



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT CARSON
1626 ELLIS STREET, SUITE 200
FORT CARSON, CO 80913-4143

MAR 13 2017

Ms. Lori L. Seago
El Paso County Board of County Commissioners
Office of the County Attorney, Civil Division
7170 Turkey Creek Ranch
Pueblo, CO 81007

Dear Ms. Seago:

This letter is in response to your request to lease approximately 120 acres for the construction of a solar farm and electrical substation on property purchased as part of the Army Compatible Use Buffer Program. The properties in question are El Paso County real estate parcel schedule numbers 57170-07-004, 57170-07-005, 57170-07-006, and 57170-07-019. The request letter dated December 20, 2016, on behalf of the El Paso County Board of County Commissioners, describes the proposed location, size and purpose of the project.

This letter constitutes the express written approval by which we agree that this project does not violate the terms and obligations of the Cooperative Agreement W911SR-07-2-0003 between the El Paso County by and through the Board of County Commissioners of El Paso County, Colorado and the United States Army Research Development and Environmental Command on behalf of Fort Carson and the Army. Our statutory goals for the program and for the remaining undeveloped parcels include a balance of compatible development and preservation of habitat. This project as proposed appears consistent with our goal of compatible development and does not result in limitations on the installation's military training and operations. This approval is limited to the particular project described above. The Army does not endorse the project with respect to any governmental or public review processes necessary for approval, construction and operation of the solar farm and substation.

Thank you for your efforts in support of our longstanding and productive partnership for conservation, compatibility and environmental stewardship.

Sincerely,

Ronald P. Fitch, Jr.
Colonel, U.S. Army
Garrison Commander

August 18, 2017

El Paso Board of County Commissioners
200 South Cascade Ave.
Colorado Springs, CO 80903

RE: Support for the Front Range-Midway Solar Project in El Paso County

Dear El Paso County Board of Commissioners:

I am writing to express my support for the proposed Front Range-Midway Solar Project in El Paso County. My name is Leslie Weise. I am an intellectual property attorney, licensed to practice in the State of California. I received a JD and Master of Intellectual Property law degree from the University of New Hampshire, and a Master of Environmental and Natural Resource Law and Policy degree from the University of Denver, Sturm College of Law. Since living in El Paso County from 2011 to present, I have acquired significant knowledge in the matters of energy generation by the Colorado Springs Utilities (CSU), and on the topics of air quality and regulatory compliance. I am aware that CSU, through its operations for the supply of power, heat and water to the second largest urban area, and a large portion of the largest county population in the State of Colorado, is a major contributor of air pollution and greenhouse gas emissions because of its significant reliance on fossil fuels for its energy production.

The proposed Front Range-Midway Solar Project would create 100 MW of solar energy from ground-mounted photovoltaic (PV) panels. The location for this Solar Project is highly advantageous, as the associated new PV panels, electric collection system, substation, and power lines would connect to existing Western Power Administration or PSCo Substations located adjacent to the Project – and thus the burden and cost of new transmission lines that is often required for large new capacity development is avoided. In addition to the environmental benefits discussed below, according to the developer, the Solar Project would create two full-time jobs as well as 200 short term jobs during construction. The Solar Project is also forecast to generate over \$170,000 in tax revenues, most of which will contribute to improving education.

The project might also be beneficial to CSU, because on August 16, 2017, the CSU Staff recommended to its Utility Board that 72 MW of solar power be added to its energy production portfolio. The Solar Project represents a synergistic opportunity that could benefit the City of Colorado Springs and County of El Paso directly. Thus, I urge the County Commissioners to facilitate necessary approvals for the Solar Project so that the benefits of the proposed renewable energy generation may be realized.

Environmentally, there are a multitude of benefits to solar power, especially as compared to energy production from fossil fuels such as coal, oil, and natural gas. Solar energy is not finite like fossil fuels and is the most abundant of all energy resources.¹ Solar power systems lead to the creation of far fewer harmful pollutants, such as fine particulate matter, sulfur dioxide, and nitrogen dioxide.² In fact, PV solar power systems, such as the proposed Project, do not create any type of solid, liquid or gaseous by-products during their energy generation phase.³ Generally, the pollutants created as a result of using solar power systems are created during the panel manufacturing stage. Therefore, unlike the over 60% of energy production in the Colorado Springs Utilities' portfolio that is generated from coal combustion at two facilities, the Ray Nixon and Martin Drake Power Plants, the proposed Front Range-Midway Solar Project will not contribute in any substantial way to air or water pollution in the vicinity of the Project as these two coal plants do.

