

**CALIFORNIA ENERGY COMMISSION**1516 NINTH STREET  
SACRAMENTO, CA 95814-5512

December 19, 2011

Jeff Orr  
 Financial Secretary  
 United Association Local 525-Plumbers, Pipefitters,  
 and HVAC Refrigeration Technicians  
 760 North Lamb Blvd.  
 Las Vegas, NV 89110

<b>DOCKET</b>	
<b>11-AFC-2</b>	
DATE	DEC 19 2011
RECD.	DEC 20 2011

RE: Construction and Operation Workforce for the Proposed Hidden Hills Solar Electric Generating System (HHSEGS) Project (11-AFC-2)

Dear Mr. Orr:

Hidden Hills Solar I, LLC and Hidden Hills Solar II, LLC (the applicant), are seeking a license from the California Energy Commission to construct and operate a solar power generation facility. The Hidden Hills Solar Electric Generating System (HHSEGS or proposed project) is proposed on approximately 3,277 acres (5.12 square miles) of privately owned land in Inyo County, California, along the California-Nevada border, approximately 18 miles south of the town of Pahrump, Nevada.

HHSEGS proposes two solar fields and associated facilities: the northern solar plant (Solar Plant 1) and the southern solar plant (Solar Plant 2). Each solar plant would generate 270 megawatts (MW) gross (250 MW net), for a total net output of 500 MW. The project applicant's entire Application For Certification (AFC) is available at the Energy Commission's website: < <http://www.energy.ca.gov/sitingcases/hiddenhills/documents/applicant/afc/>>. Section 5.10 Socioeconomics would be the most pertinent section to review.

As part of the environmental review and licensing process for the proposed project, Energy Commission staff evaluates the potential for the construction and operation workforce to impact population, housing, and public services (e.g., police protection and schools) in the area where the project is proposed. Information on the construction and operation workforce in the region is extremely useful in the analysis of potential impacts to these resources. Based on information in the AFC, the available labor by skill in Inyo County and the Las Vegas-Paradise Metropolitan Statistical Area forecasts an overall decline in the availability of labor over a ten-year period (2008 to 2018).

Construction of the power generating facility, from site preparation and grading to commercial operation, would take approximately 29 months. If approved, construction would begin the third quarter of 2012 and conclude the second quarter of 2015. The two solar plants would be constructed concurrently with a planned three-month delay between their start dates. See

Table 2.2-2 in the Project Description Section of the AFC for a list of the project's major schedule milestones. The number of workers per day ranges from 35 in month 29 to 1,033 in month 14. The highest numbers are predicted during construction months 13 through 16. The peak number of workers on-site is during month 14, with a projected 1,033 workers. Overall, there is a 1-year period where the number of workers is within approximately 20 percent of the peak. The applicant estimates 5 percent of the construction workforce needed for the project would come from Inyo County (CA), 20 percent would come from Nye County (NV), and 75 percent would come from Clark County (NV). Based on those estimates, during the peak construction month (month 14) approximately 52 workers would come from Inyo County, 207 workers would come from Nye County, and 775 workers would come from Clark County.

An operations workforce of 120 workers would be needed for the project. The applicant estimates that most of the operation workforce would come from Las Vegas in Clark County as well as from the rural areas in Inyo County. Some of the operation workforce would come from Pahrump in Nye County.

Based on the 1982 Electric Power Research Institute's (EPRI's) report, *Socioeconomic Impacts of Power Plants*, construction workers will commute as much as two hours to construction sites from their homes and one hour during operations, rather than relocate. To update information on the commuting habits of construction workers, I have prepared a list of questions for your consideration and response.

This information will be useful to me in evaluating the potential effects of the proposed HHSEGS project on population, housing, and public services:

1. Based on your experience and knowledge of the labor workforce in the Las Vegas and Pahrump areas, the project's construction and operation workforce needs, and the location and type of the proposed project, where would the construction and operation workforce be likely to come from?
2. The applicant has estimated 20 percent of the workforce (both construction and operations) would come from Nye County and 75 percent would come from Clark County. Is this an accurate assumption?
3. Considering there is little to no lodging near the project site in Inyo County, do you anticipate workers would commute from their residence on a daily basis or seek lodging closer to the project?

The available lodging options I have found include the following: Tecopa and Shoshone have approximately 243 recreational vehicle (RV) parking spaces, 50 rooms, 4 cabins, and a 13-bed budget hostel; lodging in Pahrump includes 766 RV parking spaces and 314 rooms; lodging in Las Vegas includes 148,935 rooms and in the downtown and strip area of Las Vegas there are 805 RV parking spaces.

