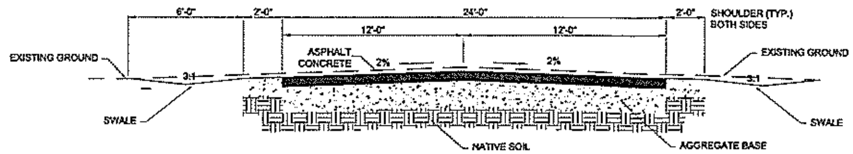
NEXTLIGHT
250 MW CSP - PRIMM

POWER BLOCK
GENERAL ARRANGEMENT
CONCEPTUAL LAYOUT

SCALE: 1" = 60'

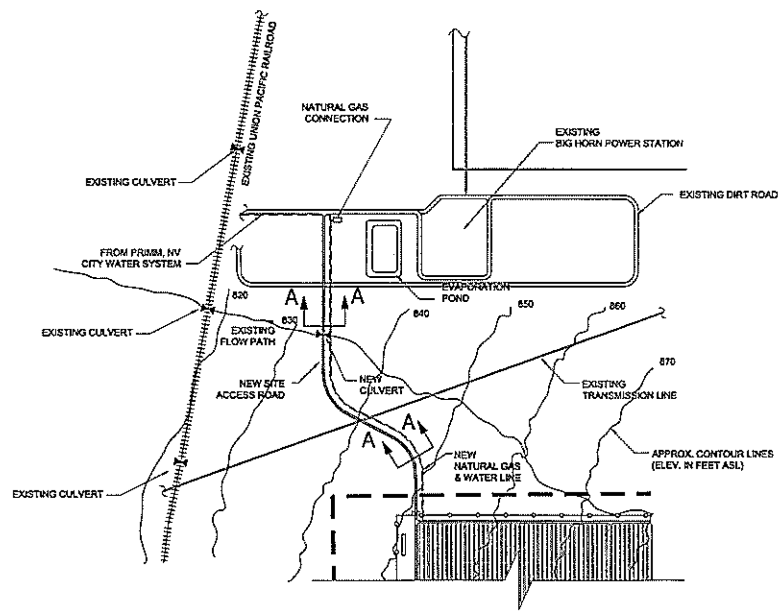
NXTL-0-SK-111-001-104 | REV A

FIGURE - 4D



A ACCESS ROAD SECTION (TYP.)

