
Transportation Committee

HB 2295

Brief Description: Encouraging the use of electric or hybrid-electric aircraft for regional air travel.

Sponsors: Representatives Slatter, Fey, McBride, Dolan, Macri and Doglio.

Brief Summary of Bill

- Directs the Department of Transportation to adopt stated goals for the use of electric or hybrid-electric aircraft in commercial air travel in Washington.
- Requires the Department of Transportation to provide a biennial report to the Legislature describing the state's progress toward achieving the goals.
- Directs the Department of Transportation to convene a work group to analyze the current state and future needs of the electric aircraft industry and develop a plan for achieving the goals.
- Updates the Department of Transportation's general supervision over aeronautics to include aeronautics involving electrically powered aircraft.

Hearing Date: 1/11/18

Staff: Patricia Hasan (786-7292).

Background:

The Department of Transportation (WSDOT) has general supervision over aeronautics within Washington. It is directed to encourage, foster, and assist in the development of aeronautics in Washington and to encourage the establishment of airports and air navigation facilities. Air navigation facilities are used to provide aid in air navigation and include any structures, mechanisms, lights, beacons, markers, communicating systems, or other instruments or devices used as an aid to safe taking-off, navigation, and landing of an aircraft or of the safe operation and maintenance of an airport. The WSDOT is also directed to cooperate with and assist the federal government, municipalities of Washington, and other bodies in developing aeronautics.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.

The WSDOT maintains the statewide Washington Aviation System Plan (WASP) and updates it as necessary with findings from studies of the performance and interaction of Washington's aviation system. The most recent update was completed in July 2017 and includes discussion on emerging trends and issues in aircraft innovation that the WSDOT anticipates will become relevant during the next 20 years. According to the WASP, electrically powered aircraft is one such innovation that is likely to become more widespread. Aircraft with electric motors have been under development since the 1970s. Currently, these aircraft are used primarily for experiments and demonstrations; however, the WASP acknowledges that advances in lightweight motors and batteries with increased power supply will make electric aircraft more feasible in a broader scope. The WASP shows the anticipated industry transition to electric aircraft to begin with trainer class aircraft, then move to personal vertical take-off and landing aircraft, and finally shift to commercial grade aircraft. Anticipated infrastructure need to accommodate electric aircraft is also presented in the WASP. As electric aircraft become part of the aviation industry, infrastructure requirements will be driven by the need to allow for battery exchange or recharging at a station while an aircraft is parked at the airport apron (where passengers board the aircraft) or in a hangar. Fast chargers or battery exchange would likely be the most common method for commercial operations that require short turnaround times for aircraft.

In 2016 the Federal Aviation Administration (FAA) revised the airworthiness standards for normal, utility, acrobatic, and commuter category airplanes under 14 CFR Part 23 by replacing prescriptive design requirements with performance-based airworthiness safety standards. In the Notice of Proposed Rulemaking, the FAA noted that the former regulations did not account for airplanes designed with new technologies, such as electric propulsion systems. Formerly, a manufacturer of an electric aircraft would not have met the standards for design requirements and would have needed to demonstrate that its design should be exempt from the particular regulatory standard. The FAA has replaced the design requirements with performance- and risk-based airworthiness standards for airplanes with a maximum seating capacity of 19 passengers or less and a maximum take-off weight of 19,000 pounds or less, which covers normal, utility, acrobatic, and commuter category airplanes.

Summary of Bill:

The WSDOT is given general supervision over aeronautics that involve electrically powered aircraft in Washington and must adopt the following goals:

- by 2030, 30 percent of arrivals and departures from airports in Washington involving commercial flights between 100 and 1,000 miles must be completed by aircraft that are powered at least partially by electrical propulsion systems, and
- by 2040, 50 percent of arrival and departures from airports in Washington involving commercial flights between 100 and 1,500 miles must be completed by aircraft that are powered at least partially by electrical propulsion systems.

The WSDOT must report to the Legislature on Washington's progress toward achieving the goals every two years beginning on January 1, 2025. The WSDOT must also convene a work group comprised of members from the electric aircraft industry, the aircraft manufacturing industry, and the airline industry to analyze the current state of the electric aircraft industry and available infrastructure and to develop a sustainable plan to achieve the adopted goals. The work group

must submit a report with its findings and recommendations to the transportation committees of the Legislature by December 1, 2019, and the work group expires on July 1, 2020.

Appropriation: None.

Fiscal Note: Available.

Effective Date: The bill takes effect 90 days after adjournment of the session in which the bill is passed.