

## AN OVERVIEW OF ENVIRONMENTAL ISSUES ASSOCIATED WITH WIND ENERGY

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### ABSTRACT

*Wind energy, which is considered one of the most mature renewable energy sources, has seen tremendous growth in recent years. Many nations have shown interest in using wind power, although many are worried about the wind farms' environmental effect. The rapid expansion of the wind energy sector in many parts of the globe, particularly in developing nations and environmentally sensitive areas, requires a thorough knowledge of wind farm-induced environmental effects. In this article, previous studies were summarized to evaluate the environmental problems created by wind farms. This paper explored available mitigation strategies for reducing these negative environmental effects. The goal of this document is to offer wind energy planners and developers with up-to-date information on environmental problems connected with wind energy development, as well as mitigation methods.*

**KEYWORDS:** *Animals, Associated, Environment, Issues, Wind Energy.*

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### REFERENCES

1. M. Salomón, "Renewable Energy Technology: Introduction to Renewable Energy Technology," Master Sustain. Energy Eng. KTH R. Inst. Technol., 2013.
2. M. E. El-Hawary, "The smart grid - State-of-the-art and future trends," Electr. Power Components Syst., 2014, doi: 10.1080/15325008.2013.868558.
3. R. P. Walker and A. Swift, Wind Energy Essentials: Societal, Economic, and Environmental Impacts. 2015.
4. S. Abu-Sharkh et al., "Can microgrids make a major contribution to UK energy supply?," Renewable and Sustainable Energy Reviews. 2006, doi: 10.1016/j.rser.2004.09.013.
5. R. P. Walker and A. Swift, Wind Energy Essentials. 2015.
6. T. K. Ghosh and M. A. Prelas, Energy resources and systems. 2009.
7. E. B. Arnett and M. D. Tuttle, "Cooperative efforts to assess the impacts of wind turbines on bats," Bat Res. News, 2004.
8. M. E. El-Hawary, "The Smart Grid—State-of-the-art and Future Trends, Electric Power Components and Systems," Electr. Power Components Syst., 2014.
9. G. Dudziak, C. Kolliatsas, J. Schaefer, and N. Myers, "Accelerating the deployment of offshore renewable energy technologies (ADORET) - Presentation, findings and

recommendations,” 2011, doi: 10.1115/OMAE2011-49193.

10. T. Bohnenstengel, “Niche segregation in two sympatric gleaning bat species *Myotis bechsteini* and *Plecotus auritus*,” *Eco-Ethology*, 2006.