By entering into this new proposed solar energy project, not only will El Paso County see an increase in local energy production, additional jobs, and infrastructure, the Project will also reduce reliance on coal-powered generation. Unlike solar power, generation of energy using coal creates many harmful pollutants, including fine particulate matter, sulfur dioxide, and nitrogen dioxide. The World Health Organization has guidelines for each of these pollutants and their negative health effects.⁴ Among other things the World Health Organization states that: exposure to particulate matter has been linked to increased mortality and morbidity; bronchitis in asthmatic children has been shown to increase with exposure to nitrogen dioxide; and sulfur dioxide affects the respiratory system and function of the lungs, which can include inflammation of the respiratory tract, and aggravation of asthma.

Solar production also uses a fraction of water than other forms of energy generation. Here in Colorado, where water is such a scarce and valuable resource, the water saving nature of solar generation is especially important. Coal uses approximately 100-1,100 gallons per MWh,

¹ Arvizu, D., P. Balaya, L. Cabeza, T. Hollands, A. Jäger-Waldau, M. Kondo, C. Konseibo, V. Meleshko, W. Stein, Y. Tamaura, H. Xu, R. Zilles, *Direct Solar Energy. IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation*, Chapter 3: Direct Solar Energy, 2011, at p. 337, available at http://www.ipcc-wg3.de/report/IPCC_SRREN_Ch03.pdf.

² Office of Energy Efficiency & Renewable Energy, Sunshot Initiative, The Environmental and Public Health Benefits of Achieving High Penetration of Solar Energy in the United States, <https://energy.gov/eere/sunshot/downloads/environmental-and-public-health-benefits-achieving-high-penetration-solar>

³ Arvizu, *supra*, at 370.

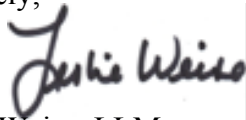
⁴ World Health Organization, Ambient (Outdoor) Air Quality and Health: Fact Sheet, updated Sept. 2016, <http://www.who.int/mediacentre/factsheets/fs313/en/>.

whereas solar does not require any water in the actual generation of energy.⁵ Water consumption by the Martin Drake Coal Plant alone, historically has exceeded over \$3.3 million per year, using half potable and half non-potable sources.⁶

Solar power production also drastically reduces greenhouse gas emissions as compared to fossil fuels, even when considering the entire life cycle of solar power systems including panel production.⁷ Although the total amount of greenhouse gasses emitted by solar power generation systems using a cradle-to-grave analysis varies, the majority of lifecycle greenhouse gas emissions estimates averages between 30 and 80 g CO₂ eq/kWh.⁸ Compare this to coal-powered generation, which on average is around 1050 g CO₂ eq/kWh.⁹ Most of the greenhouse gasses are CO₂ emissions created in the manufacturing of solar panels and other equipment; so the actual generation of energy using solar panels by this Project will produce very little greenhouse gases during decades of energy generation.¹⁰ With regard to this specific proposed Front Range-Midway Solar Project in El Paso County, it has the potential to offset approximately 182,000 metric tons of CO₂ annually, while providing clean energy to over 20,000 homes,

For all of the social, economic and environmental benefits of solar energy production compared with fossil fuel energy generation, including less pollution and carbon emissions and less water usage, I encourage the El Paso County Commission to support the proposed Front Range-Midway Solar Project.

Sincerely,



Leslie Weise, LLM

leslie@weise.us

303.523.0016

⁵ Sandy Dachert, Solar Power Is A Huge Water Saver (World Water Day Infographic), Clean Technica, Mar. 22, 2014, <https://cleantechnica.com/2014/03/22/solar-power-water-use-infographic/>.

⁶ Final Report by HDR Engineering titled *Study of Alternatives Related to the Potential Decommissioning of the Martin Drake Power Plant*, December 2013.

⁷ National Renewable Energy Laboratory, Life Cycle Greenhouse Gas Emissions from Solar Photovoltaics, <https://www.nrel.gov/docs/fy13osti/56487.pdf>.

