

U.S. Department of the Interior
Bureau of Land Management

Finding of No Significant Impact
DOI-BLM-NV-S000-2015-0002-EA
February 2016

ARES Nevada, LLC's

File Number: N-92514

PREPARING OFFICE

U.S. Department of Interior
Bureau of Land Management
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1 INTRODUCTION

1.1 *Proposed Action Title/Type*

The Proposed Action is to construct, operate, and maintain a Regulation Energy Management (REM) facility to address current and future electrical grid reliability and stability issues, in accordance with Federal Energy Regulatory Commission (FERC) objectives and in conformance with the objectives set forth in the Las Vegas Resource Management Plan (RMP) and Record of Decision approved in October 1998. The proposed facility has been designed to provide environmentally-friendly and sustainable large-scale energy storage in support of promoting electrical grid stability and renewable energy consistency.

1.2 *Applicant/Proponent*

ARES Nevada, LLC is a Santa Barbara, California based company providing a deployable solution for grid-scale energy storage. ARES mission is to enable the electric grid to integrate unprecedented amounts of clean, environmentally responsible, renewable energy while maintaining the reliable electric service necessary to power growth and prosperity.

1.3 *Location of Proposed Action*

ARES proposes to locate this project exclusively on BLM-managed lands in the Carpenter Canyon area, east of Pahrump, in Nye and Clark Counties, Nevada. The alignment of the Proposed Action, including the facilities, maintenance area, and transmission, is contained within Township 20 South, Range 54 East, Sections 34 and 35; Township 20 South, Range 55 East, Sections 22, 27, 28, 31, 32, 33; Township 21 South, Range 54 East, Sections 01, 02, 03, 12; and Township 21 South, Range 55 East, Sections 06 and 07.

The Proposed Action would include 72 acres of permanent and 98 acres of temporary disturbance on BLM lands for a total of 170 acres.

1.4 *Overview of the Proposed Action*

ARES is proposing to construct, operate and maintain a REM facility on BLM managed land in Clark and Nye Counties, Nevada, to assist in transmission system stability and reliability, and electricity supply management on the regional electrical transmission grid. The Proposed Action is a 50 megawatt (MW) gravity based Energy Storage System which utilizes multiple electric locomotives operating on a single steep grade railroad track to store or deliver electric energy into the regional electrical grid -- using electricity from the grid to power the locomotives uphill, returning that electricity to the grid as the locomotives descend with their motors operating as generators. The Proposed Action is designed to balance variable energy demands and renewable energy contributions across an electrical grid system. The Proposed Action does not produce more energy than is introduced into its system; therefore it is not an electrical generation facility.

The Proposed Action includes the following components:

- A rail line corridor which will include an access/maintenance road and an overhead catenary system to connect the locomotives to the electrical system.
- Maintenance and operation facilities, including two buildings and a substation.

- Valley Electric Association (VEA) transmission upgrades, including new transmission lines to connect the REM facility to the existing Gamebird Switch Station, upgrading existing transmission lines directly affected by the project, and removing lines made redundant by the project.
- Expansion of the existing VEA Gamebird Switch Station to accommodate the new system.
- A facilities access road connecting to the existing transmission line maintenance road.

2 CONSISTENCY WITH LAND USE PLANS, LAWS, REGULATIONS, AND POLICIES

The Proposed Action conforms to the Las Vegas RMP and Record of Decision approved in October 1998. Sections that specifically apply to this Project include:

- RW-1-h, Management Direction: “All public land within the planning area, except as stated in RW-1-c through RW-1-g area available at the discretion of the agency for rights-of-way under the Federal Land Management Policy Act.”

In conjunction with FLPMA, the BLM’s applicable authorities include the following:

- Executive Order 13212, dated May 18, 2001, which mandates that agencies act expediently and in a manner consistent with applicable laws to increase the production and transmission of energy in a safe and environmentally sound manner.
- Section 211 of the Energy Policy Act of 2005, which establishes a goal for the Secretary of the Interior to approve 10,000 MW of non-hydropower renewable energy on public lands by 2015.
- Secretarial Order 3285A1, dated February 22, 2010, which establishes the development of renewable energy as a priority for the Department of the Interior.

3 SELECTED ALTERNATIVE

Based on review of the EA (EA# DOI-BLM-NV-S000-2015-002) and supporting documents, the Proposed Action is the Selected Alternative.

