# David L Mccollum

## List of Publications by Citations



| | | | |
|---|---|---|---|
| 59 papers | 5,133 citations | 36 h-index | 67 g-index |
| 67 ext. papers | 6,381 ext. citations | 18.1 avg, IF | 5.53 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 59 | Biophysical and economic limits to negative CO2 emissions. *Nature Climate Change*, **2016**, 6, 42-50 | 21.4 | 684 |
| 58 | A low energy demand scenario for meeting the 1.5 ℃ target and sustainable development goals without negative emission technologies. *Nature Energy*, **2018**, 3, 515-527 | 62.3 | 428 |
| 57 | The marker quantification of the Shared Socioeconomic Pathway 2: A middle-of-the-road scenario for the 21st century. *Global Environmental Change*, **2017**, 42, 251-267 | 10.1 | 349 |
| 56 | Mapping interactions between the sustainable development goals: lessons learned and ways forward. *Sustainability Science*, **2018**, 13, 1489-1503 | 6.4 | 228 |
| 55 | Locked into Copenhagen pledges Implications of short-term emission targets for the cost and feasibility of long-term climate goals. *Technological Forecasting and Social Change*, **2015**, 90, 8-23 | 9.5 | 222 |
| 54 | Energy investment needs for fulfilling the Paris Agreement and achieving the Sustainable Development Goals. *Nature Energy*, **2018**, 3, 589-599 | 62.3 | 207 |
| 53 | Probabilistic cost estimates for climate change mitigation. *Nature*, **2013**, 493, 79-83 | 50.4 | 207 |
| 52 | Energy and environment. Transport: A roadblock to climate change mitigation?. *Science*, **2015**, 350, 911-2 | 33.3 | 203 |
| 51 | Connecting the sustainable development goals by their energy inter-linkages. *Environmental Research Letters*, **2018**, 13, 033006 | 6.2 | 168 |
| 50 | 2020 emissions levels required to limit warming to below 2 ℃. *Nature Climate Change*, **2013**, 3, 405-412 | 21.4 | 132 |
| 49 | Post-2020 climate agreements in the major economies assessed in the light of global models. *Nature Climate Change*, **2015**, 5, 119-126 | 21.4 | 132 |
| 48 | Meeting an 80% reduction in greenhouse gas emissions from transportation by 2050: A case study in California. *Transportation Research, Part D: Transport and Environment*, **2009**, 14, 147-156 | 6.4 | 131 |
| 47 | Climate policies can help resolve energy security and air pollution challenges. *Climatic Change*, **2013**, 119, 479-494 | 4.5 | 105 |
| 46 | Achieving California's 80% greenhouse gas reduction target in 2050: Technology, policy and scenario analysis using CA-TIMES energy economic systems model. *Energy Policy*, **2015**, 77, 118-130 | 7.2 | 99 |
| 45 | Fossil resource and energy security dynamics in conventional and carbon-constrained worlds. *Climatic Change*, **2014**, 123, 413-426 | 4.5 | 99 |
| 44 | 2 ℃ and SDGs: united they stand, divided they fall?. *Environmental Research Letters*, **2016**, 11, 034022 | 6.2 | 99 |
| 43 | Improving the behavioral realism of global integrated assessment models: An application to consumers vehicle choices. *Transportation Research, Part D: Transport and Environment*, **2017**, 55, 322-342 | 6.4 | 97 |

| | | | |
|---|---|---|---|
| 42 | Stranded on a low-carbon planet: Implications of climate policy for the phase-out of coal-based power plants. *Technological Forecasting and Social Change*, **2015**, 90, 89-102 | 9.5 | 93 |
| 41 | Achieving deep reductions in US transport greenhouse gas emissions: Scenario analysis and policy implications. *Energy Policy*, **2009**, 37, 5580-5596 | 7.2 | 90 |
| 40 | Integrating Global Climate Change Mitigation Goals with Other Sustainability Objectives: A Synthesis. *Annual Review of Environment and Resources*, **2015**, 40, 363-394 | 17.2 | 71 |
| 39 | Deep greenhouse gas reduction scenarios for California Strategic implications from the CA-TIMES energy-economic systems model. *Energy Strategy Reviews*, **2012**, 1, 19-32 | 9.8 | 71 |
| 38 | Interaction of consumer preferences and climate policies in the global transition to low-carbon vehicles. *Nature Energy*, **2018**, 3, 664-673 | 62.3 | 69 |
| 37 | Limited emission reductions from fuel subsidy removal except in energy-exporting regions. *Nature*, **2018**, 554, 229-233 | 50.4 | 66 |
| 36 | Transport electrification: A key element for energy system transformation and climate stabilization. *Climatic Change*, **2014**, 123, 651-664 | 4.5 | 66 |
| 35 | Implications of various effort-sharing approaches for national carbon budgets and emission pathways. *Climatic Change*, **2020**, 162, 1805-1822 | 4.5 | 64 |
| 34 | CO2 emission mitigation and fossil fuel markets: Dynamic and international aspects of climate policies. *Technological Forecasting and Social Change*, **2015**, 90, 243-256 | 9.5 | 58 |
| 33 | Policy trade-offs between climate mitigation and clean cook-stove access in South Asia. *Nature Energy*, **2016**, 1, | 62.3 | 56 |
| 32 | THE DISTRIBUTION OF THE MAJOR ECONOMIES' EFFORT IN THE DURBAN PLATFORM SCENARIOS. *Climate Change Economics*, **2013**, 04, 1340009 | 0.9 | 51 |
| 31 | ENERGY INVESTMENTS UNDER CLIMATE POLICY: A COMPARISON OF GLOBAL MODELS. *Climate Change Economics*, **2013**, 04, 1340010 | 0.9 | 50 |
| 30 | COVID-19 recovery funds dwarf clean energy investment needs. *Science*, **2020**, 370, 298-300 | 33.3 | 50 |
| 29 | Detailed assessment of global transport-energy models structures and projections. *Transportation Research, Part D: Transport and Environment*, **2017**, 55, 294-309 | 6.4 | 48 |
| 28 | The UN's 'Sustainable Energy for All' initiative is compatible with a warming limit of 2 C. *Nature Climate Change*, **2013**, 3, 545-551 | 21.4 | 45 |
| 27 | Synergies in the Asian energy system: Climate change, energy security, energy access and air pollution. *Energy Economics*, **2012**, 34, S470-S480 | 8.3 | 44 |
| 26 | Air-pollution emission ranges consistent with the representative concentration pathways. *Nature Climate Change*, **2014**, 4, 446-450 | 21.4 | 41 |
| 25 | Assessing the Feasibility of Global Long-Term Mitigation Scenarios. *Energies*, **2017**, 10, 89 | 3.1 | 37 |