⁸ Arvizu *supra* at 370; see also David D. Hsu, Patrick O'Donoghue, Vasilis Fthenakis, Garvin A. Heath, Hyung Chul Kim, Pamela Sawyer, Jun-Ki Choi, and Damon E. Turney, *Life Cycle Greenhouse Gas Emissions of Crystalline Silicon Photovoltaic Electricity Generation: Systematic Review and Harmonization*, Journal of Industrial Ecology, Volume 16, Issue Supplement s1, Version of Record online: 19 Mar 2012, at S128, available at <http://onlinelibrary.wiley.com/doi/10.1111/j.1530-9290.2011.00439.x/pdf>.

⁹ Kristine Wong, Lifetime Greenhouse Emissions of Solar PV Systems vs. Coal-Powered Systems, CNG Solar Engineering, April 22, 2015, <https://cngsolarengineering.com/lifetime-greenhouse-emissions-of-solar-pv-systems-vs-coal-powered-systems/>.

¹⁰ See Arvizu *supra* at 340.



August 24, 2017

Letter of Support for Proposed Solar Project South of Fountain, Colorado

To whom it may concern:

The City of Fountain supports the proposed Front Range-Midway Solar Project to be located south of the City of Fountain. The project has multiple benefits including:

- Renewable energy for our region
- Improved roads and access
- Educational opportunities related to renewable power

Fountain has been an advocate of renewable energy projects, including the proposed Pueblo Hydroelectric Facility, and we are supportive of this proposed solar energy project.

Please feel free to contact me with any questions or for additional information.

Sincerely,

Curtis A. Mitchell, P.E.
Utilities Director

*City of Fountain
116 S Main St
Fountain, CO 80817*

The Hanover School

Excellence in Education

August 12, 2017

Subject: Letter of Support

It is with great enthusiasm that I write this letter of support for the Front Range-Midway Solar Project. I am the Hanover School District 28 Board President, having spent 7-years on the school board.

Prairie Heights Elementary School has been able to deliver a quality academic program for the 130-135 students over the 8-years it has been open. The community is supportive of the school and the District. The Hanover School District community stretches more than 30 miles east to west and is comprised of two distinct areas: Hanover and Rancho Midway. The Hanover area of the district is comprised of large acreage ranchland with a few 30-60 acre residential lots. The Rancho Midway area is comprised of more houses on smaller acreage lots.

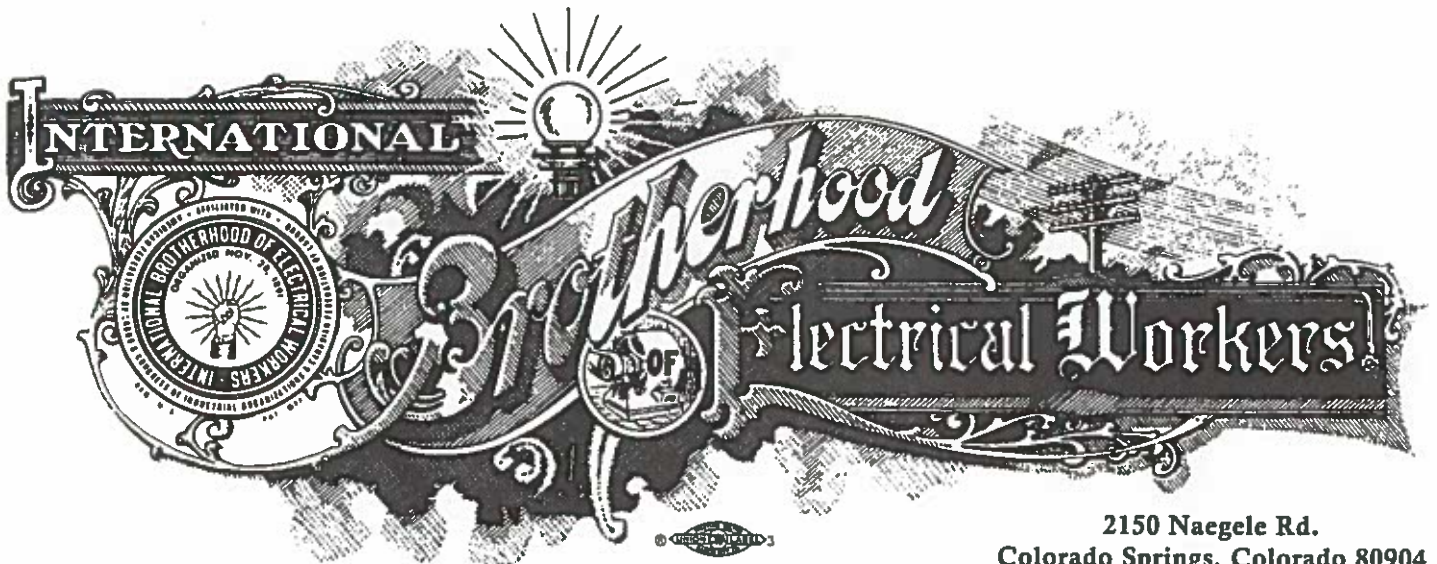
This project is a welcomed benefit to our community and District. It not only enhances the power grid, it brings incredible benefits that include improvement of local roads, construction jobs, and an increase in revenue to the District. Each of these singularly would be an exceptional reason to place this solar project in our area. When combined, it serves to bring badly needed improvements to our Mid-Way community. Additionally, it gives the District opportunities to seek educational programs and resources for our students.

