

OVERVIEW

Mr. Nunes has over 25 years of experience providing consulting services to electric utilities, the lender/developer community, regulatory agencies, and federal and state government entities. His expertise includes the following areas:

- Clean energy planning
- Integrated resource planning
- Load forecasting and load research
- Distributed energy resource evaluation
- Development and evaluation of time of use and critical peak pricing programs
- Demand-side management program development and evaluation
- Consulting engineer's reports in support of project revenue bonds
- Environmental policy and waste resources analysis

PROJECT EXPERIENCE

Energy Resource Planning

Mr. Nunes has been involved in numerous resource planning projects for electric utilities across the mainland U.S. and Caribbean. These projects have included integrated resource plans, evaluations of supply- and demand-side resources, contract disputes, and evaluations of power supply proposals. For such projects that he has managed, Mr. Nunes has engaged an interdisciplinary approach to the development and communication of all key IRP assumptions and has overseen load forecasts, fuel forecasts, characterization of supply- and demand-side resource options, development of scenarios and probabilistic assumptions, and levelized cost of energy screenings. Mr. Nunes has been responsible for the review and interpretation of the output of dispatch simulation and resource expansion optimization models and communication of results to key stakeholders. Mr. Nunes has also worked with utilities to craft qualitative evaluation frameworks that balance direct financial attributes with indirect benefits as a basis for resource endorsement.

Demand-side Resource Evaluation

Mr. Nunes has led or supported the evaluation of demand-side resources for a variety of utility clients. This work has involved development of performance parameters, costs, and technical potential, avoided costs, and potential adoption of measures. Mr. Nunes has also worked with these utility clients to develop candidate new measures for evaluation and potential implementation by the utility. Mr. Nunes has designed tailored models for clients to assist with the evaluation of existing measures as well as the screening and deployment potential of new measures, taking into account avoided costs related to energy, capacity, transmission and distribution system upgrades, the availability of excess generation to serve the external market, losses, and other indirect benefits, most notably avoided carbon emissions. These modeling efforts reflected the various industry-standard benefit-cost ratio perspectives (e.g. Total Resource Cost test, Utility Cost Test, Rate Impact Measure Test, and Societal Cost Test).

Load Forecasting and Load Research

Mr. Nunes has prepared or managed numerous load forecasting projects, comprising hundreds of utilities across the U.S. and its territories. This work has involved the analysis and forecasting of customer counts and sales by retail class and system energy requirements and peak demand, utilizing an econometric or end use approach. Most recently, Mr. Nunes has been responsible for the development of methods to incorporate projected adoption and parameterization of distributed solar generation, electric vehicles, and other distributed resources into load forecasts. Mr. Nunes has served as an expert witness on load forecasting in multiple regulatory forums and is an active member of and frequent presenter at the Electric Utility Forecasters' Forum and Edison Electric Institute Load Forecasting Group.

Mr. Nunes has also been responsible for numerous load research studies, including both general load research to ascertain class load profiles and characteristics and experiments involving customer behavior. Mr. Nunes has developed stratified random sample designs and performed sample selection and has worked with utility staff to collect, clean, and validate hourly and sub-hourly load profiles across thousands of customers. He has performed statistical analysis to estimate class loads and load profiles and the potential variance in these estimates. Mr. Nunes has also led studies to determine the impact of time-varying and dynamic retail rates on customer behavior as evidenced by load profile changes. This work has involved the development of sampling approaches and the econometric analysis of customer load profiles as a function of price, appliance saturation, other customer characteristics, and daytype and weather conditions. He has produced reports on these studies, some of which are filed with relevant public service commissions and other regulatory bodies.

Project Financings

Mr. Nunes has managed or participated in the preparation of numerous consulting engineer's reports in support of the issuance of project revenue bonds for various types of supply-side resources. These engagements have typically involved (i) characterization of the key parties to the transaction, contractual obligations of the parties, (ii) technical discussion related to the operation and maintenance of the project, (iii) development of projected operating results for the project, and (iv) development of alternative scenarios and sensitivities that characterize project risks.

PROFESSIONAL HISTORY

Mr. Nunes began working as a professional consultant at R. W. Beck, Inc., in October 1993. R. W. Beck, Inc., was acquired by SAIC, Inc., in 2009, and Leidos, Inc., was created as a separate company that split from SAIC in 2013. Mr. Nunes advanced to positions with increasing responsibility in concert with the evolution of the firm, while continuing to focus on supporting the consumer-owned utility industry throughout his 23-year tenure. Mr. Nunes joined nFront Consulting, LLC, in December 2016.

EDUCATIONAL AND PERSONAL

Mr. Nunes earned a Bachelor of Science in Business Administration degree in 1993 from the University of Central Florida, with a focus in economics. He continued his education to obtain a Master of Arts in Applied Economics degree, also from the University of Central Florida, in 1997. Mr. Nunes resides in Orlando, Florida and enjoys running, cycling, music, reading, and history.