Appendix Z

EASLEY sUAS FLIGHT OPERATIONS PLAN

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Drone Use for Construction Progress Monitoring

Desert Center, CA

Prepared for

Intersect Power

IP Easley, LLC

a subsidiary of Intersect Power, LLC

Submitted by

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1. PROJECT DESCRIPTION & OBJECTIVES

IP Easley, LLC (Applicant), a subsidiary of Intersect Power, LLC, will be conducting construction progress monitoring of the Easley Renewable Energy Project which will be supported by aerial drone operations and aerial imagery collection. Drone flights are conducted on a weekly basis and operate in compliance of Title 14 of the Code of Federal Regulations, Part 107, Small Unmanned Aircraft Systems (sUAS).

The flight operations plan described herein is preliminary plan and may be supplemented during pre-construction compliance, as approved by BLM and other agencies as needed. For the Easley Renewable Energy Project ("Project"), the proposed flight plan includes weekly drone operations to collect high resolution imagery two to three days of each week at a maximum altitude of no more than 400' Above Ground Level (AGL) per Federal Aviation Administration ("FAA") regulations. The period of performance of drone operations shall be for the duration of the construction phase of the Project to enable progress monitoring and reporting for Intersect Power.

The drones shall be operated by FAA Part 107 certified pilots who are insured with individual policies and further covered by a Global Aerospace aviation policy held by the Applicant's contractor. The pilots are trained and complete continued education at least every 24 calendar months. They are professionals in the industry with experience operating at active construction sites.

2. DRONE OPERATIONS OVERVIEW

The Applicant's contractor may deploy two types of sUAS to capture different types of imagery of the Project site. The primary aircraft flown is a fixed wing sUAS and is supplemented by a more traditional quadcopter design. Additional equipment details are provided in the Equipment section.

During operations, the Remote Pilot in Command ("RPIC") always maintains a visual line of sight of the drone in accordance with 14 CFR Section 107.31. Additionally, the RPIC is responsible for performing equipment and preflight checks, monitoring site conditions, air traffic, and maintaining full command, control, and communication with the sUAS.

Launch and land spots for the two types of drones are determined after a full site survey and assessment of the ground surfaces, surrounding areas and structures, construction activity, wildlife activity, fenced areas, and weather patterns is performed. Once selected, the launch/land areas typically remain the same for the duration of the project unless an external factor creates a need for change. These areas are selected to ensure minimal ground disturbance and maximum clearance for the ascent and descent legs of flight. In case of signal loss or in the event of an emergency, both drones have automated safety features and "return to home" functionality requiring little to no input from the pilot to abort the flight and land at the designated area. Pilots are trained how to respond to a variety of emergency situations and are educated about the necessary emergency procedures specific to each drone.

To further mitigate any potential environmental impacts or operational hazards, operations at Easley shall be supported by the on-site biologists who are available to assist with a site assessment prior to each flight and to ensure the designated launch and land areas for the drones are free and clear from any wildlife and protected species. Similarly, for operations near Gen-Tie towers or other tall structures, biologists can support the pilot in assessing any nesting or active bird activity to be avoided. If necessary and in accordance with FAA regulation, the pilot has the discretion to adjust flight altitude within a 400' radius of a structure and can fly upwards of 800' AGL to avoid possible disruption to nesting or active wildlife. Ultimately, if conditions are unsafe or unfit, the flight path will be modified or the mission canceled.

