

**NAME OF STAFF** Nicole Rosenthal

**EMPLOYER** DHInfrastructure

**DATE OF BIRTH** 1991-04-18 **NATIONALITY:** United States

<b>EDUCATION</b>	<u>School, college and/or University Attended</u>	<u>Degree/certificate or other specialized education obtained</u>	<u>Date obtained</u>
	University of Massachusetts, Amherst	M.S. in Resource Economics	2015
	Westfield State University	B.A. in Economics	2013
	Westfield State University	B.S. in Business	2013

**MEMBERSHIP IN PROFESSIONAL SOCIETIES** New England Women in Energy and the Environment, American Evaluation Association

**OTHER TRAINING** Eastern NARUC Utility Rate School  
Kyrgyzstan, Tajikistan, United States, Albania, Bosnia and Herzegovina, Kazakhstan, The former Yugoslav Republic of Macedonia, Serbia, Kiribati, Tanzania, Colombia, Egypt, India, Kenya, Pakistan, Peru, Philippines, Senegal, Uganda, Ukraine, Vietnam, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Congo, The Democratic Republic of the, Cote d'Ivoire, Ethiopia, Gambia, Guinea, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Nigeria, Sierra Leone, South Africa, Zambia, Turkey, Armenia, Azerbaijan, Republic of Georgia, Turkmenistan, Uzbekistan, Timor-Leste, Nauru, Afghanistan, Mongolia, Belarus, Montenegro, Kosovo

<b>LANGUAGE &amp; DEGREE OF PROFICIENCY</b>	<b>Language</b>	<b>Speaking</b>	<b>Reading</b>	<b>Writing</b>
	English	Good	Good	Good

**EMPLOYMENT RECORD**

**From:** Jan 2015 **To:** Current  
**Employer:** DHInfrastructure  
**Position held:** Manager

**From:** Jan 2013 **To:** Jan 2015  
**Employer:** University of Massachusetts Amherst, Resource Economics Department  
**Position held:** Graduate Assistant

**PROJECT EXPERIENCE**

**Name of project:** Developing and Updating an Energy Sector Note for the Kyrgyz Republic

**Location:** Kyrgyzstan

**Client:** The World Bank

**Main project features:** DHInfrastructure wrote a policy note in 2013 evaluating the most important technical, financial, and policy-related challenges in the Kyrgyz Republics energy sector and recommending how best to address those challenges. DHInfrastructure provided two previous updates to this note, with company-specific and sector data from 2016 and 2017. The World Bank wanted another update of this policy note, to reflect 2018 data. The update informed the evaluation of options for the tariff path considered by the regulator and informed dialog with government and regulator on policy changes, including risk mitigation methods for revenue variations caused by cyclical hydrologic conditions.

**Positions held:** Manager

**Activities performed:** Nicole updated cost of service models for the electricity and heating sectors to reflect current data and incorporated the true future cost of service if necessary CAPEX investments are made to address rehabilitation and additional capacity needs. She used these models to project cost-recovery tariffs through 2023 and the sector deficit under a baseline scenario and several tariff path scenarios. She assessed tariff path options, including lowering the lifeline threshold and gradually reducing cross-subsidies to residential customers. She also provided recommendations on policies for mitigating hydrologic risk, including tariff adjustments, cash reserves, a stabilization fund, contingency loans, and weather insurance.

**Name of project:** Tajikistan: Geospatial electrification analysis for the Gorno-Badakhshan Autonomous Oblast (GBO) and Khatlon regions

**Year:** 2019 to 2019

**Location:** Tajikistan

**Client:** The World Bank

**Main project features:** The World Bank wanted assistance developing recommendations to the Government of Tajikistan on ensuring last-mile access to electricity services in specified geographical locations in GBO and Khatlon regions. These recommendations were to be informed by a technical and economic analysis to identify technically feasible and economically least cost solutions for last-mile access in the specified regions and an investment plan for electrification of target settlements to meet their projected energy demand in 2020-2035.