I am a strong believer in the support of these environmentally friendly projects, and have seen where many are mutually rewarding for the project and the community. Should you have questions concerning this letter, please contact me at (719) 649-4944 during the normal business day or (719) 683-7310 after hours.

Respectfully,



Mark McPherson
President
Board of Education



September 28, 2017

2150 Naegele Rd.
Colorado Springs, Colorado 80904
(719) 633-3872
Local Union #113

Mr. Dennis Hisey
Front Range-Midway Solar Project, LLC

Mr. Hisey,

I'm writing in regards to the proposed 100MW solar project to be constructed by Tradewind Energy in El Paso County. As a representative of approximately 1,100 working men and women in and around El Paso County, I am excited to see a project of this magnitude coming to our area. We represent the electrical workers that would play a large part in the construction of the project and look forward to being a part of such an important project.

As citizens of El Paso County, one of our main concerns with these types of projects is mandating a local hire provision in the RFP. We want to partner with Tradewind during the construction of the project to ensure that local workers benefit from the roughly \$6 million dollars in tax revenue that will be created. When local works have the opportunity to benefit, so do our local businesses and we feel that it's a win-win situation when you hire local.

We also would like to see opportunities for the workers employed during the project to enroll in apprenticeship programs. The local Colorado Springs Electrical Training Alliance provides those types of opportunities for the workers employed on this project. As with most construction projects, the time spent in the construction stage is short lived. We want to ensure that the El Paso County citizens have an opportunity to continue in the electrical industry for many years after this project is complete and providing apprenticeship opportunities will do just that.

In conclusion, we are in full support of this project with the provisions listed above, assuring that the local community partners see the full benefits of the project. We look forward to working together to construct the solar farm and can answer any questions you might have concerning this letter.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Brian Bradley'.

Brian Bradley, Business Manager
IBEW Local Union 113
719.352.9223 cell

August 18, 2017

El Paso County Board of Commissioners
200 South Cascade Ave.
Colorado Springs, CO 80903

RE: Support for the Front Range Midway Solar Project in El Paso County

Dear El Paso County Board of Commissioners:

I support the proposed Front Range-Midway Solar Project (FRMSP) in El Paso County. I am Jacquie Ostrom and I served as the Co-Chair of the most recent Community Advisory Group on the Electric Integrated Resource Plan. I can tell you that we projected a need for 80 MW of Solar in the near future. At the August 16th Colorado Springs Utility Board Meeting CSU recommended to the Board 74 MW of solar. If the FRMSP could meet that need as part of the 100MW project at a reasonable cost, it would be a win-win situation for our local community.

Cost will be a big question. Earlier this year XCEL entered into a power purchase agreement for wind energy at 2.9 cents/kWh. It's unclear what cost range this project falls into but that would seem to be the only show stopper. All else with this project seems well thought out in terms of land, transmission lines.

Back to Cost, CSU has long touted Drake as costing 2.6 cents /kWh, but that did not include the expensive to run Neumann Scrubbers. CSU has so far refused to make the day to day costs of running these scrubbers, nor the cost per kWh, public. So it's a bit hard to compare and know what benchmark this new solar PPA will be compared to in order to make the cost/kWh competitive and appealing.

