

Mark Leybourne

Position/Department/Division/Institution/Organization

Senior Energy Specialist – Energy Sector Management Assistance Program (ESMAP), World Bank

Country

USA (Washington, D.C.)

Career history

Mark is the co-lead of the World Bank Group's Offshore Wind Development Program. He is part of the ESMAP (Energy Sector Management Program) team within the World Bank and he has worked in the offshore renewable energy sector for the past 13 years. He is also part of the team delivering ESMAP's Green Hydrogen Program. His previous role was at an international energy and environmental consultancy, where he was leading engineering and environmental advisory teams on the design and planning of offshore wind projects. He has extensive experience in supporting the development of new offshore wind markets, having worked with the governments of: China, India, Korea, Taiwan, Turkey, Jersey and Barbados, to help establish supportive policies and undertake feasibility studies. Mark has a PhD in offshore renewable energy and a degree in Aerospace Engineering, both from the University of Southampton, UK.

Awards/Publications

LEYBOURNE, M., BATTEN, W. M. J., BAHAJ, A. S., O'NIANS, J. & TRAYLOR, H. (2008). Preliminary findings from a laboratory scale model of a ducted wave energy converter. 10th World Renewable Energy Congress, Glasgow, UK.

LEYBOURNE, M., BATTEN, W. M. J., BAHAJ, A. S., O'NIANS, J. & MINNS, N. (2009). A Parametric Experimental Study of the 2D Performance of a Ducted Wave Energy Converter. 8th European Wave and Tidal Energy Conference, Uppsala, Sweden.

LEYBOURNE, M., BATTEN, W. M. J., BAHAJ, A. S., MINNS, N. & O'NIANS, J. (2010). Experimental and Computational Modelling of the OWEL Wave Energy Converter. 3rd International Conference on Ocean Energy, Bilbao, Spain.

LEYBOURNE, M., BATTEN, W. M. J., BAHAJ, A. S., MINNS, N. & O'NIANS, J. (2011). Preliminary design of the OWEL wave energy converter commercial demonstrator. World Renewable Energy Congress, Linköping, Sweden.

LEYBOURNE, M., BATTEN, W. M. J., BAHAJ, A. S., MINNS, N. & O'NIANS, J. (2012) Preliminary Design of the OWEL Wave Energy Converter Pre-Commercial Demonstrator. *Renewable Energy*. Available online 13 September 2012, ISSN 0960-1481, 10.1016/j.renene.2012.08.019.

BUSH, H., LEYBOURNE, M., HUSSEY, J. & MINNS, N. (2013). Environmental Considerations for the Development of a Multi-Technology, Tidal Array Site in England. 10th European Wave and Tidal Energy Conference, Aalborg, Denmark.

ROC, T., GREAVES, D., CONLEY, D.C. & LEYBOURNE, M. (2013). Optimising commercial-scale TEC arrays: genetic algorithm, Fractal & Eco-mimicry. 10th European Wave and Tidal Energy Conference, Aalborg, Denmark.

LEYBOURNE, M. (2013). Development and Evaluation of the Hydrodynamic Design of the OWEL Wave Energy Converter. EngD. Thesis. University of Southampton, UK

LEYBOURNE, M. (2016). India Ventures into Offshore Wind. *Energy Focus* – Spring 2016, EIC pp128-131

YATES, C.M. & LEYBOURNE, M. (2016). Indian offshore wind: ambitions, opportunities and challenges. Institution of Engineering and Technology (IET). *Eng. Technol. Ref.*, pp. 1–11. DOI: 10.1049/etr.2016.0114

HUSSEY, J., MINNS, N., LEYBOURNE, M. & ABUNDO, M. (2016). Reduction in the Cost of Tidal Energy Through the Exploitation of Lower Flow Resources. *Proc. of the 3rd Asian Wave & Tidal Energy Conference (AWTEC 2016)*. pp 662-666

LEYBOURNE, M. & HUSSEY, J. (2016) A Review of India's Developing Offshore Wind Market and Opportunities. *Proc. of the 3rd Asian Wave & Tidal Energy Conference (AWTEC 2016)*. pp 677-680

BAWN, G., LEBOE, D., JEDDERE-FISHER, S., CONRON, R. & LEYBOURNE, M. (2016). Design of a Floating Platform for Shallow Water Tidal Stream Energy Resources. *Proc. of the 3rd Asian Wave & Tidal Energy Conference (AWTEC 2016)*. pp 941-945

BAWN, G., LEBOE, D., JEDDERE-FISHER, S., CONRON, R. & LEYBOURNE, M. (2017). The Design Process for a Floating Platform Operating in Shallow Water Tidal Flows with Vertical Axis Turbines. METS, USA

YATES, C. & LEYBOURNE, M. (2019). Financing Offshore Wind in Taiwan. *Journal of National Development Studies*. Vol. 18 No. 2, pp125-152. DOI:10.6164/JNDS.201906_18(2).0003

Areas of expertise

Offshore wind, wave and tidal energy, energy project development, engineering, policy and strategy.