NOT TO SCALE



A | ISSUED FOR POD SUBMITTAL

DRAWN BY: K. WALDRON

CHECKED BY: B. ROSS

S. RICHARDS

PROJECT MANAGER: G. BAXTER

Zero Harm

WorleyParsons
resources & energy

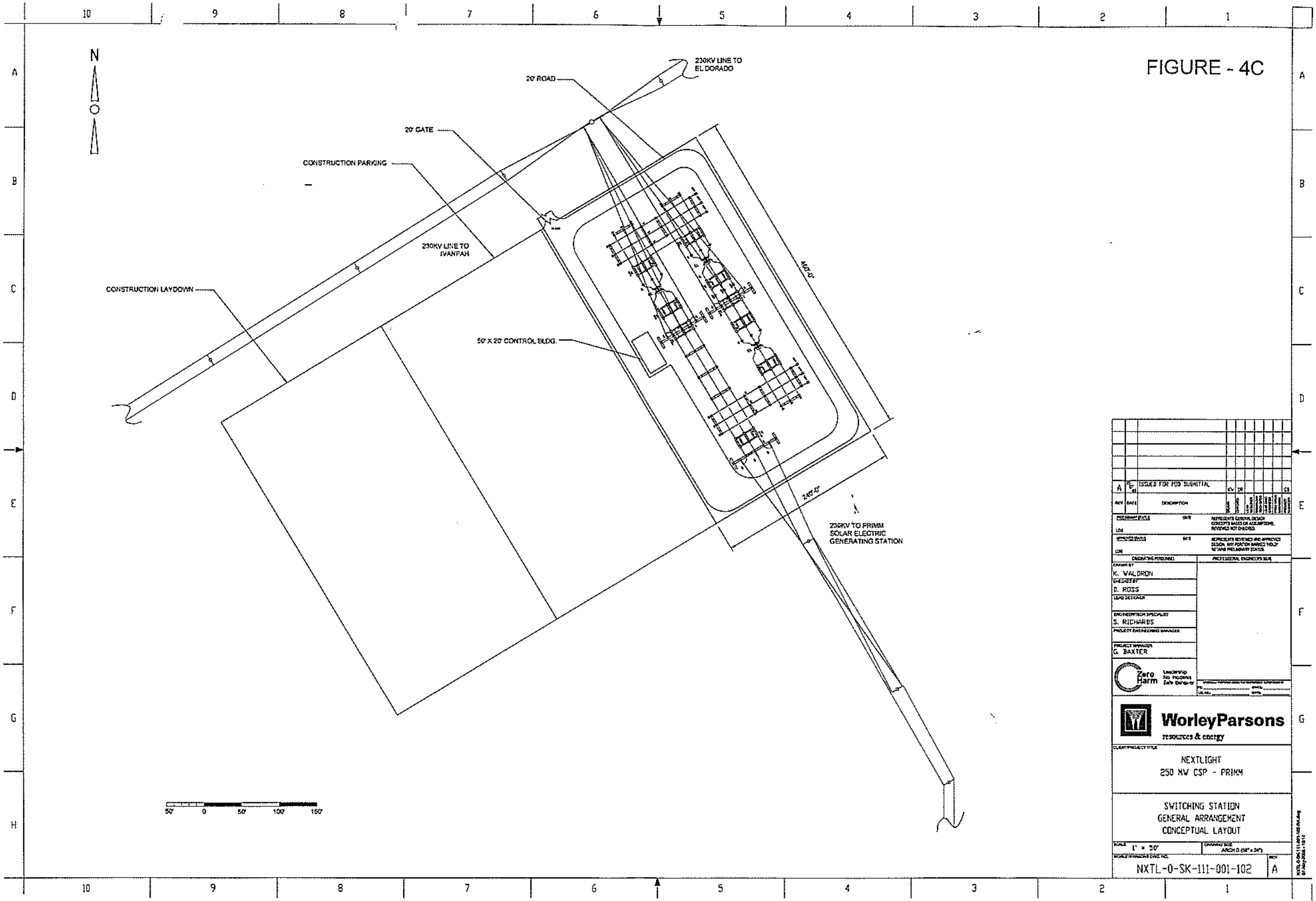
NEXTLIGHT
250 MW CSP - PRIMM

ACCESS ROAD DETAILS
GENERAL ARRANGEMENT
CONCEPTUAL LAYOUT

SCALE 1" = 700'

NXTL-0-SK-111-001-105 | REV A

FIGURE - 4C



N
230KV LINE TO
EL DORADO
20' ROAD
20' GATE
CONSTRUCTION PARKING
230KV LINE TO
IVANPAH
CONSTRUCTION LAYDOWN
50' X 20' CONTROL BLDG.
460'-0"
240'-0"
230KV TO PRIMM
SOLAR ELECTRIC
GENERATING STATION
50' 0 50' 100' 150'
A ISSUED FOR POD SUBMITTAL
K. WALDRON
D. ROSS
S. RICHARDS
G. BAXTER
Zero Harm
WorleyParsons
resources & energy
NEXTLIGHT
250 MW CSP - PRIMM
SWITCHING STATION
GENERAL ARRANGEMENT
CONCEPTUAL LAYOUT
1" = 50'
NXTL-0-SK-111-001-102
A

