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AVIATION ENERGY POLICY STATEMENT
ONLINE TRAINING BY KRISHNAJI PAWAR
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MODULE L1

Introduction and Course Outline

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AVIATION ENERGY POLICY STATEMENT

This course focuses on airport energy management, encompassing topics such as the Aviation Energy Policy Statement, the Environmental and Energy Policy Framework and Principles, key environmental and energy goals for aviation, strategies for achieving these goals, a sample energy policy for airports, and concluding with a summary and resources.

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BRIEF ABOUT ME

Krishnaji PAWAR



CEO & FOUNDER

Krishnaji Pawar is the founder and CEO of Beyond Smart Cities. Before being named CEO in January 2020, Krishnaji held leadership roles at Beyond Smart Cities in both Sustainability and Energy & Environmental Consultancy.

Krishnaji Pawar specializes in developing sustainable design strategies for green building certification systems such as LEED and GSAS, airport sustainability, energy and water conservation, commissioning, environmental impact assessment, and environmental management systems for smart cities, smart buildings, and smart airport development.

Since December 2007, he has been in charge of 17.86 billion square feet of green building/energy modeling consulting in the UAE, Qatar, Saudi Arabia, and India.

Learning Objectives

- Course Overview and Introduction
- Aviation Energy Policy Statement
- Environmental and Energy Policy Framework and Principles
- Key Aviation Environmental and Energy Goals
- Aviation Environmental and Energy Strategies
- Sample Energy Policy for Airports
- Summary and Resources

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INTRODUCTION

- The Aviation Energy Policy Statement outlines goals, strategies, and principles for sustainable energy use in the aviation sector.
- It emphasizes the need for efficiency and reduced environmental impact as air travel's global significance grows.
- Key objectives include promoting energy efficiency, lowering greenhouse gas emissions, and developing alternative energy sources.
- The aviation industry contributes significantly to carbon emissions, accounting for about 2-3% of global emissions, necessitating a focus on sustainable practices.
- Economic viability is a concern, as energy costs affect airline profitability; efficient fuel consumption can reduce operational costs.
- Energy security is essential amid volatile supplies; diversification through sustainable aviation fuels (SAFs) and electric propulsion is encouraged.

AVIATION ENERGY POLICY STATEMENT

- Strategies for implementation include investment in research and development for new technologies, regulatory frameworks to enforce sustainable practices, and public-private partnerships to foster innovation.
- Alternative fuels, particularly SAFs, are critical to reducing lifecycle emissions compared to traditional jet fuels, with potential carbon emission reductions of up to 80%.
- The policy serves as a guide for a sustainable aviation future, balancing environmental responsibilities with economic considerations.





KEY BENEFITS OF AVIATION ENERGY POLICY STATEMENTS



- Aviation energy policy statements are vital for promoting long-term sustainability in the civil aviation sector, targeting net-zero carbon emissions by 2050.
- They provide a framework to minimize environmental impacts including noise, air quality, and climate change while supporting the growth of air transportation.

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KEY BENEFITS OF AVIATION ENERGY POLICY STATEMENTS +

- Acceleration of Sustainable Aviation Fuel (SAF) deployment, with potential CO_2 emissions reduction of up to 80%.
- Encouragement of innovation in electric and hydrogen aircraft, along with enhanced efficiency in engines and airframes.
- Improvement of energy security through diverse sustainable fuels, reducing reliance on fossil fuels.
- Job creation driven by investments in SAF production, positively impacting rural economies.





KEY BENEFITS OF AVIATION ENERGY POLICY STATEMENTS



- Standardization and regulatory certainty fostered by frameworks like ICAO CORSIA, supporting global emission reduction goals.
- Enhancement of operational practices to achieve fuel savings and reduce emissions, including better air traffic management.
- Contribution to improved environmental performance, addressing non-CO_2 impacts, and enhancing local air quality.
- Policies promote a multi-stakeholder approach among governments, manufacturers, and airlines to address aviation's environmental challenges.

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KEY DEFINITION & MEANING

The process of overseeing and controlling energy use to improve efficiency and reduce costs.



Sustainability

The ability to maintain practices that do not harm the environment, ensuring resources are available for future generations.

Efficiency

The ability to achieve maximum productivity with minimum wasted effort or expense.

Energy Audit

An assessment that evaluates how much energy an airport uses and identifies ways to improve energy efficiency.

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- **Energy Efficiency: Using less energy to provide the same service or output, which helps to save money and reduce environmental impact.**
- **Greenhouse Gas Emissions: Gases released into the atmosphere that trap heat, contributing to global warming and climate change.**
- **Carbon Footprint: The total amount of greenhouse gases produced directly and indirectly by an individual, organization, or activity, usually measured in carbon dioxide equivalents.**
- **Operational Efficiency: The ability of an organization to deliver services effectively while minimizing waste and costs.**
- **Innovation: The process of creating new ideas, products, or methods that improve efficiency or effectiveness.**
- **Renewable Energy: Energy that comes from sources that are naturally replenished, such as sunlight, wind, and water.**
- **Alternative Fuels: Fuels that are not derived from traditional fossil fuels, often produced from renewable resources.**
- **Stakeholder: Any individual or group that has an interest in or is affected by a project or decision, such as employees, customers, or community members.**



- **Collaboration: Working together with others to achieve a common goal, often involving sharing resources and knowledge.**
- **Assessment: The process of evaluating or measuring something to understand its effectiveness or performance.**
- **Monitoring: The ongoing process of collecting data to track progress and ensure that goals are being met.**
- **Sustainable Aviation Fuel (SAF): Fuel made from renewable resources that can significantly reduce carbon emissions compared to traditional jet fuel.**
- **Infrastructure: The basic physical systems and structures needed for the operation of a society, such as buildings, roads, and utilities.**



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Beyond Smart Cities is the world's 1st Green Technology Marketplace, connecting millions of Sustainability Specialists, Green Building Specialists, Energy Specialists, Commissioning Specialists, Environment Specialists, Health & Safety Specialists, Fire Safety Specialists, Climate Change Specialists & Green Products/Technology Manufacturers with independent talent around the globe.

Our mission is to build and support a global community of experts with the highest professional standards in sustainability, green building, energy, commissioning, environment, health & safety, fire safety, climate change, GHG accounting, carbon auditing, and GHG emissions management.

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