The REM facility will provide up to 50 megawatts (MW) of gravity-based electrical energy regulation on 72 acres of BLM managed land, with temporary impacts to an additional 98 acres. The Selected Alternative was developed taking into consideration the technical aspects of the project and minimizing the facilities to be included within the West-wide Energy Corridor (Section 368 of the Energy Policy Act of 2005, 42 U.S.C. § 15926).

The Selected Alternative includes the following components:

- A 5.5 mile rail corridor, averaging 75 feet in width, which contains the rail line, a track-side maintenance/access road, and an overhead catenary system for interconnecting the locomotives to the electrical system.
- An Operations, Maintenance and Control Facilities Area includes both an operations and control building, a maintenance building for the train vehicles, and an employee and visitor parking lot. Both buildings will be constructed on concrete pads. Adjacent to this area, a transmission interconnection substation will be constructed.

- A Transmission and Access road corridor including a new transmission interconnection connecting the ARES substation to an existing VEA transmission line; upgrades to the affected portion of the existing transmission line; two new sections of transmission lines constructed to route the existing line into Gamebird Switch Station; removal of the existing 230kV transmission line currently bypassing Gamebird Switch Station; and expansion of the existing VEA Gamebird Switch Station within the existing Station right-of-way boundary.
- The new Operations, Maintenance and Control Facilities access road will be co-located with the new transmission interconnection from the existing transmission maintenance road.

4 ADDITIONAL SCOPING

No additional scoping activities were conducted after the public meeting described in Section 5.

5 PUBLIC INVOLVEMENT

Summary of Public Participation

5.1.1 Outline the EA comment process

Public involvement entails “The opportunity for participation by affected citizens in rule making, decision making, and planning with respect to the public lands, including public meetings or hearings . . . or advisory mechanisms, or other such procedures as may be necessary to provide public comment in a particular instance” (FLPMA, Section 103(d)). As required, a 30-day public comment period was provided from October 12-November 11, 2015.

A summary of the comments received, responses to comments, and any changes as a result of these comments can be found in Appendix A of this FONSI.

5.1.2 Describe any changes made to EA as a result of public participation

The EA was updated for clarification as outlined in Appendix A.

6 FINDING OF NO SIGNIFICANT IMPACT

The Las Vegas and Pahrump Field Offices interdisciplinary review and analysis of EA# DOI-BLM-NV-S000-2015-0002 determined the Proposed Action would not result in any significant impacts to the quality of the human environment based on criteria established by regulations, policy and analysis.

Based on the findings discussed herein, We conclude the proposed action is not a major Federal action and will result in no significant impacts to the environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity and do not exceed those effects described in applicable land use plans. Therefore, preparation of an environmental impact statement (EIS) to further analyze possible impacts is not required pursuant to Section 102(2)(c) of the National Environmental Policy Act of 1969.

The Finding of no Significant Impact determination is based on the rationale that the significance criteria, as defined by the Council on Environmental Quality (CEQ) (40 CFR 1508.27), have not been met. “Significantly” as used in NEPA requires considerations of both context and intensity.

Context:

Under NEPA’s implementing regulations, “context” means that consideration of “the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality” [40 CFR 1508.27(a)]. Significance varies with the setting of the proposed action. For instance, in the case of a small, site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short and long-term effects are relevant.

The project is a site-specific action directly involving 72 acres of BLM managed public land in Clark and Nye Counties, Nevada, that does not, in and of itself, have international, national, regional, or state-wide importance. Environmental impacts associated with the proposed action and alternatives have been assessed by an interdisciplinary team and described in EA # DOI-BLM-NV-S000-2015-002-EA. The effects of the action are relatively local, and are not applicable on a national scale since no nationally significant resources or values are present or involved in the project.

Intensity:

The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27 and incorporated into resources and issues considered (includes supplemental authorities Appendix 1 H-1790-1) and supplemental Instruction Memorandum, Acts, regulations and Executive Orders. The following have been considered in evaluating intensity for this proposal:

1) Impacts can be both beneficial and adverse and a significant effect may exist regardless of the perceived balance of effects.

The proposed action would affect resources as described in detail in the EA. Included here is a summary of the understood beneficial and adverse effects.

Beneficial Effects:

Beneficial effects of the project would include improving the consistency of the existing transmission infrastructure; contribute to the stability and reliability of the supply of clean energy within the existing electrical grid; a potential reduction in the need for additional resource consuming energy storage facilities (pumped-hydro or large scale battery developments) in the future; and minor economic benefits in the local community from employment during construction and operation of the facility.

Adverse Effects:

Adverse effects of the Proposed Action include:

- Temporary increases in particulate matter during construction.
- Long-term loss of 72 acres of habitat.
- Removal of cactus and yucca species from within the project area.
- The short-term need for handling and removal of desert tortoises from the area.
- Visual contrast with the existing landscape.

