

# Appendix C-1: FAA Feasibility Report (August 4, 2009)

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August 4, 2009

Mr. Steve Offenhauser  
enXco Midwest Development  
10 2<sup>nd</sup> St. NE, Suite 107  
Minneapolis, MN 55414

Re: Stoneray MN, ASI 09-N-0248.008

Dear Mr. Offenhauser:

Pursuant to your request, Aviation Systems, Inc. (ASI), has performed an initial evaluation of the feasibility of the Stoneray MN Wind Power Project. The purpose of the study is to determine the feasibility of erecting wind turbines with a tip height of up to 398 feet above ground level (AGL), from an aviation and airspace point of view. We have reviewed the above referenced project against aviation and airspace criteria set forth in Federal Aviation Regulation (FAR) Part 77 (14 CFR 77) *Objects Affecting the Navigable Airspace*; FAA Order 8260.3B, the *United States Standard for Terminal Instrument Procedures (TERPs)* and; FAA Order JO 7400.2G, *Procedures For Handling Airspace Matters*. The criteria in these documents comprise the factors the Federal Aviation Administration (FAA) will use in evaluating the aeronautical compatibility of the project when it is submitted for their official regulatory review. Our findings include the following:

- The project consists of proposed wind turbines to be located within an area 7.81 x 13.07 nautical miles (NM) in the State of Minnesota.
- Ground elevations within the area range from 1560 feet above mean sea level (AMSL) to 1950 feet AMSL. With a proposed turbine height of 398 feet AGL, the highest point of the project would be 2348 feet AMSL. See attached map depicting the project and surrounding area.
- The nearest public airport is Pipestone Municipal (PQN) Airport, located 8.69 NM, west of the project centerpoint. The project would impact Pipestone Municipal Airport operations as noted below.
- The project would have no impact on En-Route Low Altitude Airways.
- The project would impact a Minimum Vectoring Altitude (MVA). The MVA would be penetrated above 2400 feet AMSL.
- The project would be located outside the boundaries of Military Operations Areas or Restricted Areas.

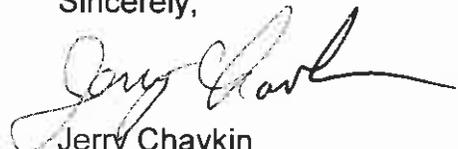
- The Tyler Long Range Joint Use Radar Site (ARSR) is within 60 NM (12.05 NM northwest) of the search area centerpoint. Impact to Air Defense and Homeland Security radars is highly likely. (Red Zone on FAA/DOD Preliminary Screening Tool). Further radar impact study is recommended.
- Minimal to no impact to Weather Surveillance Radar-1988 Doppler (WSR-88D) weather radar operations. Further radar impact is not necessary.
- The following list of Stoneray MN Project Sectors indicates the vertical limits of each procedure:
  - Sector A – 2300' AMSL – Pipestone Municipal NDB Runway 36 Procedure Turn Area
  - Sector B – 2400' AMSL - MVA
- Within Sectors A and B, a 398 feet AGL wind turbine should be approvable and receive a Determination of No Hazard from the FAA, notwithstanding any radar limitations.

Additionally, any structure over 200 feet AGL, in this case the turbines, requires notice to the FAA and also would require lighting in accordance with FAA Advisory Circular (AC) 70/7460-1K, change 2. After suitable locations are selected and at your request, ASI can handle the FAA filing process pursuant to the notice requirements of FAR Part 77 and follow-up until the No Hazard Determinations are issued by the FAA. We will be able to negotiate selective lighting so that not all of the turbines would require the extra expense of installing and maintaining lights.

FAA makes changes to the National Aviation Systems everyday. New approaches are published, departure procedures are changed, new runways are planned, MVAs are modified, etc. Therefore, it is possible for the study findings to become obsolete in a relatively short time period. We recommend that prior to filing specific sites within the study area, the study findings be reviewed for currency. Studies greater than 12 months old should automatically be re-visited and their findings confirmed.

Our findings are intended as a planning tool, in conjunction with the resolution of other pertinent issues. Actual construction activities are not advisable until the FAA Determinations of No Hazard are issued.

Sincerely,



Jerry Chavkin  
Vice-President, Airspace Operations

Attachments