| | | | |
|---|---|---|---|
| 24 | Comparison and interactions between the long-term pursuit of energy independence and climate policies. *Nature Energy*, **2016**, 1, | 62.3 | 36 |
| 23 | Quantifying uncertainties influencing the long-term impacts of oil prices on energy markets and carbon emissions. *Nature Energy*, **2016**, 1, | 62.3 | 29 |
| 22 | Comparing future patterns of energy system change in 2 °C scenarios with historically observed rates of change. *Global Environmental Change*, **2015**, 35, 436-449 | 10.1 | 29 |
| 21 | Balancing clean water-climate change mitigation trade-offs. *Environmental Research Letters*, **2019**, 14, 014009 | 6.2 | 29 |
| 20 | Future energy system challenges for Africa: Insights from Integrated Assessment Models. *Energy Policy*, **2015**, 86, 705-717 | 7.2 | 26 |
| 19 | ENERGY SECURITY OF CHINA, INDIA, THE E.U. AND THE U.S. UNDER LONG-TERM SCENARIOS: RESULTS FROM SIX IAMs. *Climate Change Economics*, **2013**, 04, 1340011 | 0.9 | 25 |
| 18 | Mitigation choices impact carbon budget size compatible with low temperature goals. *Environmental Research Letters*, **2015**, 10, 075003 | 6.2 | 23 |
| 17 | Energy Pathways for Sustainable Development1205-1306 | | 19 |
| 16 | A MULTI-MODEL ANALYSIS OF THE REGIONAL AND SECTORAL ROLES OF BIOENERGY IN NEAR- AND LONG-TERM CO2 EMISSIONS REDUCTION. *Climate Change Economics*, **2013**, 04, 1340014 | 0.9 | 16 |
| 15 | Interactions between social learning and technological learning in electric vehicle futures. *Environmental Research Letters*, **2018**, 13, 124004 | 6.2 | 15 |
| 14 | Multi-criteria analysis of nuclear power in the global energy system: Assessing trade-offs between simultaneously attainable economic, environmental and social goals. *Energy Strategy Reviews*, **2015**, 8, 45-55 | 9.8 | 14 |
| 13 | A comparison of low carbon investment needs between China and Europe in stringent climate policy scenarios. *Environmental Research Letters*, **2019**, 14, 054017 | 6.2 | 12 |
| 12 | Why have multiple climate policies for light-duty vehicles? Policy mix rationales, interactions and research gaps. *Transportation Research, Part A: Policy and Practice*, **2020**, 135, 309-326 | 3.7 | 12 |
| 11 | A short note on integrated assessment modeling approaches: Rejoinder to the review of "Making or breaking climate targets – The AMPERE study on staged accession scenarios for climate policy" *Technological Forecasting and Social Change*, **2015**, 99, 273-276 | 9.5 | 10 |
| 10 | Decarbonization pathways and energy investment needs for developing Asia in line with well below 2 °C. *Climate Policy*, **2020**, 20, 234-245 | 5.3 | 9 |
| 9 | Beyond Rio: Sustainable energy scenarios for the 21st century. *Natural Resources Forum*, **2012**, 36, 215-230 | 3.0 | 4 |
| 8 | Future impacts of coal distribution constraints on coal costs. *Transportation Research, Part E: Logistics and Transportation Review*, **2009**, 45, 460-471 | 9 | 2 |
| 7 | Reply to: Why fossil fuel producer subsidies matter. *Nature*, **2020**, 578, E5-E7 | 50.4 | 2 |

# List of Publications

| | | | |
|---|---|---|---|
| 6 | Simulating automakers response to zero emissions vehicle regulation. *Transportation Research, Part D: Transport and Environment*, **2021**, 94, 102789 | 6.4 | 2 |
| 5 | Intergovernmental Panel on Climate Change: Transparency and integrated assessment modeling. *Wiley Interdisciplinary Reviews: Climate Change*, **2021**, 12, e727 | 8.4 | 1 |
| 4 | Deep decarbonization impacts on electric load shapes and peak demand. *Environmental Research Letters*, **2021**, 16, 094054 | 6.2 | 1 |
| 3 | Technology Portfolios: Modelling Technological Uncertainty and Innovation Risks89-102 | | 0 |
| 2 | Demand Side Management: A Case for Disruptive Behaviour. *Advances in Intelligent Systems and Computing*, **2018**, 47-59 | 0.4 | |
| 1 | Application of experience curves and learning to other fields **2020**, 49-62 | | |