Long-term effects would be limited in scope, primarily resulting from the loss of habitat. Mitigating measures to reduce impacts to the extent possible were incorporated in the design of the proposed action.

There may also be some short-term disturbance and displacement of other wildlife in the immediate project vicinity as the result of noise and human activity associated with construction (98 acres) and routine project maintenance. Displacement and disturbance impacts will be short-term and no measureable long-term detrimental effects are expected.

Overall, the magnitude of the predicted adverse effects is minimal and restricted to the local scale.

2) The degree to which the selected alternative will affect public health or safety.

The environmental analysis documented no significant effects on public health and safety from any of the actions described in the proposed action. Mitigation measures to control particulate matter during construction will minimize potential public health effects.

3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wilderness, wild and scenic rivers, or ecologically critical areas.

The EA evaluated the area of the proposed action and determined no unique geographic characteristics such as Wild and Scenic Rivers, Prime or Unique Farmlands, Areas of Critical Environmental Concern, designated Wilderness areas, or Wilderness Study Areas were present or within the immediate vicinity. Implementation of the proposed action will have no effect on such resources.

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

Under (40 CFR 1508.27(b) (4)), “You must consider the degree to which the effects are likely to be highly controversial. Controversy in this context means disagreement about the nature of the effects, not expressions of opposition to the proposed action or preference among the alternatives. There would always be some disagreement about the nature of the effects for land management actions, and the decision-maker must exercise some judgment in evaluating the degree to which the effects are likely to be highly controversial. Substantial dispute within the scientific community about the effects of the proposed action would indicate that the effects are likely to be highly controversial.”

Effects on the quality of the human environment from authorizing the Proposed Action are not likely to be highly controversial from a scientific perspective. The action of granting a right-of-way, for any purpose, is one which may evoke strong emotional responses in some people. However, granting of a right-of-way for development of an energy storage process with a conservative environmental footprint is both a permissible use of public land and not likely to evoke significant negative responses.

5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The proposed action is not unique or unusual, and understanding of the resources in the area is thorough. The effects of rail, road, and transmission line construction and maintenance activities are well understood and the BLM has extensive experience evaluating the environmental effects

associated with these right-of-way authorizations. The environmental analysis did not identify any highly uncertain, unique, or unknown risk effects on the human environment which would result from authorizing the project.

6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

Any similar action must be evaluated through an appropriate site-specific environmental review and decision making process consistent with applicable law, regulation, policy, and land use plan guidance. This project neither establishes a precedent nor represents a decision in principle about future actions. The granting of rights-of-way on federal lands for use by private entities is a long standing process. A decision to grant would not limit later resource management decisions for areas open to development proposals.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts – which include connected actions regardless of land ownership.

The Proposed Action, as described above and within the EA, is a stand-alone project with no additional related or connected actions. The Proposed Action was evaluated for potential cumulative impacts in the context of past, present, and reasonably foreseeable actions. No individually significant or cumulatively significant effects are identified in the EA. None of the alternatives analyzed in the EA were predicted to contribute to significant cumulative effects on the human environment at either the local, regional, state-wide, national, or international scale.

8) The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

A Class III cultural resource inventory of the area of potential effect for the proposed project was completed and no districts, sites, highways, structures, or other objects currently listed in or eligible for listing in the National Register of Historic Places were identified. The proposed undertaking will have no effect on historic properties. Any future development of the surrounding land will be subject to additional Section 106 compliance, including identification, effects assessment, and, if necessary, resolution of adverse effects.

Area tribes were also invited to review the project for potential effects; no comments were received.

9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973, or the degree to which the action may adversely affect: 1) a proposed to be listed endangered or threatened species or its habitat, or 2) a species on BLM's sensitive species list.

Field surveys were conducted and an assessment of the potential effects on threatened and endangered species was developed. The proposed project would have an effect on the threatened desert tortoise, but no critical habitat for that species is in the area. Approximately 72 acres of habitat will be permanently affected and tortoises found in the area to be in harm's way during construction or operations, would be handled and removed from the area to adjacent areas. The amount of habitat lost to the species is minor compared to the adjacent undeveloped land in this area. No habitat for other threatened or endangered species, or those considered proposed for listing, is present in or near the project area. As the project is consistent with the Las Vegas Resource Management Plan and Final Environmental Impact Statement (October 1998), and

impacts to the species are within the potential impacts described within the US Fish and Wildlife Service Formal Programmatic Consultation with BLM (January 2, 2013), BLM will request appending the project to that Opinion, setting stipulations to minimize those effects.