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Please provide your responses to the above questions and any comments you may have regarding the construction and operation labor for the proposed project by January 19, 2012. Send your responses to my attention. Thank you in advance for your time and assistance.

Sincerely,

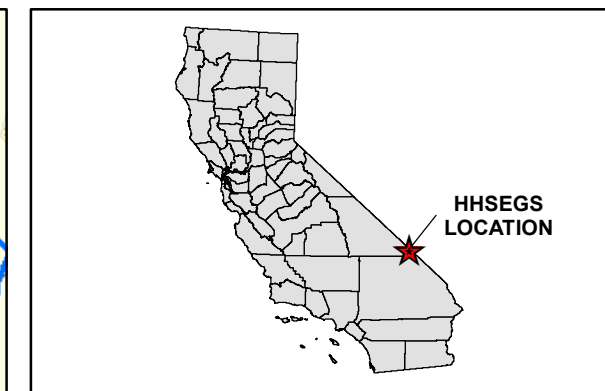
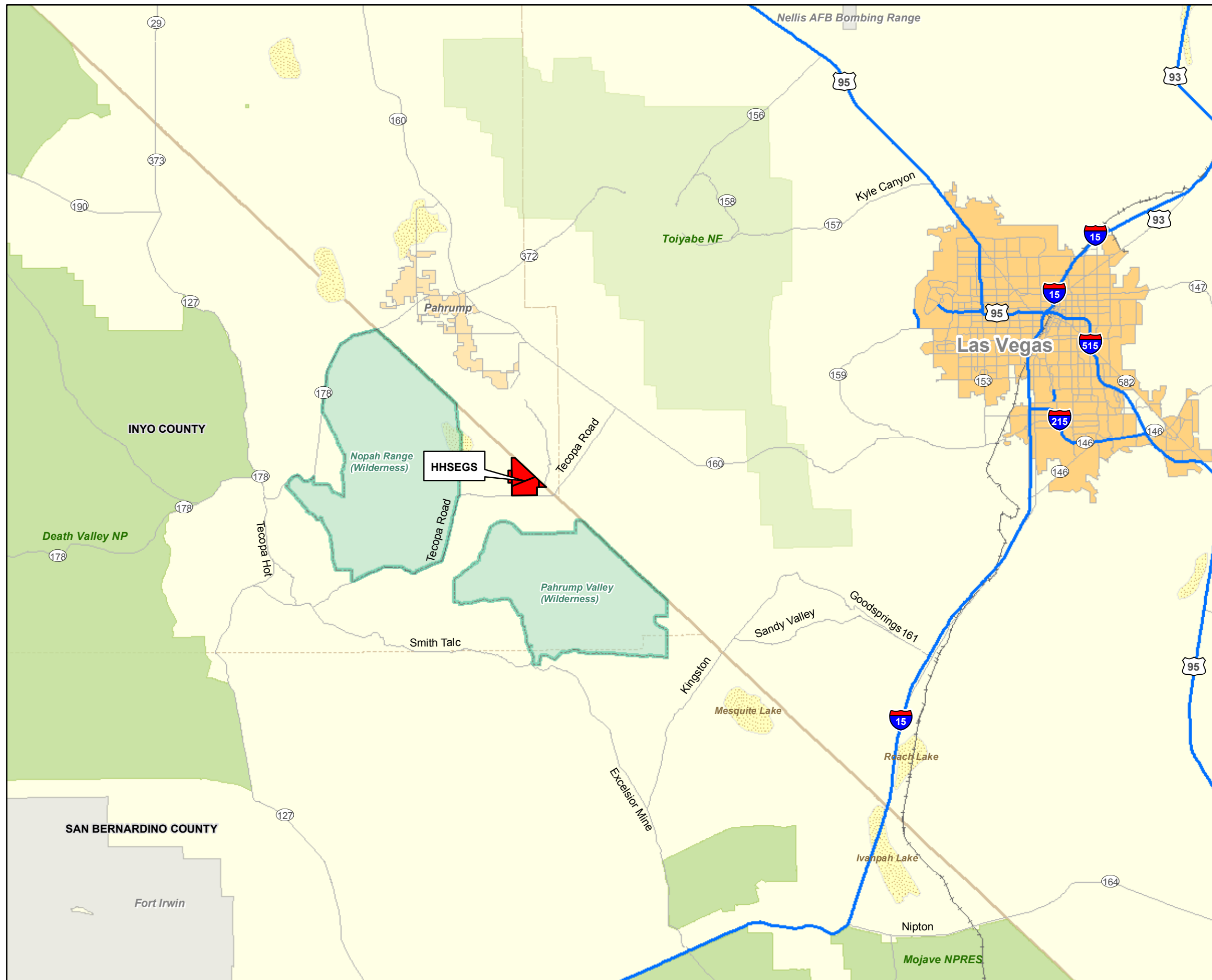
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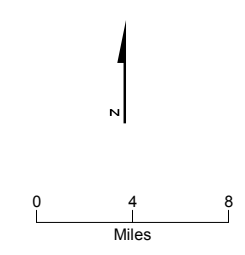
Enclosure:

Map showing the approximate location of the project site (from the AFC)  
Construction and operation workforce schedule

cc. Mike Monasmith, California Energy Commission Project Manager  
Dick Ratliff, Staff Counsel  
Amanda Stennick, Planner III/Supervisor



- LEGEND**
- Major Freeways
  - Major Road
  - State Boundary
  - - - County Boundary
  - + Major Railroad Lines
  - National Parks/ Forests
  - Military Installation
  - Dry Lake
  - Urban Areas
  - Wilderness Area
  - HHSEGS Boundary



**FIGURE 2.1-1**  
**Vicinity Map**  
 Hidden Hills Solar Electric Generating System

TABLE 5.10-16R1  
Construction Personnel by Month

Month	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	TOTAL
<b>Craft/Job Category</b>																															
<b>Craft-Day Shift</b>																															
Boilermaker	0	0	0	0	0	0	0	0	38	72	120	202	222	223	224	234	218	163	154	130	130	114	42	29	12	10	8	6	0	0	2,351
Carpenters	0	6	8	8	20	20	20	20	19	16	16	14	16	15	14	15	15	15	10	4	4	4	8	8	8	8	8	8	4	4	335
Cement Finisher	0	0	0	8	40	41	43	50	52	52	52	54	55	55	55	55	55	52	52	48	45	45	20	0	0	0	0	0	0	0	929
Electrician	0	16	35	39	163	219	230	239	233	238	217	195	197	199	199	209	215	219	216	208	186	183	63	62	50	40	24	10	10	4	4,118
Equipment Operator	0	8	18	20	26	26	26	24	19	15	14	14	10	8	17	18	18	16	16	15	13	13	6	5	4	4	2	1	1	0	377
Instrument Tech	0	0	0	0	0	8	15	17	18	18	18	19	18	16	20	21	19	19	19	17	15	13	16	12	10	10	3	2	1	1	345
Insulation Installer	0	0	0	0	8	16	30	32	32	33	33	34	35	34	35	37	36	34	34	32	28	28	11	18	18	5	4	2	1	1	611
Iron Worker	0	2	3	5	32	28	28	31	24	8	8	9	6	2	2	2	2	2	9	7	5	4	10	8	7	6	3	0	0	0	253
Laborer	36	28	24	24	30	24	24	20	19	14	14	12	10	8	10	10	10	10	10	10	13	12	5	4	4	4	4	4	4	4	405
Millwright	0	0	0	0	0	0	0	0	0	0	6	10	8	6	4	14	14	12	10	10	5	2	5	4	4	2	2	1	0	0	119
Painter	0	0	0	1	3	3	3	3	3	3	3	4	4	4	4	4	4	4	3	3	3	3	1	1	2	2	0	0	0	0	68
Pipefitter	0	0	0	34	232	238	269	287	287	285	253	217	223	223	226	232	232	237	243	239	217	211	82	74	62	40	30	10	9	6	4,698
Plumbers	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	0	0	0	0	0	0	0	0	33
<b>Craft-Day Shift Subtotal</b>	<b>36</b>	<b>60</b>	<b>88</b>	<b>139</b>	<b>556</b>	<b>625</b>	<b>690</b>	<b>725</b>	<b>746</b>	<b>756</b>	<b>756</b>	<b>786</b>	<b>806</b>	<b>795</b>	<b>812</b>	<b>853</b>	<b>840</b>	<b>785</b>	<b>778</b>	<b>724</b>	<b>665</b>	<b>633</b>	<b>269</b>	<b>225</b>	<b>181</b>	<b>131</b>	<b>88</b>	<b>44</b>	<b>30</b>	<b>20</b>	<b>14,642</b>
<b>Craft-Swing Shift (Heliostat Assembly)</b>																															
Carpenters	0	0	0	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	72
Electrician	0	0	0	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	0	0	0	0	0	0	0	0	144
Equipment Operator	0	0	0	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	72
Instrument Tech	0	0	0	0	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	0	0	0	0	0	0	0	0	216
Iron Worker	0	0	0	0	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	0	0	0	0	0	0	0	0	396
Millwright	0	0	0	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	0	0	0	0	0	0	0	0	180
<b>Craft-Swing Shift Subtotal</b>					<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,080</b>