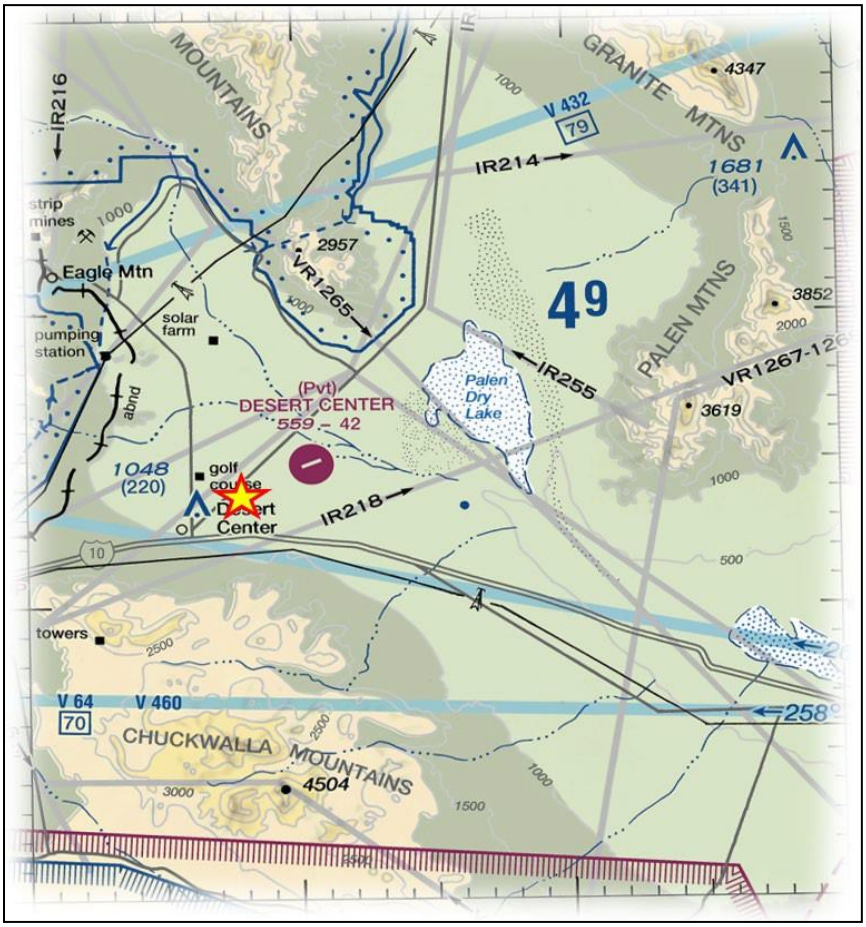
3. AIR SPACE EVALUATION

A thorough evaluation of the air space above the Easley Project site was conducted for the adjacent Oberon Project by a FAA Part 107 certified employee of the Applicant's contractor who is trained to read FAA sectional maps and is educated about the FAA regulatory requirements. The review found no limitations, no restrictions, and no "no fly zones" and was conducted via direct contact with the FAA, confirmed using multiple data sources, and consultations with industry professionals.

3.1. Airspace Evaluation – FAA Sectional Maps

A review of the FAA Sectional Aeronautical Chart of the Los Angeles area was conducted using the two most recent flight maps dated September 8, 2022, and November 3, 2022. The FAA provides updated charts every 56 days as standard operating procedure and releases the updated charts to the public with a regular cadence. **Figure 1** provides a zoomed view of the chart with an added yellow star indicating the approximate location of the Project site. The airspace overhead is classified as Class G airspace by the FAA which is unrestricted up to an altitude of 18,000' Mean Sea Level (MSL). Drone operations shall be limited to no more than 400' AGL which is roughly 959' MSL at the Project site based on the surrounding elevation data. The project does not fall within a designated Wilderness Area, nor any Military Operations Areas (MOA), nor any other restricted air space zones, and is outside the boundaries of Joshua Tree National Park. There are no special authorizations or waivers from the FAA required to operate at this Project. This was confirmed through direct contact with the FAA.

Figure 1. Excerpt from FAA Sectional Chart – Los Angeles – dtd 03 November 2022



3.2. Airspace Evaluation – NOTAMs & TFRs

In addition to reviewing the sectional charts, a review of the available FAA Notice to Air Missions ("NOTAM") and Temporary Flight Restriction ("TFR") listings was performed with no discoveries limiting sUAS operations at the Project site at the time of this report. These alert systems will by continuously monitored for updated postings and drone operations will be adjusted accordingly.

3.3. Airspace Evaluation – Consultation with Industry Professionals

The Applicant's contractor consulted with three separate industry partners who offer professional sUAS pilot services, and each performed a similar evaluation of the Project location with no findings nor restrictions. Each indicated the airspace is unrestricted and without requiring any special flight authorizations from the FAA.

3.4. Airspace Evaluation – Contact with Desert Center Airport

The Applicant's contractor contacted the owner and operator of the Desert Center Airport (CN64) in October 2022 and discussed the proposed drone operations with the airport operations crew. The airfield is a small, privately owned airport located approximately half a mile southeast of the Project at its closest point. The airport experiences minimal air traffic and is limited to small aircraft such as a Cessna airplane and operates almost exclusively during weekends. Air traffic during weekdays is rare and typically reserved for emergency landings. The Applicant's contractor's proposed flight schedule is expected to be on Wednesdays and Thursdays (though may be adjusted to two other days of the week during pre-construction compliance) and will be coordinated with the airport regularly.

The airport pattern altitude, or approach altitude for landing aircraft, is 1,000' AGL, and is well above the 400' AGL altitude the drone will be operating at the Project site. While not required, the Applicant's contractor will coordinate the flight schedule and flight path with the airport to ensure drone operations do not interfere with airport operations.

4. PROPOSED FLIGHT PLAN

Custom flight plans are created after detailed review of the airspace, site layout, ground activities and landmarks, and weather patterns and can be revised in real-time based on site and weather conditions. High winds (greater than 21 knots or 11m/s) and precipitation create unsafe conditions and operations are aborted for the duration of the day to be resumed the following day or only upon the pilot's re-assessment of the site.

Flight plans will be made to ensure operations over active, public roads are avoided. For the areas in proximity to roadways, a quadcopter will be flown to allow the pilot more exact control of the drone while the remaining areas will be captured with a fixed wing drone.

For the Easley Project, the proposed flight parameters are as follows:

- **Operating altitude:** Max altitude of 400' Above Ground Level; 300-400' AGL on average. Adjusted within 400' radius of structures to allow for additional elevation gain, as required.
- **Frequency of flights:** Weekly; flights expected to occur every Wednesday and Thursday (though may be adjusted to two other days of the week during pre-construction compliance), as weather permits
- **Time of flight activity:** Daylight hours (8:00am to 6:00pm); adjusted for daylight savings time and sunrise/sunset, as required. No night operations.