In addition, habitat within the project area was suitable for several BLM sensitive plant species, including halfring milkvetch (*Astragalus mohavensis* var. *hemigyus*), yellow two-tone beardtongue (*Penstemon bicolor* ssp. *bicolor*), and rosey two-tone beardtongue (*Penstemon bicolor* ssp. *roseus*), and BLM sensitive snakes and desert bighorn sheep. However, none of these species were observed during field surveys, with the exception of one observation of a Mojave Desert sidewinder (*Crotalus cerastes cerastes*), and suitable habitat for these is present throughout the region. In addition, birds covered under the Migratory Bird Treaty Act are present in the area and could be affected during construction of the project; however, measures to avoid impacts to these resources will be implemented.

10) Whether the action threatens a violation of a federal, state, local, or tribal law, regulation or policy imposed for the protection of the environment, where non-federal requirements are consistent with federal requirements.


All environmental laws were considered during development of the Proposed Action to prevent possible violations. The Proposed Action would not violate, or threaten to violate, any federal, state, tribal, or local laws or requirements for the protection of the environment. The Proposed Action would not violate the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, or Endangered Species Act.

Reviewed by: 
Nicollee Gaddis, Planning & Environmental Coord.

2/19/2016
Date

Approved by: 
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2/19/2016
Date

Approved by: 
Deborah J. McNeill, Field Manager
Pahrump Field Office

2/24/2016
Date

ARES Environmental Assessment Comment Response Form

Comment #	Commentor	Section/Topic	Comment	Response	Modification in the EA
1	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Purpose and Need; Range of Alternatives; Hydrology	The document fails to fully address the feasibility of this project and does not fully analyze a reasonable range of more environmentally friendly alternatives. Furthermore, a better analysis of the project’s efficiency could justify a No Action Alternative in this review. We believe that the lack of technical information relating to alternatives justifies a supplemental Environmental Assessment. We also believe that the lack of information regarding surface hydrology and potential flooding justifies an Environmental Impact Statement. The Purpose and Need Statement should prioritize protecting sensitive resources as well as strive for projects that can be trusted to produce a worthy amount of energy.	Thank you for your comment. Feasibility: Project feasibility was addressed with the construction and operation of the Tehachapi, California, pilot project. Purpose/Need: The purpose of the EA was not to analyze other energy storage alternatives, which is out of scope, rather, this particular project only. As discussed in 40 CFR 1508.9(b), additional alternatives are only required if unresolved conflicts are determined. BLM does not see a need for additional analysis in project alternatives or efficiency. This is not a utility power generation project. It is an energy storage and regulation project intended to smooth transmission fluctuations on a real time basis. Hydrology: See Response to Comment 6.	None
2	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Alternatives	Battery Storage in the Built Environment – Pahrump, Nevada was hit by the housing recession in 2008 and several bulldozed, vacant lots were left in the city limits. Because the BLM is required by NEPA to examine alternatives outside of their jurisdiction, this would be a reasonable alternative to the removal of ten’s of thousands of desert plants and impacts to wildlife including the tortoise. Battery storage projects are being built in many locations now and the technology competes with the numbers provided by the ARES Rail Storage project. This technology can be referenced here: This will be a breakout year for batteries http://fortune.com/2015/09/03/battery-record-tesla-storage/	Thank you for your comment. The comment is beyond the scope of this EA. This project only considered alternatives for the technology presented, in accordance with BLM regulations as stated in comment 1.	None

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3	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Alternatives	Since the energy is going to California for the California Independent System Operators, we think BLM should also look at a California location alternative. Surly [sic] there is a sloping built environment alternative to this somewhere in California’s built environment. Or perhaps utilize some private or agricultural land.	Thank you for your comment. The California Independent System Operators (CAISO) manages electricity flow in multiple western states including both California and Nevada. This project will stabilize energy flows within the state of Nevada, as well as other CAISO states.	None
4	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Alternatives	Another alternative that should be considered would simple accounting that utilities use all the time. For example, a solar plant or rooftop systems could be increased in size to have energy to store, and then the utility could cut back in the water flow over a hydroelectric dam during the day and increase it a night. It can all be done with a simple accounting function. Most utilities have hydro, so this will work at many of them, and solar power is already sold on a 24 hour basis using this accounting.	Thank you for your comment. However, this comment is beyond the scope of this EA. This EA analyzed the impacts for this project, not utility practices in general.	None