**Positions held:** Manager

**Activities performed:** Nicole worked on all project outputs.

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**Name of project:** MD PSC Case 9486: WGL Infrastructure Replacement Plan

**Year:** 2018 to 2018

**Location:** United States

**Client:** Maryland's Office of People's Counsel

**Main project features:** Maryland's Strategic Infrastructure Development and Enhancement (STRIDE) program provides a cost recovery mechanism to incentivize local gas distribution companies to accelerate improvements in gas infrastructure. Washington Gas Light (WGL) filed a request to the Maryland Public Service Commission (PSC) to establish its second five-year plan (STRIDE 2 Plan) and associated surcharge. WGL's STRIDE 2 plan included separate transmission and distribution plans consisting of the same 11 categories being replaced under their existing distribution and transmission plans, as well as one new transmission asset category. Within its role as a consumer advocate, Maryland's Office of People's Counsel (OPC) intervened in the proceeding on behalf of WGL's residential consumers and wanted to hire a firm to support its staff with its review of WGL's proposed STRIDE 2 plan and surcharge recovery mechanism.

**Positions held:** Support Staff

**Activities performed:** Nicole worked on a pre-filed direct testimony on behalf of the OPC that focused on WGL's performance during its initial STRIDE program, its budgeting approach, and the STRIDE eligibility of the new transmission asset category. She reviewed WGL's expert witnesses' testimonies, prepared discovery requests, and drafted portions of the testimony.

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**Name of project:** IFC Indirect Impact Assessment Pilot

**Year:** 2018 to 2019

**Location:** Albania, Bosnia and Herzegovina, Kazakhstan, Macedonia, The former Yugoslav Republic of, Serbia

**Client:** International Finance Corporation (IFC)

**Main project features:** The International Finance Corporation had developed guidance materials and data collection tools to help operational teams in the Renewable Energy and Power Advisory Group assess and report the indirect impacts of their advisory services in the market. For this project, IFC wanted to pilot these documents and tools in five countries in the Eastern and Central Europe (ECA) region. The aim of this project is to train IFC operational teams in each market to use the tools and guidance to first collection data on market development and stakeholder sentiment and then to create a credible argument that attributes market development to IFC's intervention in that market.

**Positions held:** Evaluation Specialist

**Activities performed:** Nicole advised on the development of theories of change for each program and assisted with data analysis to support the attribution of indirect impacts to IFC's energy advisory services.

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**Name of project:** Preparation of the SREP Investment Plan for Kiribati

**Year:** 2018 to 2018

**Location:** Kiribati

**Client:**

**Main project features:** The Government of Kiribati requested assistance in the preparation of an Investment Plan, which would be used to apply for renewable energy project funding through the Climate Investment Fund's Scaling Up Renewable Energy Program (SREP). The primary objective of the Investment Plan was to identify renewable energy projects where SREP resources and other sources of funds could be used to overcome barriers to investment.

**Positions held:** Project Analyst

**Activities performed:** Nicole drafted a background section on Kiribatis energy sector for the Investment Plan. She also prepared a presentation for the inception mission, which provided an overview of SREP and a renewable energy viability assessment for the technologies under consideration.

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**Name of project:** Tariff and Affordability Study and Awareness for the Arusha Urban Water Supply and Sanitation Authority

**Year:** 2017 to 2018

**Location:** Tanzania

**Client:** AfDB

**Main project features:** The Arusha Urban Water Supply and Sanitation Authority (AUWSA) asked DHIInfrastructure to conduct a tariff and willingness-to-pay study as part of an African Development Bank (AfDB) funded Project to improve and expand the water and sanitation network in Arusha City. The two key components of the project included a cost-of-service study and a willingness-to-pay study to understand consumers' willingness to pay for AUWSA services. For the of the cost-of-service study, AUWSA wanted a financial model that they could use for future tariff filings to the water sector regulator, as well as to estimate the impact of increased debt service to its financial performance and on tariff levels. The willingness-to-pay component was conducted to help AUWSA understand consumers willingness to pay for water, sewerage, or septic tank vacuum truck services and to inform affordability concern should tariffs be increased.