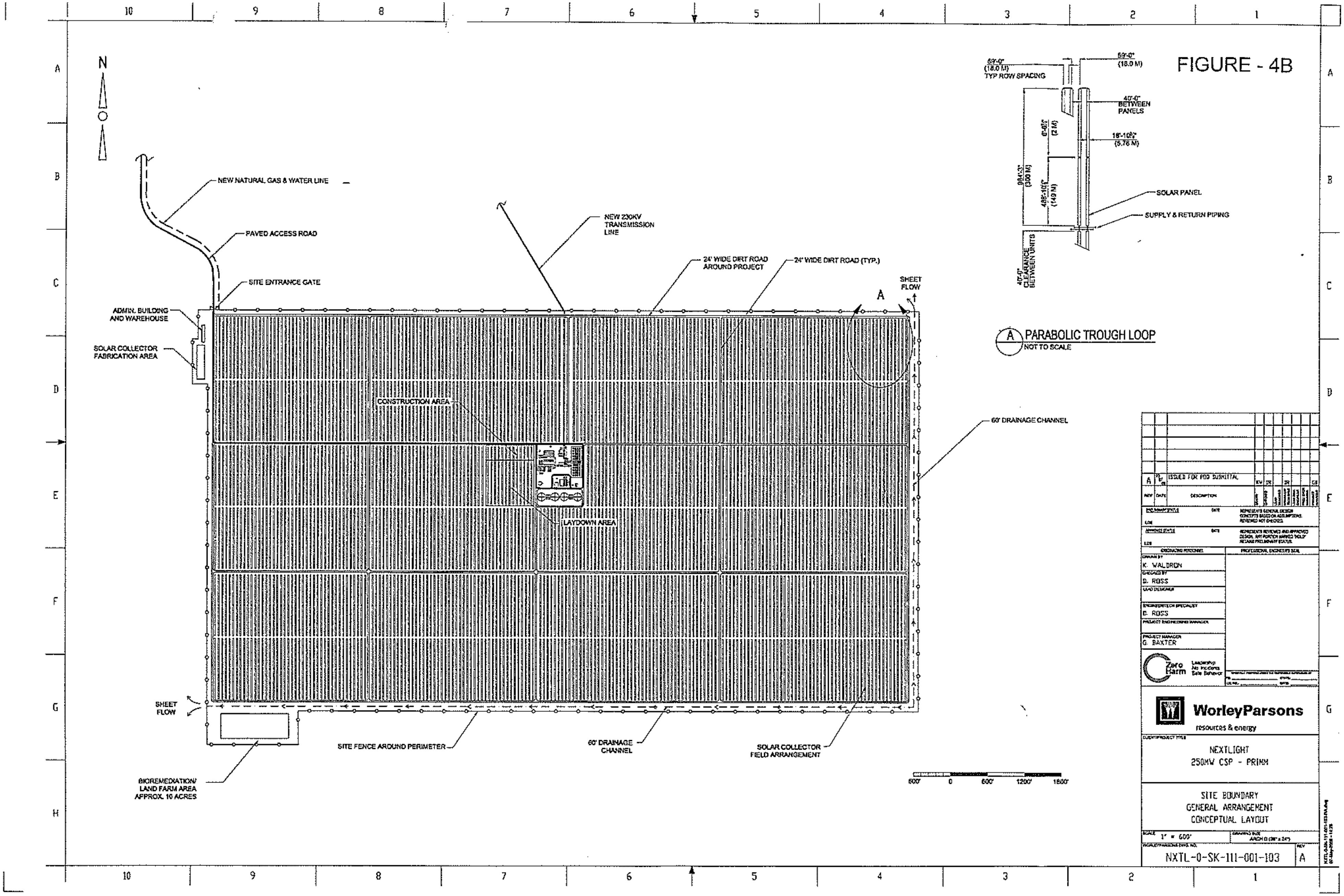
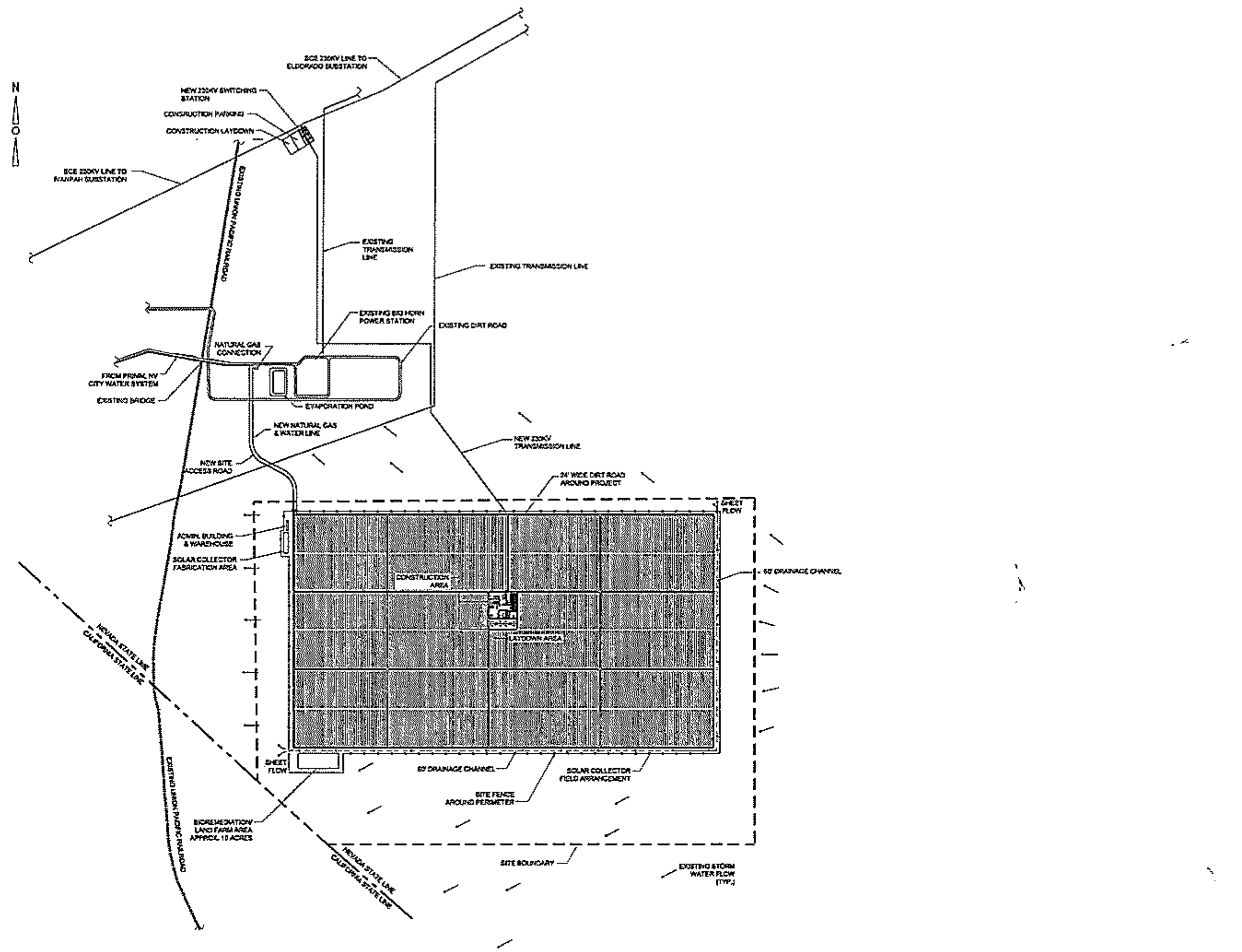