ARES Environmental Assessment Comment Response Form

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5	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Project Feasibility	<p>Is this project really efficient enough to work well to stabilize the grid? The size of a power plant is usually represented by megawatts PER HOUR because the idea is to produce the maximum amount of electricity. Energy storage is usually represented by the TOTAL megawatts because the idea is the size of storage and the discharge rate can be intermittent or variable. 50 MW from a utility standpoint is not very much. The solar thermal trough power plant at Kramer Junction CA has five 30 MW/hr facilities. 50 MWs total is 20 minutes of production, which is not enough to do much for utilities. A typical 1000 MW/hrs utility plant produces 1000 MWs every hour. Second the efficiency of electric motors will be less due to wear and tear, so that more than 50 MWs would need to be put in to receive 50 MWs. This system is still a tradition steel-on-steel train, with inherent friction and drag. Mag lev trains are supported inches above a track by magnets to reduce friction. A much better idea would be to use large flywheels in a near vacuum supported by magnets. Therefore we question how efficient this technology will be for such a large use of public lands, when distributed generation options could do more and have less environmental impacts.</p>	<p>Thank you for your comment. The project is intended to smooth fluctuations resulting from renewable energy and other sources, not to generate energy or for mass storage of energy. The ARES technology has a proven efficiency of over 80% and is not designed to take an entire energy production facility on or off line. The balancing of the grid involves much smaller energy demands which this project is capable of responding to within seconds.</p>	None

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6	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Hydrology and Flooding	<p>The track will be built on an alluvial fan with a gentle slope, with the least cut and fill during construction. Drainage features will be kept to maintain existing flow. But we have concerns which we raised at the meeting about flooding and debris since an alluvial fan is built up by irregular rock and mud flows during storms. The BLM district manager told us they had dealt with this in the Environmental Assessment, but on page 84 of the EA, that say: " ARES would also prepare a Site Drainage Plan and Storm Water Pollution Prevention Plan (SWPPP)" So no hydrologic study was undertaken, and a plan to prevent flood damage to the structure or land surfaces and structures down slope is deferred until after public review and possible approval. A map in the EA (p. 83) shows the lower part of the track in an active flood zone according to insurance sources. This year (2015) has been a active El Niño year, and the deserts in the region have already experienced large flood events that have closed roads. We ask that a flood control plan be prepared now, before the end of public review.</p>	<p>Thank you for your comment. As required under BLM, state, county and local permits, a Site Drainage Plan and Stormwater Pollution Prevention Plan will be drafted to address hydrologic concerns prior to construction of the project. The Site Drainage Plan will assist in the appropriate placement and sizing of culverts. The project design and these plans will be reviewed by both BLM and Nye County to ensure flood control and water quality issues are addressed during design and construction.</p>	

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7	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Hydrology and Flooding	The Environmental Review states that Wheeler Wash was eliminated as an alternative due to flood control concerns: "Due to the topography of the area, extensive flood control measures would have been required to control and divert runoff from the Spring Mountains. Additional infrastructure and coordination with the Town of Pahrump and Nye County would have been required as well, due to the potentially modified runoff patterns which would drain into the Town of Pahrump. The negative economic impact on the Town and County could have been significant. This area is also adjacent to FEMA designated Zone AO: Areas subject to inundation by 1% annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet. Average flood depths derived from detailed hydraulic analyses are shown in this zone. Some Zone AOs have been designated in areas with high flood velocities such as alluvial fans and washes." Carpenter Canyon wash may have the same flood control problems, and this needs to be analyzed. The flooding potential is very complex and an Environmental Impact Statement would be appropriate for analysis.	Analysis of the FEMA flood potential and a site survey of existing washes and runoff flow patterns indicated the Pahrump South alternative would have a reduced flood potential compared to the Wheeler Wash alternative location. Runoff patterns will be specifically considered and included in site planning once the precise location of the rails have been identified. BLM does not believe flood potential warrants an Environmental Impact Statement. As stated in the response to Comment 6, the project design will be reviewed by both BLM and Nye County to ensure flood control and water quality issues are addressed during design and construction.	None
8	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Biological Resources	It is not clear how much land will actually be impacted. While in public meetings, press articles and BLM announcements it is stated that 72 acres would be impacted, the EA states on page 11 that 170 acres would be disturbed. The EA has no mitigation listed for burrowing owls. Would they be relocated?	Thank you for your comment. The final permanent land disturbance area will be approximately 72 acres. Temporary disturbance will impact an additional 98 acres. No burrowing owl evidence was noted during pedestrian surveys of the site. If burrowing owls are noted during clearance surveys for construction, actions will be taken to protect them in coordination with BLM, USFWS, and NDOW.	None