**Positions held:** Data Analyst

**Activities performed:** Nicole advised on the survey design, and was responsible for checking and cleaning the response data, and modeling willingness to pay. Nicole used STATA to model willingness-to-pay (WtP) for improved piped water service, and estimated mean and median WtP. She also analyzed willingness to pay for sewerage and septic tank vacuum truck services. Nicole conduct additional analysis on the survey results (including reasons respondents were unwilling to pay more, preferred payment methods, preferred subsidy mechanisms, and drafted portions of the WtP section of the final report.

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**Name of project:** World Bank Cost Recovery Flagship Report

**Year:** 2017 to 2018

**Location:** Colombia, Egypt, India, Kenya, Pakistan, Peru, Philippines, Senegal, Tajikistan, Tanzania, Uganda, Ukraine, Vietnam

**Client:** The World Bank

**Main project features:** The World Bank's global knowledge program, Rethinking Power Sector Reforms, aims to update the thinking on power sector reforms, utilizing lessons learned from the past ten years of reforms. The program is centered around six themes: financial viability, utility restructuring, power markets, regulation, political economy and gas-to-power. Each theme focuses on 15 target countries: Colombia, Dominican Republic, Egypt, India, Kenya, Morocco, Pakistan, Peru, Philippines, Senegal, Tajikistan, Tanzania, Uganda, Ukraine, and Vietnam. The World Bank wanted assistance preparing country case studies and a thematic flagship report for the financial viability theme.

**Positions held:** Team Leader

**Activities performed:** Nicole analyzed the cost recovery models and utilities' financial statements to provide a complete picture of financial viability in the electricity sectors of each of the 15 countries. She drafted PowerPoint presentations and short notes for each county, and consolidated the findings from these case studies into a thematic report.

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**Name of project:** Africa Energy Strategy for the World Bank

**Year:** 2017 to 2018

**Location:** Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Congo, The Democratic Republic of the, Cote d'Ivoire, Ethiopia, Gambia, Guinea, Kenya, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Nigeria, Senegal, Sierra Leone, South Africa, Tanzania, Uganda, Zambia

**Client:** The World Bank

**Main project features:** The World Bank wanted assistance to compile a set of Country Engagement Notes for 26 African countries that would provide an overview of each country's energy sector, including past progress, ongoing challenges, and potential areas for World Bank engagement in the upcoming IDA cycle. The Notes would be incorporated into a regional Synthesis Note to summarize corporate and regional commitments in Africa as well as the Bank's current engagement strategies. These notes will inform World Bank operations during the IDA 18/19 period.

**Positions held:** Manager

**Activities performed:** Nicole worked on the design of a template for each Country Engagement note, to cover themes of energy access, security of supply, operational competence and financial viability, and maximizing financing. She reviewed

documents provided by the World Bank, to fill in these templates with key sector statistics, challenges, sector targets, and upcoming or potential World Bank engagements. She participated in meetings with each World Bank country team and incorporated feedback into a final set of notes. Nicole also drafted parts of the Regional SSA Power Sector Strategy for IDA 18 background paper, which consolidated each country's challenges and provided an overview of past World Bank operations and paradigm shifts for future engagement in the region.

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**Name of project:** Terminal Evaluation of the GEF-funded Geofund Turkey Project

**Year:** 2017 to 2017

**Location:** Turkey

**Client:** International Finance Corporation (IFC)

**Main project features:** The International Finance Corporation (IFC) asked DHInfrastructure to evaluate the Global Environmental Facility (GEF)-funded Geofund Turkey Project. The Geofund Turkey Project aimed to promote private sector led geothermal energy development by developing and piloting geothermal well productivity insurance and providing capacity building to developers to improve project quality and to financial institutions to appraise geothermal development projects. The objective of the evaluation was to: (1) elaborate on, and synthesize the lessons learned from the project that may help improve the selection, design, and implementation of future GEF and IFC activities; and (2) assess the potential and scope for future IFC interventions to address barriers to private sector geothermal development in Turkey and other countries.