<b>Total Craft</b>	<b>36</b>	<b>60</b>	<b>88</b>	<b>139</b>	<b>616</b>	<b>685</b>	<b>750</b>	<b>785</b>	<b>806</b>	<b>816</b>	<b>816</b>	<b>846</b>	<b>866</b>	<b>855</b>	<b>872</b>	<b>913</b>	<b>900</b>	<b>845</b>	<b>838</b>	<b>784</b>	<b>725</b>	<b>693</b>	<b>269</b>	<b>225</b>	<b>181</b>	<b>131</b>	<b>88</b>	<b>44</b>	<b>30</b>	<b>20</b>	<b>15,722</b>
Non-craft <sup>1</sup>	4	15	19	25	27	35	35	35	35	36	38	38	38	41	41	41	41	41	41	40	39	38	37	36	33	30	27	20	8	5	939
Owner & Others	4	15	25	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	35	30	25	15	10	5	1,004
Compliance Support	80	80	30	30	30	30	30	30	30	30	30	30	30	80	80	30	30	20	20	10	10	10	5	5	5	5	5	5	5	5	820
Transmission Line	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	37	0	0	0	0	0	0	0	0	0	0	0	74
Gas Line	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	30
Linear Compliance Support	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	0	0	0	0	0	0	0	0	0	0	0	9
<b>SUBTOTAL SITE</b>	<b>124</b>	<b>170</b>	<b>162</b>	<b>234</b>	<b>713</b>	<b>790</b>	<b>855</b>	<b>890</b>	<b>911</b>	<b>922</b>	<b>924</b>	<b>954</b>	<b>974</b>	<b>1,016</b>	<b>1,033</b>	<b>1,024</b>	<b>1,011</b>	<b>986</b>	<b>1,012</b>	<b>874</b>	<b>814</b>	<b>781</b>	<b>351</b>	<b>306</b>	<b>254</b>	<b>196</b>	<b>145</b>	<b>84</b>	<b>53</b>	<b>35</b>	<b>18,598</b>
<b>Offsite Linears<sup>2</sup></b>																															
Transmission Line	0	0	0	0	0	0	0	0	0	0	0	3	3	3	15	36	39	0	0	29	10	10	6	0	5	0	0	0	0	159	
Gas Line	0	0	0	0	0	0	0	0	0	0	0	2	2	21	21	21	21	21	0	0	0	0	0	0	0	0	0	0	0	0	109
Linear Compliance Support	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6	6	3	0	4	4	4	4	0	2	0	0	0	0	0	45
<b>TOTAL WORKFORCE</b>	<b>124</b>	<b>170</b>	<b>162</b>	<b>234</b>	<b>713</b>	<b>790</b>	<b>855</b>	<b>890</b>	<b>911</b>	<b>922</b>	<b>924</b>	<b>959</b>	<b>979</b>	<b>1,046</b>	<b>1,075</b>	<b>1,087</b>	<b>1,077</b>	<b>1,010</b>	<b>1,012</b>	<b>907</b>	<b>828</b>	<b>795</b>	<b>361</b>	<b>306</b>	<b>261</b>	<b>196</b>	<b>145</b>	<b>84</b>	<b>53</b>	<b>35</b>	<b>18,911</b>

Notes: <sup>1</sup> Non-craft workers are the non-union superintendents and construction personnel onsite.  
<sup>2</sup> Workforce for linears was included for use in determining cumulative impacts.

economies of Inyo, Clark, and Nye counties. Assuming that 5 percent of the construction workforce will reside in Inyo County, it is expected that approximately ~~\$8.0~~ \$8.1 million in payroll will stay in Inyo County. Assuming, that 95 percent of the construction workforce will reside in either Clark or Nye county, it is expected that the remaining ~~\$152~~ \$153 million in estimated construction payroll will remain in these two Nevada counties. These additional funds will cause a temporary beneficial impact by creating the potential for other employment opportunities (indirect and induced employment) for local workers in other service areas, such as transportation and retail.

The following Table DR24-1 shows the job classifications for the operations workforce.

TABLE DR24-1  
HHSEGS Plant Operation Workforce

Department	Personnel	Shift
Operations	42 MWM operators 24 Technicians 6 Support staff	All night shift, 21 per plant 2 shifts, 6 technicians each shift, per plant. 3 per plant, day or night shift?
Warehouse & Maintenance	13 personnel	12-hour night shift for maintenance?
Administration	31 Administration staff 4 Support staff	Day shift
Total	120	

MWM = mirror washing machine