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9	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Biological Resources	The BLM listed that about 5,000 Joshua trees and Mojave Yuccas would be located in the rail corridor. How would they be removed and salvaged? A No Action Alternative would avoid the need to disturb all of these plants.	These plants will not be salvaged. As stated on page 97, "Temporary disturbance areas will be restored in accordance with BLM guidelines in order to reduce short and long-term impacts. Upon final closure of the site at the end of the project life, vegetation will be restored to comply with current BLM guidelines."	None
10	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Biological Resources	The project has the potential to disrupt desert bighorn sheep connectivity. The rail would be a solid structure and the tracks would be unusual for sheep. The area contains much habitat for bighorn sheep, and need not have well-used trails or other sign to be use by sheep. We have seen lone bighorn sheep, especially rams, traveling along interstate highways looking for crossing points in valley and low hill habitats between mountain ranges. Such long-range movements would not leave trails but are very important for maintaining genetic flow between populations. The EA does not analyze the project's potential to bighorn sheep enough.	The project was designed to minimize movement and migration impacts to deer, elk, sheep, or other similar species. BLM does not believe the project, as currently designed, will significantly impact these species.	None
11	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Visual Resources	The BLM has declared the region as a Class III Visual Resource Management Area, but the nature of Large Scale Energy is that it requires a big amount of space which makes it very visible from great distances including from areas with potentially higher VRM ratings. For this reason, we request that the entire project be evaluated from VRM I standards. The KOP simulations do not include a view from the residential areas that would be closest to the project. These areas would be visible from the area around Winery Road near the famous Pahrump Winery. Several residents live near this areas. Please provide a KOP simulation from residential areas.	Thank you for your comment. The Pahrump Valley Winery neighborhood location is more than six miles northwest of the project site. A gravel pit, the Pahrump Valley Speedway, multiple existing transmission lines and billboards are located between the two locations. In addition, approximately four miles of the corridor will be shielded from view within this neighborhood due to area topography. BLM does not feel additional KOP analysis is warranted at this time. Modification of the existing VRM levels is beyond the scope of this EA.	None

ARES Environmental Assessment Comment Response Form

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12	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Visual Resources	<p>Residents: At the public meeting in Pahrump, a local resident was concerned because he said he would clearly see this project from his porch. He is not the only person who lives here. This is a good reason to examine another alternative.</p> <p>This is also a good reason to consider mitigation for local neighbors who really had no say in the choosing of this location.</p> <p>The BLM has claimed that this project will be completely quiet, producing no noise. The friction of the brakes on the rail will cause noise as will the rumbling of the train. According to the developer, night time will be a high use period for this project. BLM has not considered the impacts this project would have on the neighbors in the area.</p> <p>We believe BLM should consider a reasonable shut off time for this project as mitigation. Perhaps the rail system should not be allowed to operate after ten p.m. in consideration of quiet time for neighbors. Please examine a potential late night curtailment mitigation for this project.</p>	<p>A noise analysis was conducted, see Table 3-2, page 47 of the EA. Due to the electric motors and slow speed of this train, the traditional rumbling and screeching of brakes will not be present. The existing Pahrump Valley Speedway and Nevada State Highway 160 produce much higher noise and light levels.</p> <p>Limiting the operating hours of electric grid balancing would reduce the grid balancing ability of the project.</p>	None
13	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Cumulative Scenario	<p>The Valley Electric Association has been talking up big green energy plans for the Pahrump region for years. If this project is found to be favorable, how many more of these can we expect? And will more of these be built to back up any planned intermittent renewable energy projects in the future? Will the cumulative scenario of building this project result in more environmental destruction? This need to be further examined in the Environmental Assessment.</p>	<p>Thank you for your comment. No other regulation energy management systems are planned, or being considered, for Nevada. Because of this, there is no cumulative impact to be analyzed from building additional similar projects.</p>	None