**Positions held:** Evaluation Analyst

**Activities performed:** Nicole evaluated the Geofund Turkey Project in terms of its progress toward priorities, objectives and targets; its operations and processes; and its approach to developing and piloting geothermal well productivity insurance (GWPI) in Turkey's geothermal market. She provided advice on the project's theory of change and analyzed project documents to identify changes in target outcomes and impacts throughout the course of the project, which had several changes in scope. She also conducted interviews with stakeholders involved on the project.

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**Name of project:** ADB XARR Validation Report

**Year:** 2017 to 2017

**Location:** Pakistan

**Client:** Asian Development Bank (ADB)

**Main project features:** ADB's Independent Evaluation Department needed an independent validator to carry out a review of the Zorlu Energji Power Project as a part of its 2016-2017 work program for XARR validation.

**Positions held:** Manager

**Activities performed:** Nicole worked on drafting the XARR Validation Report (XVR) for the Zorlu Energji Power Project, including a summary of the project background; descriptions of the ratings and justifications provided in the XARR; interpretations of the evidence provided, leading to either an agreement or disagreement with the XARR ratings; alternative interpretations supported by ADB guidelines in the instances of disagreement; and a revised overall rating of the project.

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**Name of project:** Serbia Power System Study Component 2: Renewable Energy Economic and Policy Analysis

**Year:** 2017 to 2017

**Location:** Serbia

**Client:** The World Bank

**Main project features:** In the context of its preparation to become an EU member state, Serbia is taking on a number of energy sector reforms to address long-standing sector challenges. Electric Power Industry of Serbia (EPS) is being modernized to ensure long term profitability and competitiveness in the European market. The government has also committed to a renewable energy target of 27% in final energy consumption by 2020, with a particularly ambitious target for wind (500 MW by 2020). The Government introduced feed-in-tariffs (FiTs) for RE in 2009, provides capital subsidies for investment in RE, and has subscribed to the Clean Development Mechanism. A clear sector strategy is needed to unite the twin policy goals in the sector: fiscally responsible sector management and progress toward a clean energy future. The World Bank wanted to help the Government identify economic options for generation investment and network development over a 20-year time horizon, and assess the implications of RE integration on electricity end-user tariffs. The World Bank also wanted to analyze EPS' current financial condition, progress toward targets outlined in its Development Policy Loan, and tariff increases to achieve financial sustainability through 2025.

**Positions held:** Manager

**Activities performed:** Nicole updated an existing model that forecast's EPS' financial statements through 2025 in order to most accurately reflect the current situation in the sector, and conducted an analysis of the necessary yearly tariff increase required under several sensitivity scenarios. She created a PowerPoint of these results, and traveled to Belgrade to meet with EPS and the Ministry of Mining and Energy to gather data, refine the analysis, and discuss options for increasing the tariff. Using data provided by EPS, she assessed EPS' financial situation, progress toward Development Policy Loan targets, and areas where more work is still needed. She summarized these results in a memo. She also conducted research on RE uptake and RE policy in the country and the surrounding region and policy alternatives to the FIT. She consolidated this research, along with the results of a generation simulation/analysis (conducted by EKC) into a final PowerPoint.

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**Name of project:** Sierra Leone Regulatory Strengthening and Tariff Development

**Year:** 2017 to 2018

**Location:** Sierra Leone

**Client:** Millennium Challenge Corporation Coordinating Unit (MCCU)

**Main project features:** MCC wanted to support the Commissioners and technical staff of Sierra Leone's Electricity and Water Regulatory Commission (EWRC) in developing the skills and knowledge necessary for EWRC to become an effective, independent, and transparent regulator for the electricity and water sectors. Specifically, MCC wanted to develop a training program for EWRC's Board of Directors; develop a business plan for the regulator; develop key regulations and tariff methodologies for both sectors; provide substantial training and capacity building to EWRC staff; and provide ongoing advisory support through an embedded regulatory advisor. MCC hired AARC, with DHInfrastructure as subcontractor, to implement the project.

