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HIGH ALTITUDE WIND RESOURCE IN THE MIDDLE EAST Does airborne wind energy make sense in oil-exporting countries? Chak Man Andrew Yip, Udaya B. Gunturu, Georgiy L. Stenchikov

BACKGROUND

Why airborne wind energy (AWE)?

• Low oil price calls for economic savings and industrial

QUESTIONS

DATA

Resolution: 0.5° x 0.625° x 13 (1000mb - 700mb) Temporal resolution: 3 hours



METHOD





Definition of wind speed



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CONCLUSION

• Higher wind speed occurs closer to surface in July in NE and SE of the Arabian Peninsula Various wind regimes identified through clustering of long-term data may inform regional integration studies, e.g., the clusters (5, 8) spanning the GCC Interconnection Grid Preliminary AWE potential estimated in the Middle East points to further characterization through downscaling, especially in Oman and Saudi Arabia

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FURTHER INFORMATION



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