ARES Environmental Assessment Comment Response Form

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14	Kevin Emmerich and Laura Cunningham Basin and Range Watch	Conclusion	The BLM has once again underestimated the environmental impacts of the next large-scale renewable energy project in Southern Nevada. It is also quite possible that the BLM has overestimated the efficiency potential of this project. Either way, BLM has failed to examine a reasonable range of alternatives for this project and should start over and provide some more complete information.	Thank you for your comment and concern. While this is not a renewable energy project, it does have the potential to support the integration of near and distant renewable energy projects seamlessly onto the local grid. The efficiency of this system was tested scientifically at the existing scale facility in Tehachapi, California. BLM does not believe additional analysis is warranted.	None
15	Kevin Emmerich Basin and Range Watch	Comment Period	BLM made the comment deadline on a Federal holiday, Veteran's Day. All BLM offices are closed. I am hoping this was just an oversight and not a way to streamline the review. Either way, you should never put a comment deadline on a day when your Federal office is closed. That short changes the public.	Thank you for the concern. It was not the intention of the BLM to 'short change' the public in this comment period, and the scheduling of the final day for comments was not intentionally set on a federal holiday. Although federal offices were closed, comments were still accepted electronically on November 11, 2015.	None
16	Mark E Silverstein Clark County Department of Aviation	Design Features	The terms "tortoise crossings," "tortoise escape routes," and "tortoise escape passages" appear to be used interchangeably in the text of the EA. Use of varying terminology to describe the same feature is confusing, particularly where wildlife mitigation measures are continually being developed, studied as examples for other projects, and cited in later studies. CCDOA requests that BLM amends the EA to use a single term, preferably "Tortoise Passage," because "Tortoise Passage" is a broad term that would encompass all three of the varying usages. See e.g., Figure 29, where the design drawing for this feature is called "Tortoise Passage." (In this regard, note also how the caption to Figure 29 illustrates the confusion CCDOA has noted, by stating, "Figure 29. Preliminary Design of the tortoise crossing and escape routes.") If, in fact, the three different terms have different meanings, please define each term in a way that clearly differentiates it from the other terms and ensure that the text conforms to the defined usage.	Thank you for your comment. The EA was revised to address this confusion.	The EA includes a definition for tortoise crossings and escape passages. The term 'route' will be removed from page 66 for clarity. Tortoise Crossing (pages 38, 61, and 66): Areas which will allow a tortoise to cross the right-of-way, without having to cross the train rails. Tortoise Escape Passage (pages 37, 66): "Areas between the constructed crossings where the soil between the rail ties is removed to allow a tortoise to walk under the rail and down the embankment." The caption for Figure 18 was modified to read, "Preliminary design of the tortoise escape passage."

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17	Mark E Silverstein Clark County Department of Aviation	Proposed Action	<p>The EA discusses tortoise connectivity and an assumed contribution of the project to future sustainability without citation to scientific study or the basis for that assertion. See the following passage, for which a citation should be added or the scientific basis explained in detail: In section 3.2.2.1 Proposed Action: "To avoid disrupting habitat connectivity, the 5.5-mile [29,000 linear feet] rail bed Will be constructed at grade level... A series of culverts and safe passage ways will allow tortoises and small animals passage from one side of the railbed to the other. The presence of the Proposed Action, its personnel, and their contribution to local business and taxes may help to jumpstart or lend credence to other projects, such as the Great Basin College, or the Public Safety Center, and could create a synergistic effect to help growth in other areas such as a park, or the Pahrump truck bypass route. It would provide an outstanding example of sustainable development and possibly convince other developers to build sustainably. However, it would continue to contribute very slightly to habitat fragmentation and gradual deterioration if those projects were constructed." No such approach to connectivity was considered in the 2011 Revised Recovery Plan for the Mojave Population of the Desert Tortoise (<i>Gopherus agassizii</i>). This should be</p>	<p>Thank you for your comment. The approach to reducing impacts to connectivity was developed based on the design and footprint of this specific project, and was not limited to only those approaches discussed in the 2011 Revised Recovery Plan. A statement about the potential success of this approach was added to the EA, page 55.</p>	<p>The statement, "The success of this approach to reducing impacts to desert tortoise connectivity and habitat fragmentation will be unknown until the project has been constructed and monitoring data has been collected," will be added to page 55.</p>