**Positions held:** Support Staff

**Activities performed:** Nicole drafted a uniform system of accounts for the electricity and water sectors of Sierra Leone and incorporated this system into the tariff filing documents.

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**Name of project:** Abengoa Kaxu Project Evaluation

**Year:** 2016 to 2017

**Location:** South Africa

**Client:** International Finance Corporation (IFC)

**Main project features:** Abengoa KaXu is a 100 MW power plant developed by Abengoa Solar South Africa Pty Ltd, in the Northern Cape Province of South Africa. Kaxu was the first operational private sector utility-scale CSP plant with storage in the developing world. After the first year of the plant's operation, IFC wanted an evaluation to inform IFC Blended Finance Unit, IFC management, CTF member countries, the climate finance community, and other key stakeholders of the development outcomes achieved by the project through design, construction and first year of operation. The evaluation would also gather baseline data for a potential second phase evaluation and would further assess the role that Kaxu project has played as part of the CTF South Africa Investment Plan as well as the Government of South Africa's Renewable Energy Independent Power Producer Procurement (REIPPP) Programme. Lastly, the evaluation would provide lessons learned for future projects of this kind.

**Positions held:** Analyst

**Activities performed:** Nicole participated in interviews of development agency, Government, and private sector stakeholders involved in the Abengoa KaXu project. She also reviewed project documents, researched the project and country context in order to answer evaluation questions, and wrote sections of the evaluation report. The evaluation centered around the benefits and challenges of concessional financing through CTF, Abengoa as a sponsor, and relevance of the project to country strategies and long term RE goals. The evaluation also focused on the potential demonstration effect that KaXu has had on more recent CSP projects.

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**Name of project:** Promoting Good Jobs and Inclusive Growth through Energy Projects in Central and West Asia

**Year:** 2016 to 2017

**Location:** Armenia, Azerbaijan, Republic of Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Regional

**Client:** Asian Development Bank (ADB)

**Main project features:** ADB wanted a consultant to analyze the links between energy sector projects, good jobs, and inclusive growth in Central and West Asia (CWA), as a part of a larger study on the impacts of MDB projects on good jobs and inclusive growth in the region. This analysis would offer advice to ADB, other MDBs, and MDB borrowers that would

help to design and implement energy sector interventions that achieve these objectives, and to measure progress against these objectives.

**Positions held:** Project Manager

**Activities performed:** Nicole reviewed existing literature on good jobs and inclusive growth (especially literature specific to the CWA region or the energy sector), along with project documents from ADB and other MDBs. She also participated in interviews with ADB staff on their observations of energy sector project impacts, and their experiences with evaluating good job and inclusive growth impacts. Additionally, Nicole used existing data to test the theory presented in the literature. Nicole synthesized findings from these sources into a report.

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**Name of project:** WB Economic Viability of SHPPs in Kyrgyzstan

**Year:** 2016 to 2016

**Location:** Kyrgyzstan

**Client:** The World Bank

**Main project features:** Hydropower has historically played an important role in the power sector of the Kyrgyz Republic, but hydropower capacity has become increasingly inadequate to meet growing demand, particularly during winter months. The World Bank wanted to hire a consulting firm to give the Government of the Kyrgyz Republic a better understanding of the economic viability of small hydropower (SHPP) development in the Kyrgyz Republic and the financial support that would be required to facilitate and maintain the commercial operation of SHPPs in the short and long term. The economic and financial analysis conducted as part of this project complements a concurrent assignment of the legal and regulatory framework for SHPPs in the Kyrgyz Republic that is being carried out by the World Bank. Together, these two projects provide insight into the feasibility of developing SHPP potential in the Kyrgyz Republic.

**Positions held:** Project Manager

**Activities performed:** Nicole was responsible for calculating the levelized costs of 81 SHPP sites, using DHInfrastructure's LCOE-z tool. She also calculated the costs of other energy sources for comparison (thermal generation and imports). Based on these benchmarks, Nicole assessed the financial and economic viability of SHPPs. She also compared financial costs of SHPPs to the feed-in-tariff, calculated under various methodologies (including the previous and current methodologies, and a recommended new FIT based on marginal cost). She demonstrated the increase in financial viability of SHPPs, which can be gained through extended off-take periods.