I currently serve as Secretary of the statewide non-profit Colorado Renewable Energy Society and am a board member of the regional chapter, South Eastern Colorado Renewable Energy Society. I can tell you that Colorado Springs and El Paso county in general and CSU in particular, are behind in generating renewable energy, largely because CSU's lobbyist has been successful in keeping State law relating to municipal utilities and the % (10%) of RE generation lower than the % required for Investor Owned Utilities (30%) and for Rural Electric co-ops (30%). The point being we are behind EVERY other Utility in the state, including other municipal utilities such as Ft. Collins and Montrose. So a solar electric program such as this would go a long way to bringing the Colorado Springs and El Paso County community up to par with the rest of the state and help prevent, and hopefully end the view of our region as being behind the times.

In the past, the city of Fountain has purchased their electricity from MEAN, Municipal Electric Association of Nebraska which was hugely wind energy. Fountain used to tout that they had more RE than any other town in the state. Fountain might also be a candidate for a PPA as part of the 100MW from FRMSP.

Further Solar electric is perfect for Peak Shaving, as they call it. CSU's peak electric generation is in the afternoon on hot summer days when everyone has their air conditioners turned on. Solar's peak generation matches this peak need. It also matches the troughs of cloudy summer afternoons when less energy is needed for air conditioning in summer.

I haven't even touched on the environmental positives of moving toward solar and wind, but I assume those are pretty self evident with dirty and ugly plumes of Drake in the heart of downtown. Not everyone realizes that coal has a concentration of heavy minerals from the ancient trees that turned into coal. So burning it puts benzene, mercury, lead, SO₂, NO_x, and many more pollutants as well as, the greenhouse gas, CO₂ into the air we breathe. It's just bad, unhealthy and very expensive to remove and impossible to get it all.

CSU's own surveys show that a very large majority, 75% - 85% of residential, commercial, industrial and even low income residents favor moving toward more renewable energy. It's popular and it brings jobs to our community. There are over 6,000 jobs in the State supporting solar energy, and over 3,400 jobs in wind energy in the state. This is a very positive trend and we have been missing this band wagon for some years now.

It would be a feather in the cap of the El Paso County Board of Commissioners to assist in developing the proposed Front Range-Midway Solar Project in El Paso County! You'd be heroes with a majority of the community.

Sincerely,

Jacqueline M. Ostrom
jostrom@lindseyfam.net
719 238-1993

Good afternoon Dennis,

It was good to meet and talk with you this past Saturday. From my perspective, I see a lot of potential value to the proposed solar farm. Not only will it produce clean energy for the public, there is a commitment from the operator to repair a portion of our road network, and a long-term potential for income to the county. The potential county income from the project, in the form of lease payments, may ultimately accrue the Pioneer Village Public Improvement Districts (PID) and would help in maintaining our roads.

Based on where my home is located, the solar farm will not have any impact on my view shed. The natural beauty of the area is an important aspect of life for many of our residents in this rural area of El Paso County, so I think it is imperative the solar farm operator and the county commissioners consider the viewpoint of those whose view shed will be impacted.

From my perspective, this project has significant, positive value to the area, particularly because of the potential for long-term contributions to our road maintenance program. I believe the negative aspects of the solar farm project can be mitigated by talking to the residents, embracing their concerns, and taking appropriate action to address their concerns.

Respectfully,

Jim Rice



Hanover Fire Protection District
13325 Old Pueblo Road
Fountain, CO 80817
(719)382-1900



To: Whom it may concern

From: Chief Carl Tatum

Reference: Letter of Support for the Front Range Midway Solar Project;

The Hanover Fire Department supports the Front Range Midway Solar Project in the Rancho area. The road improvements that will be necessary to facilitate construction of the project will shorten response times to the families living west of the project as well as provide a benefit in the form of less wear and tear on the District's equipment resulting in lower maintenance cost.

These roads along with improvements the Pioneer Village Public Improvement District will be able to make with the donation provided by the solar company to the PID will not only benefit Hanover Fire District but every resident in Pioneer Village and beyond as they travel these roads daily.

In addition, the solar company is working with Hanover Fire District to enhance firefighting capability in the area as well as developing fire breaks within their project boundaries. Also the solar company will provide an additional commercial tax base in a district heavily dependent on residential properties and therefore subject to ever decreasing revenue as the Gallagher Amendment continues to ratchet down residential rates.

A handwritten signature in black ink, appearing to read "Carl Tatum", written in a cursive style.

Chief Carl Tatum