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18	Mark E Silverstein Clark County Department of Aviation	Proposed Action	With respect to “sustainable development” (see above), this term is neither defined in the document nor is it clear whether this project can at this time be considered “...an outstanding example of sustainable development” or if it will have the conjectured impact to “...convince other developers to build sustainably”--certainly relative to the wealth of other proven, currently operating, well-documented renewable electric power generation projects. One of the generally accepted definitions, albeit one of many, for sustainable development is “...development that meets the needs of the present without compromising the ability of future generations to meet their own needs”; see https://www.iisd.org/sd/ , International Institute for Sustainable Development. Currently, there is no such documentation that the energy generation benefit of this project at this proposed scale will outweigh any costs to the environment/ecology, economy, and/or socially responsible impacts to or for the community or the region in which it will be constructed and operated. It may well become as touted, “...an outstanding example of sustainable development.” But since this has not been proven to date and has only been demonstrated on a limited basis at the	Thank you for the comment. The term "sustainable development" was clarified in the EA, page 55.	On page 55, the sentence, "It would provide an outstanding example of sustainable development and possibly convince other developers to build sustainably. However, it would continue to contribute very slightly to habitat fragmentation and gradual deterioration if those projects were constructed," should be changed to read, "It may provide an outstanding example of sustainable development and possibly convince other developers to build sustainably. However, it would continue to contribute very slightly to habitat fragmentation and gradual deterioration if those projects were constructed."
19	Judy Bundorf	Purpose and Need/ Alternatives	A supplemental Environmental Assessment, or a fullblown EIS should be required for a project on public lands with a footprint as large as this one. Since this project is located on an alluvial fan, a study of the potential for flooding should be required before the project is permitted to proceed. Flooding could directly impact Highway 160, as well as any future development along that highway downhill from the proposed location.	Thank you for your comment. Please see the response to Comment 1, above.	None
20	Judy Bundorf	Purpose and Need/ Alternatives	Since the power is going to be sold to California, perhaps a better idea would be to locate the project with similar output in California and near the end users.	Thank you for your comment. Please see the response to Comment 3, above.	None
21	Judy Bundorf	Purpose and Need/ Alternatives	Rooftop solar with battery storage would be more economically feasible and less environmentally damaging than the ARES project.	Thank you for your comment.	None

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22	Judy Bundorf	Project Feasibility	It is reported that the project will provide only 20 minutes of power at 50 MW. The life cycle cost of this project would not appear to justify the initial first cost, even if the project were to operate for 20 to 30 years.	Thank you for your comment. Please see the response to Comment 5, above.	None
23	Judy Bundorf	Environmental Consequences	In addition to the potential for flooding of any development downhill from the project, the destruction or relocation of thousands of Joshua Trees and Mojave Yuccas is not feasible. Neither plant species has a very high success rate when transplanted. The 170 acre scar on the hillside will remain for centuries.	Thank you for your comment. As stated on page 27, Biological Surveys, of the EA, "As requested by the BLM, disturbance of special status plants (e.g. cacti, yucca, etc.) will be avoided during construction to the extent possible," and, "Per Nevada Revised Statutes, potentially impacted yucca and cacti will be mitigated for according to current BLM and/or Nevada Division of Forestry requirements." Also see the response to Comment 9, above.	None
24	Judy Bundorf	Environmental Consequences	The area is home to burrowing owls and desert tortoise, as well as being a migration route for desert bighorn. All of the species are sensitive to a construction project of this magnitude, and would indicate the need for an EIS.	Thank you for your comment. See the response to Comment 8, above.	None
25	Judy Bundorf	Environmental Consequences	The visual resources in this area should be given a higher priority. The project will be visible from nearly all residential areas in the Pahrump Valley. The view of Mount Charleston from the valley will be forever impacted.	Thank you for your comment. See the response to Comment 11, above.	None
26	Judy Bundorf	Environmental Consequences	In addition, the noise factor should be considered. People who move to Pahrump do so to escape the noise, lights, etc. of the city. Does an industrial project of this size belong in a small community.	Thank you for your comment. See the response to Comment 12, above.	None
27	Judy Bundorf	Comment Period	There seems to be inadequate notification of the residents regarding this project. Very few people who live in and around Pahrump were adequately informed of the forthcoming project and its potential for impacting the small town atmosphere.	Thank you for your comment. The BLM conducted external scoping (public involvement) as required under 40 CFR 1501.7. The EA was made available to the public for review, and a public comment period was open from October 9 to November 11, 2015. A public meeting was announced in the Pahrump Valley Times on October 21, 23, and 28, and the meeting was held on October 28, 2015.	None

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28	Leo Blundo	General	<p>I'm in support of this project. I believe we need to be approaching it with an open mind, looking at new ideas for renewable energy here in the county and in the state. I believe in the future that a lot of the power will actually remain here in Pahrump.</p> <p>There's a long term investment, not just for a private business but for the county as well. It's refreshing to see that. Although 86 percent of Nye County is owned by a federal agency, we're cutting into it and we're allowing a private business onto the BLM land, and I appreciate that the BLM is working with private business owners. That's something we should be doing on a more frequent basis.</p> <p>You know, there's a lot of safeguard to taxpayer money. No taxpayer money is being used on this, and we are covered by a bond. They are being bonded to prevent any taxpayer money being used to clean up a disastrous event.</p>	Thank you for your comment.	None