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**Name of project:** Timor-Leste District Capitals Water Tariff Study

**Year:** 2016 to 2016

**Location:** Timor-Leste

**Client:** Asian Development Bank (ADB)

**Main project features:** The Government of Timor-Leste has committed to providing safe, 24-hour piped water supply to all urban households by 2030 under the country's Strategic Development Plan 2011-2030. Achieving this objective will require not only substantial investment in rehabilitating and expanding water supply systems, but will require on-going investments in operations and maintenance to ensure sustained improvements in water supply services. As part of this plan, the Ministry of Public Works Transport and Communications (MOPTC) is preparing a new National Water Supply Policy and revising tariff rates. The Asian Development Bank is supporting MOPTC to (1) review the Water Services Tariff Policy, (2) confirm that the principles for tariff setting are appropriate, (3) review tariff structure and rates and (4) provide adjustments to ensure that rates are consistent with tariff policy objectives and principles.

**Positions held:** Analyst

**Activities performed:** Nicole assisted with desk research on the costs of delivering urban water supply services, and other socio-economic information in Dili and municipal/autonomous region capitals. She also assisted with the review of the current Water Services Tariff Policy, and the preparation of a financial model, which estimates the costs of delivering safe 24-hour piped water supply services in Dili, Manatuto, and Oecusse.

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**Name of project:** Nauru Power and Water Tariff and Subsidy Reform

**Year:** 2015 to 2016

**Location:** Nauru

**Client:** Asian Development Bank (ADB)

**Main project features:** The Government of Nauru requested technical assistance (TA) from the Asian Development Bank (ADB) to reform electricity tariffs for its national utility provider, Nauru Utilities Corporation (NUC). This TA aimed to contribute to long-term sustainability and viability of NUC as an electric utility and to support proposed investments in NUCs generation facilities under ADBs Nauru Electricity Supply Security and Sustainability Project. The scope of the TA

was subsequently expanded to include support for water tariff reforms. The objective of this additional TA was to make similar tariff-setting and subsidy recommendations for NUC's Water Service Division.

**Positions held:** Analyst

**Activities performed:** Nicole worked as an analyst on this project. She provided advice on the design of a willingness-to-pay (WtP) survey, modeled WtP from the responses, and determined the factors that most influence WtP. She also analyzed customers' preferences for payment methods. She synthesized these results into a section of the final report.

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**Name of project:** Contingent Valuation Study for Water Supply and Solid Waste Disposal in Dili

**Year:** 2015 to 2015

**Location:** Timor-Leste, Regional

**Client:** Asian Development Bank (ADB)

**Main project features:** The Asian Development Bank (ADB) asked DHInfrastructure to develop and administer a contingent valuation study to assess the population of Dili's willingness-to-pay for improved water supply and solid waste management services. The contingent valuation study was part of the Dili Urban Services Improvement Sector Project, an ADB grant which aims to support the Government of Timor-Leste in reaching its goal to achieve universal water access by 2030, and expand clean and reliable solid waste collection services to all residents of Dili. The contingent valuation study supported the Dili Urban Services Improvement Sector Project by providing an understanding of the likely response of customers to tariff increases which may be necessary to finance new investment in the water and solid waste sectors.

**Positions held:** Analyst

**Activities performed:** Nicole developed a survey methodology and instrument and conducted a desk review of the literature on current conditions in the water and solidwaste sectors in Dili. During the survey implementation phase, Nicole conducted interim analysis, data cleaning, and checks on the 600 responses, so as to communicate to the field team any enumeration errors. After the survey was administered, Nicole developed multiple model specifications to calculate mean and median willingness-to-pay (WtP) and determined which factors most influence willingness to pay for improvements to water supply and solid waste services in Dili. She also analyzed differences in WtP between poor and non-poor respondents, and looked at preferences for subsidy mechanisms.