FIGURE - 4B
N
NEW NATURAL GAS & WATER LINE
PAVED ACCESS ROAD
SITE ENTRANCE GATE
ADMIN. BUILDING AND WAREHOUSE
SOLAR COLLECTOR FABRICATION AREA
NEW 230KV TRANSMISSION LINE
24' WIDE DIRT ROAD AROUND PROJECT
24' WIDE DIRT ROAD (TYP.)
SHEET FLOW
A
CONSTRUCTION AREA
LAYDOWN AREA
60' DRAINAGE CHANNEL
SITE FENCE AROUND PERIMETER
60' DRAINAGE CHANNEL
SOLAR COLLECTOR FIELD ARRANGEMENT
SHEET FLOW
BIOREMEDIATION/ LAND FARM AREA APPROX. 10 ACRES
59'-0" (18.0 M) TYP ROW SPACING
59'-0" (18.0 M)
40'-0" BETWEEN PANELS
18'-10⅞" (5.76 M)
6'-6¾" (2 M)
984'-3" (300 M)
488'-10⅞" (149 M)
SOLAR PANEL
SUPPLY & RETURN PIPING
40'-0" CLEARANCE BETWEEN UNITS
A PARABOLIC TROUGH LOOP
NOT TO SCALE
600' 0 600' 1200' 1800'
A ISSUED FOR POD SUBMITTAL
K. WALDRON
D. ROSS
D. ROSS
G. BAXTER
Zero Harm
Leadership No Incidents Safe Behavior
WorleyParsons
resources & energy
NEXTLIGHT
250MW CSP - PRIMM
SITE BOUNDARY
GENERAL ARRANGEMENT
CONCEPTUAL LAYOUT
1" = 600'
NXTL-0-SK-111-001-103
A

FIGURE - 4A



REV	DATE	DESCRIPTION					
C		ISSUED FOR PID SUBMITTAL	KV	DR	DR		GB
B		REVIEW COMMENTS	KV	JF	RA		GB
A		ISSUE FOR REVIEW	KV	JF	RA		GB

DRAWN BY: K. WALDRON

ENGINEER/TECH SPECIALIST: R. ANTOLINE

PROJECT MANAGER: G. BAXTER

Zero Harm — Leadership, No Incidents, Safe Behavior

WorleyParsons
resources & energy

NEXTLIGHT
250 MW CSP - PRIMM

GENERAL ARRANGEMENT
CONCEPTUAL LAYOUT

SCALE: 1" = 12,000'

DRAWING SIZE: ARCH D (36" x 24")

NXTL-0-SK-111-001-101 REV C