

JOINT EVENT

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### World markets for conventional and advanced biofuels over the next five years

Production of transport biofuels grew by just 2% in 2017. To achieve the 2030 SDS target, use of biofuels needs to triple, driven by cost reductions of advanced biofuels, widespread sustainability governance and more adoption in aviation and marine transport. This presentation provides an overview of the market prospects for conventional biofuels over the next five years. It would analyse the current status of deployment and costs for novel advanced biofuels. It would also draw comparisons with electric cars, the extent of their renewable electricity utilisation and decarbonisation potential. It would include the contribution of renewables to road transport demand over the next 5 years and focus on the main biofuels available to decarbonise road freight, now and in the long term. Finally, it will present a case study from India, focusing on ethanol-based chemicals.



### Recent Publications

1. Asthana, A; Menard, Y; Sessiecq, P; Patisson, F; Modeling On-Grate MSW Incineration with Experimental Validation in a Batch Incinerator, *Ind. Eng. Chem. Res.*, 49 (16), pp 7597–7604, 2010.
2. Asthana, A; Falcoz, Q; Sessiecq, P; Patisson, F; Modeling Kinetics of Cd, Pb, and Zn Vaporization during Municipal Solid Waste Bed Incineration, *Ind. Eng. Chem. Res.*, 49, 7605–7609, 2010.
3. Ménard, Y; Asthana, A; Patisson, F; Sessiecq, P; Ablitzer, D; Thermodynamic study of heavy metals behavior during municipal waste incineration, *Process Safety and Environmental Protection*, 84 (B4) 290 -296, 2006.
4. Asthana, A; Ménard, Y; Patisson, F; Sessiecq, P; Ablitzer, D; A 2-D mathematical model of on-grate municipal solid waste combustion, [Proceedings] Sohn International Symposium on Advanced Processing of Metals and Materials, San Diego, U.S.A., 2006.
5. Ménard, Y; Asthana, A; Patisson, F; Sessiecq, P; Ablitzer, D; Thermodynamic study of heavy metals behavior during municipal waste incineration, [Proceedings] 1st International Conference on Engineering for Waste Treatment, Albi, France, 2005.

### Biography

Dr Abhishek Asthana (CEng, MIET, FHEA, PhD) is Reader in Energy Engineering and the Director of Hallam Energy, the energy research group at Sheffield Hallam University (SHU). In 2009, he co-founded Hallam Energy and has since led and delivered more than 50 projects of industrial energy research, consultancy and knowledge transfer. He has won £3.5 million funding for SHU, co-authored 37 scientific papers and 1 book, invented 4 patents and developed 5 commercial software packages. He is the course director for BEng Energy Engineering and MEng and BEng Chemical Engineering programmes at the university. In 2015, he established a Doctoral Training Alliance (DTA) in Energy to train PhD students conducting energy research. The DTA has now grown to 90 PhD students and 180 Supervisors across 19 British Universities in the University Alliance, UK, and Abhishek is currently its Deputy Director. He also recently led the alliance to success in winning €6.5 Million funding from the European Commission's Marie Skłodowska-Curie Actions COFUND to further expand the DTA programme.

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