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**Name of project:** Support for the Central Asia Regional Economic Cooperation (CAREC)

**Year:** 2015 to 2016

**Location:** Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan, Turkmenistan, Uzbekistan

**Client:** Asian Development Bank (ADB)

**Main project features:** The Central Asia Regional Economic Cooperation (CAREC) Program is a partnership of 10 countries and six multilateral development partners which uses regional cooperation to promote economic growth and poverty reduction. The Asian Development Bank (ADB), as the Secretariat of CAREC, hired DHInfrastructure to help plan CAREC's energy sector activities during the 2016 to 2020 period, and to supervise the preparation of a report on the potential for public private sector investment in member countries energy sectors. DHInfrastructure was the principal author of the CAREC Energy Work Plan and updated Energy Strategy, and provided technical inputs and quality control of deliverables produced by other consultants for CAREC.

**Positions held:** Project Manager

**Activities performed:** Nicole managed the final portion of this project, involving support to the development of Energy Sector Financing Roadmaps for CAREC member countries. Nicole provided comments and suggestions on the drafts of these reports.

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**Name of project:** Scaling Up Energy Efficiency Retrofit of Residential and Public Buildings

**Year:** 2015 to 2015

**Location:** Belarus

**Client:** The World Bank

**Main project features:** The World Bank requested a report for the Government of Belarus that would recommend financing and delivery options for scaling up energy efficiency investments in thermal retrofits and heating system upgrades in residential and public buildings. The assignment consisted of four parts: (1) a stocktaking of the legal, regulatory, and institutional environment and characteristics of the building sector, including management, ownership, and financing procedures; (2) an assessment of the potential for energy efficiency improvements and their associated investment needs; (3) an analysis of the barriers and potential solutions to investment; and (4) development of a road map and areas for donor involvement.

**Positions held:** Analyst

**Activities performed:** Nicole provided comments on the design of a survey conducted for households both with and without thermal renovations. The survey was conducted to understand households perceptions of current thermal comfort levels and attitudes towards thermal retrofits in multi-apartment buildings.

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**Name of project:** Financial Analysis of Power Sector Utilities in the Western Balkans

**Year:** 2014 to 2016

**Location:** Albania, Bosnia and Herzegovina, Macedonia, The former Yugoslav Republic of, Montenegro, Serbia, Kosovo

**Client:** The World Bank

**Main project features:** Existing network and end-user power tariffs in the Western Balkans do not adequately reflect the cost of service provision, and thus cannot support new generation investments, either by attracting private investors or by providing domestic utilities with the means to invest on their own. For the purpose of assessing the financial viability of the power sector, the World Bank requested a comprehensive financial analysis of the power sector in five countries of the Western Balkans. Later, the World Bank requested an update to this analysis, to include current data, additional utilities, and add Albania to the analysis.

**Positions held:** Team Leader

**Activities performed:** Nicole updated the financial model to provide up to date cost of service estimates and evaluations of the adequacy of existing tariffs in each of the target countries (Bosnia & Herzegovina, Kosovo, Macedonia, Montenegro, Serbia, and Albania). She also updated the fiscal and quasi-fiscal deficits attributable to the power sector in each country, and relevant financial ratios. She updated the previous report to reflect these changes.

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**Name of project:** Development of a Water Supply and Sanitation Strategy for the Kyrgyz Republic

**Year:** 2013 to 2016

**Location:** Kyrgyzstan

**Client:** Asian Development Bank (ADB)

**Main project features:** The Government of the Kyrgyz Republic asked ADB to provide technical assistance in reforming its rural water supply and sanitation sector (WSS), through the development of a rural WSS policy, the strengthening of sector institutions, and the development of a framework for better capital expenditure planning and system maintenance.

**Positions held:** Analyst

**Activities performed:** Nicole helped to develop a willingness-to-pay (WtP) survey instrument, monitored the results as they came in for enumeration errors, cleaned the data, modeled the results to determine WtP, and wrote a report on the factors that contribute to WtP. She also helped to research the institutional, legal, and regulatory structure in the sector.

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