Oliver Garnett

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ENERGY AND ENVIRONMENTAL ECONOMICS, INC.   San Francisco, CA
Consultant II

Mr. Garnett joined E3 in 2017 after completing his Master of Economics and Policy of Energy and the Environment at University College London (UCL). He is a member of E3's Distributed Energy Resources (DER) group, where his recent work has focused on quantifying the grid and ratepayer benefits of electric vehicles (EVs) and charging infrastructure, demand response program design, and energy storage asset valuation. He brings with him experience from across the energy industry, from demand response aggregation in the UK, to data acquisition and analytics for a multinational oil field services company, to project management for a biomass start-up in East Africa. He also has extensive modelling experience in Python, R, and MATLAB. Select E3 projects include:

o **EPRI Value of Vehicle-to-Grid (V2G) in California, 2018.** Expanded the RESTORE optimization tool's EV modelling functionality to analyze the grid benefits of distribution-aware vehicle-to-grid (V2G) services for a fleet of EVs, finding that V2G capability provided significant additional value compared to smart charging.

o **New York State Energy Research and Development Authority Energy Storage Roadmap, 2018.** Helped identify the most promising applications of energy storage to enable New York to achieve its goal of installing 1,500 MW of energy storage by 2025, with a focus on demand response analysis. Supported development of E3's RESTORE optimization tool for NYSERDA and trained NYSERDA staff in using the tool.

o **Electric Vehicle Aggregator and the California PUC, 2018 – Present.** Evaluated an EV aggregation pilot project as a potential resource for frequency regulation in the California ISO. Performed an in-depth investigation of frequency regulation market rules to calculate resource performance, penalties, and revenues for the EV coalition.

o **Tata Power Dehli Distribution Limited (TPDDL), 2018 – Present.** Performing cost-benefit analysis to identify an optimal set of DER solutions, with a focus on EVs, and customizing E3's Integrated Demand Side Management (iDSM) tool for TPDDL's system on a project funded by the U.S. Trade and Development Agency (USTDA).

o **California Public Utilities Commission, Evaluation of California's Self-Generation Incentive Program for Advanced Energy Storage Systems, 2017 – 2018.** Conducted optimal dispatch studies to evaluate the efficacy of California's Self Generation Incentive Program (SGIP) for behind-the-meter energy storage.

KIWI POWER   London, UK
Demand Response Analyst   April 2017 – September 2017

KiWi Power is the UK's leading demand response aggregator. Whilst studying at UCL, worked part time within the operations team monitoring sites across the UK that participate in demand response programs

offered by the National Grid such as the Short-Term Operating Reserve (STOR), Capacity Market, and Frequency Response programs.

- o Monitored the entire UK portfolio – around 150 MW of capacity installed in over 50 sites across the UK – and provided operational support to the French team
- o Liaised directly with clients and the National Grid to ensure sufficient load reduction during demand response events
- o Worked with the technology team to aid the transition to a new software platform

INYENYERI   Kigali, Rwanda
Project Manager   July 2016 – September 2016

Interned at a clean cookstove and biomass startup with a novel utility-style business model that offers an affordable, clean, and modern cooking experience to low income consumers in Rwanda.

- o Managed a $10M grant application for which Inyenyeri was the lead applicant with 12 partner organisations
- o Created a discounted cash-flow model to forecast our customer base expansion under different joint-venture and franchising scenarios

BAKER HUGHES INC.   Aberdeen, UK
Field Engineer   September 2013 – July 2016

Joined the graduate program within the drilling services product line, specialising in the acquisition, processing, and analysis of surface and logging data during drilling operations. Rotated through different office and rig-site roles.

- o Extensive offshore experience in surface and sub-surface data acquisition and analysis with eight operators; won award for exceptional service
- o Selected for a competitive pricing analysis project; used data from 11 wells to optimise pricing for new performance-based contracts, creating a tool used by the UK product line's largest client
- o Re-designed a depth calibration model used worldwide across the company
- o Selected to work as an onshore operations coordinator for a new client, completing four wells. Responsible for operations planning, field engineer management, equipment procurement, and logistics. Formed a strong client relationship and negotiated a service upsell which added 8% in revenue to one well.
- o Re-structured the deliverables quality control department, cutting operating costs by 23% and significantly improving departmental KPIs

RIVERSTONE HOLDINGS LLC   London, UK
Analyst   Summer 2011

Private equity firm targeting the renewables, and oil and gas sectors.

- o Identified and evaluated potential opportunities in the European gas storage market
- o Through financial modelling and research, informed investment decisions on two projects: biofuels in Ukraine and shipping in Asia

Education

University College London London, UK
MSc Economics and Policy of Energy and the Environment 2017

Imperial College London London, UK
MSci Chemistry 2013
Awarded Best Final Research Presentation 2013

Publications

Wood, S., Garnett, O., Tokmoldin, N., Tsoi, W.C., Haque, S.A. and Kim, J.-S., "In situ formation of organic-inorganic hybrid nanostructures for photovoltaic applications," *Faraday Discussions*, 174, 2014.

Citizenship

United Kingdom
United States