5. sUAS EQUIPMENT

The Applicant's contractor deploys two different types of drones for capture of a variety of media at each project site. The primary drone is a fixed wing drone which is used to cover the entirety of the site for creation of detailed orthomosaic imagery. The secondary drone is a quadcopter design which is primarily used for capturing birds-eye views and creating a 360-degree panoramic image of the project and supplements the fixed wing for orthomosaic imagery.

All equipment is professionally managed and maintained by the pilots, certified employees of the Applicant's contractor, and is returned to the manufacturer at scheduled maintenance intervals to ensure safe operations and proactive equipment management.

5.1. SenseFly eBee X Fixed Wing

The SenseFly eBee X is the primary drone used for capture and creation of the orthomosaic imagery of project sites – **Figure 2**. It is an industry-leading asset, is approved by the FAA and Transport Canada agencies for operations over people in unrestricted zones and has received safety accolades from the European Union Aviation Safety Agency ("EASA"). It utilizes automated mission management software and enables limited pilot control by means of a ground control station with emergency abort and landing functionality. An automated "return to home" function is one of many safety features included.

Figure 2. SenseFly eBee X Fixed Wing Drone

The eBee X is deployed with a 20MP camera and captures imagery utilizing a pre-planned flight path with numerous way points ensuring high precision imagery. The drone is free from hard front plastic parts and employs a rear-facing single propeller motor. The fixed wing configuration enables longer duration flights as compared to quadcopter designs. This drone is battery powered.

This drone launches by hand and is thrown up into the air by the pilot. The landing requires the pilot to establish a designated home point area to land the aircraft in a controlled "glide and slide" maneuver.

5.2. DJI Matrice 210 Quadcopter

The DJI Matrice 210 is an industry-best asset commonly used for power line, wind turbine, telecom, and bridge inspections, search and rescue operations, agriculture, and solar panel inspections – **Figure 3**. Like the eBee, it utilizes automated mission management software however it enables additional pilot manipulation and control by means of a handheld flight control system which includes the ability to adjust positioning and altitude with one touch, automated "return to home" functionality, and a vertical takeoff and land capability.

Figure 3. DJI Matrice 210 with Zenmuse X5S camera

The Matrice 210 can be deployed with a variety of payloads but most commonly with the DJI Zenmuse X4S or DJI Zenmuse X5S 20MP cameras. The quadcopter design allows for high precision and free maneuverability by the pilot, vertical takeoff and landing, and the ability to hover in place. This drone is battery powered.

6. OTHER CONSIDERATIONS

Drone operations offer many benefits for construction sites including a unique perspective, near real-time monitoring, and a non-disruptive way of collecting data from the field.

6.1. Drone Operations Offer Reduced Vehicle Traffic

Traditional progress monitoring is performed on foot and by vehicles driving around the project site. With a battery-powered drone, operators collect high resolution imagery from one or two fixed locations and status the site with high accuracy and few-to-no emissions. Drone operations result in little-to-no ground disturbance with the added flexibility of relocating launch/land locations in real-time. They minimize vehicle traffic and reduce the risks of running into or over burrowing or nesting wildlife in the field. Once the drone pilot(s) arrives at the project site, vehicle traffic is limited to the defined access roads within the fenced Project site and drones are operated from a few select areas determined to maximize flight coverage and minimize environmental and wildlife impacts.

6.2. Site Safety and Notice to Site Crews

At each project site, all site personnel are put on notice that a drone may be operating overhead on certain days and crews should be alert of such activities. Additionally, because the Project site is a restricted area from the public, this mitigates the risk of public safety concerns. Finally, all crews are required to wear personal, protective equipment including a hard hat. There are no known significant impacts to public health or safety due to drone operations.

7. NEARBY OPERATIONS AT BLYTHE MESA SOLAR AND OBERON

The Applicant has operated drones at a nearby project sites, Blythe Mesa Solar (A.K.A. Athos III), for several months with a similar operational tempo to what is being proposed for the Easley Project. Athos III is roughly 60 miles east of Easley just outside Blythe and Mesa Verde towns and Oberon is directly adjacent to Easley.

Previously, BLM provided approval for drone operations for the visual inspection of the Blythe Mesa Solar Generation Tie Lines through a Categorical Exclusion (reference DOI-BLM-CA-D060; case file CACA 053213) and as a Level 1 Variance for the Oberon Renewable Energy Project using a similar quadcopter-style drone.

The operational tempo of drones used for construction progress monitoring at the existing Blythe Mesa and Oberon projects is similar to this proposal with weekly flights 2-3 days per week using a variation of the DJI quadcopter drone referenced above. Due to the high frequency of air traffic at the Blythe Airport (BLH) and a lower operating ceiling as result, a quadcopter drone was flown at the nearby Athos III/Blythe Mesa site at a maximum altitude of 200’ AGL to reduce chance of operational interference.

Sample Aerial Imagery Used for Providing Birds-Eye View of Site

Sample Orthomosaic Imagery Use for Construction Progress Monitoring