Aspen Environmental Group

JOHN E. CANDELARIA
Senior Associate

ACADEMIC BACKGROUND
M.B.A., Arizona State University, 1992
B.S., Electrical Engineering, Arizona State University, 1983

PROFESSIONAL EXPERIENCE

John Candelaria is a Senior Associate at Aspen and is a specialist in power production, electric and gas resource planning, regulatory policy and utility regulation. He has 27 years of experience in the electric utility industry working for investor owned utilities and regulatory agencies. Mr. Candelaria's current assignments include: Overseeing the development of a coal retirement/renewable resource integration scenario for the WECC Transmission Expansion Planning Policy Committee's 2010 Study Cycle process on behalf of the Western Grid Group; Preparing an economic feasibility assessment of solar resource areas in eastern Nevada for the Southern Nevada Water Authority; Developing a renewable energy resource and transmission right of way land use model for a report currently being prepared for the Western Grid Group; Providing advice and recommendations to the Nevada Bureau of Consumer Protection addressing electric and gas resource planning, rulemakings, proposed legislation, and other regulatory matters; Facilitating a transmission team for the Nevada State Office of Energy to address market and transmission access issues for renewable resources in Nevada; and Assisting Nye County with the identification of transmission access options for renewable energy resources. He is a former Policy Advisor for the Public Utilities Commission of Nevada where he provided advice to Commissioners on a wide range of issues including electric and gas resource planning, conventional and renewable generation options, conventional and renewable long and short-term purchase power contracts, transmission plans, Demand Side Management plans, long and short-term fuel procurement plans, load forecasts, financial plans, rate-making, rule-making and other regulatory issues. Before becoming a Policy Advisor, he represented the Nevada Commission's Staff on electric transmission, generation and other electric resource planning issues, and also addressed gas resource planning, ratemaking and other regulatory issues. He managed the Commission Staff's effort to develop revised resource planning regulations, helped develop State mandated renewable energy regulations and assessed the Nevada utilities efforts to comply with the State's Renewable Portfolio Standard. He spent over eight years working for an investor owned utility gaining experience in power production including construction, energization, operation and maintenance of utility scale power production facilities.

Aspen Environmental Group ***March 2008 to present***

Mr. Candelaria is responsible for providing advice, recommendations, testimony and comments to clients on federal and state regulatory issues including resource and transmission planning, resource adequacy, renewable energy, reliability, short and long-term resource procurement, demand side management and Nevada utility/customer issues.

SENIOR ASSOCIATE
Nevada Office of the Attorney General, Bureau of Consumer Protection: Mr. Candelaria provides advice & recommendations and prepares testimony and comments regarding electric and gas resource planning, rulemakings, ratemakings and other regulatory issues that come before the Nevada Public Utilities Commission. Since joining Aspen, he has prepared testimony, comments and supported litigation in the follow dockets:

- Sierra Pacific Power Company's Application requesting approval of its 2011-2030 Integrated Resource Plan (Transmission Issues - Renewable Energy Conceptual Plan) (Docket 10-07003);
- Nevada Power Company and Sierra Pacific Power Company's Application requesting approval of its 2010 – 2029 Integrated Resource Plan and 8th Amendment to the Sierra Pacific Power Company's 2007 Integrated Resource Plan (SWIP-South/ON-Line alternatives, transmission infrastructure, and transmission corridors) (D-10-02009,10-03023);
- Rulemaking regarding renewable energy zones, transmission plans and renewable developer commitments (Develop framework for regulation) (D-09-07011);
- Nevada Power Company's first application requesting approval of its 2010 -2029 Integrated Resource Plan (gas transportation issues) (D-09-07003);
- Nevada Power Company's Application requesting approval of its Energy Supply Plan Update (gas transportation issues) (D-08-08030).

Western Grid Group: Mr. Candelaria participates in WECC's Transmission Expansion Planning Policy Committee (TEPPC) activities on behalf of the Western Grid Group. He is overseeing the development of a carbon reduction scenario that includes coal plant retirements and integration of renewable resources for TEPPC's 2010 Study Cycle process. He is also developing a land use model to assess land requirements for various renewable energy resource and transmission build out scenarios and assisting with the preparation of a report for the Western Clean Energy Vision project.

Southern Nevada Water Authority: Mr. Candelaria is currently preparing an economic feasibility assessment of a solar resource area in eastern Nevada to determine the likelihood of development.

Nevada State Office of Energy: Mr. Candelaria is facilitating a transmission team for the Nevada State Office of Energy to address market and transmission access issues and to develop recommendations for developing a renewable resource export industry in Nevada.

Nye County/BEC Environmental: Mr. Candelaria is assisting Nye County, Nevada identify transmission access options for renewable energy developers in the county.

Land and Wild Life Organizations: Mr. Candelaria is providing advice on regulatory and transmission issues to clients and stakeholders in Nevada.

California Energy Commission: He assisted the CEC in identifying criteria to evaluate and compare production cost modeling software.

California Public Utilities Commission: He contributed to the survey entitled "Survey of Utility Resource Planning and Procurement Practices for Application to Long-Term Procurement Planning in California" a best practices resource planning survey as part of the California Public Utilities Commission's long term procurement plan investigation. He also contributed to the CPUC's 33 percent implementation analysis, an investigation to determine whether it is feasible to implement a 33% renewable portfolio standard by 2020.

The Energy Foundation:

- Mr. Candelaria provided technical assistance to stakeholders and policy makers in Nevada regarding transmission policy related to renewable energy development. This work included coordinating stakeholder meetings to address a wide range of issues including transmission financing options, renewable resource needs resulting from Nevada's RPS statutes, regulatory issues, Nevada transmission capabilities and limitations, assessments of renewable energy needs by Nevada and surrounding states, and FERC decisions related to transmission line development to access renewable resources;
- He wrote the Transmission for Export section of the Governor Gibbon's Renewable Energy Transmission Access Advisory Committee (RETAAC) Phase II report;
- He completed a white paper regarding transmission financing options in Nevada.

Park City Center for Public Policy: Mr. Candelaria assisted with the preparation of two white papers addressing the need to build and finance flexible infrastructure that will be used to support development of emerging energy technologies and future energy development in the west.

Public Utilities Commission of Nevada, ***1992 to 2008***

POLICY ADVISOR **2004 - 2008**

- Mr. Candelaria provided advice and recommendations to Commissioners regarding resource planning, transmission planning, ratemaking, environmental and other State and Federal regulatory issues;
- He managed and completed two Department of Energy funded studies for the Nevada State Office of Energy: The Transmission for Wind (T4Wind) Study provided estimates of the developable wind resources in Nevada and the transmission requirements to integrate these resources into Nevada's transmission systems; The Transmission & Distribution Roadmap Study addressed barriers to renewable resource deployment.

ELECTRICAL/RESOURCE PLANNING ENGINEER **1992 - 2004**

- Mr. Candelaria managed the Regulatory Operations Staff's effort evaluating integrated resource plans, gas resource planning issues, purchased power contracts, ratemakings, rulemakings, environmental, reliability, renewable energy, reserve margin, deregulation, merger and other regulatory applications;
- He assessed supply and demand side issues in electric integrated resource plan filings including selection of conventional and renewable generation resource alternatives, evaluation of long and short-term purchase power contracts, evaluation of electric transmission infrastructure options, portfolio analysis, fuel options and evaluation of demand response programs. Utilized PROMOD and PROSYM production cost software in the analysis. Prepared and defended testimony in numerous resource planning hearings.

Tucson Electric Power/Alamito Company/Century Power Corp., ***1983-1991***

SENIOR ELECTRICAL ENGINEER

- Mr. Candelaria developed electrical designs, specifications, economic evaluations, cost estimates, material requirements and provided project management for plant modifications and new equipment installations at Springerville Generating Station (2-350 MW coal fired units);
- He provided technical direction in the development and application of test procedures and maintenance programs for electrical equipment and control systems. Completed failure analysis of plant rotating equipment and performed relay coordination analysis on plant electrical equipment;
- He conducted functional testing and energization of plant electrical equipment and inspected

electrical installations during the construction and commissioning phase of Springerville Generating Station.

ENGINEERING AID, **Summers & Semester Breaks 1978-1982**

- Mr. Candelaria assisted Electrical Engineers in the following departments: Resource Planning, Distribution, Substation Maintenance and Power Generation.