

Vijay A. Satyal PhD

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➤ Summary Experience

- Possess more than 12 years of significant experience in energy and regulatory policy evaluation, clean energy policy and incentive design, transmission expansion policies and regional energy markets expansion efforts.
- Proficient in the mechanics of regional electricity markets and various wholesale electricity market constructs in Eastern, Texas and Western Interconnection.
- Experienced in regulatory policy assessment, review of federal and state legislative policies and tracking emerging technology trends (deep-dive electrification, distributed generation and renewable energy generation).
- Proficient in stakeholder engagement (federal, state and NERC regional entities) and leveraged excellent interpersonal communication skills in managing contentious policy issues.
- Possess sound understanding of concepts and trending issues pertaining to: regional electricity markets, clean energy policies and distributed generation technologies.

➤ Professional Experience and Duties

Sr. Policy Analyst: Western Resource Advocates

10/2019 – current

- Review and evaluate regional electricity market expansion initiatives across western U.S.
- Facilitate stakeholder coordination calls of the Regional Markets Work Group for western Public Interest Organizations (PIOs) on behalf of WRA.
- Coordinate PIOs comments on California ISO market expansion initiatives and develop joint comments for submission on market design elements.
- Assisted Regional Markets team with analysing and developing comments for filing to WRA member states' regulatory commission or multi-state viability studies.
- Developed and sustained stakeholder relationships to produce consensus driven policy positions on regional electricity markets in WRA member states.
- Support WRA's Clean Energy Program and Regional Markets team by researching and preparing responses on regional markets expansion efforts in WRA member states.
- Oversee WRA contractors that provide technical assistance to WRA and PIOs on market design related regional market proposals.
- Track state-level, regional and federal regional market expansion related regulatory and policy proceedings.

Senior Consultant: Navigant Consulting

06/2018 – 10/2019

- Conduct risk-informed regulatory processes, including development and implementation of risk-based framework.
- Assist in conduct of NERC Reliability Standards related Internal Controls Evaluation (ICE) and review of Reliability Standard Audit Worksheets (RSAW) for utilities.
- Provide systems thinking perspective to utility program evaluation and engage in program design and strategic development for utility compliance processes with NERC standards.

Sr. Energy Policy Advisor: Western Elec. Coordination Council ***08/2014 – 07/2018***

- Advised WECC CEO and Executive Management in regard to WECC-wide and FERC, NERC related energy and environmental policy and regulatory issues and develop strategy responses.
- Represented WECC at western states and regulatory policy forums regarding: energy and environmental policy, Energy Imbalance Market (EIM) expansion and Southern Power Pool (SPP) engagement on Mountain West Transmission (MWTG) initiative.
- Successfully managed WECC multi-disciplinary team (2015-2017) to assess the grid-reliability implications in West with decarbonization plans as part of compliance pathways to comply with the Federal Clean Power Plan.
- Facilitated stakeholder interaction with WECC CEO, Exec. Management and Technical Staff on public policy and utility regulatory issues impacting Western Interconnection and WECC member utilities in each western US state.
- Tracked trends of energy generation, resource mix changes due to EIM expansion and other regulatory changes across the WECC and non-WECC footprint.
- Successfully enhanced relationships between stakeholders (western states utility regulatory commissioners, policymakers, utilities and consultants) and WECC in external liaison role.
- Reviewed FERC Order 1000 plans by Western Planning regions and conducted gap analysis of WECC planning efforts versus that of Planning regions.
- Led the 1st cycle of WECC Board approved “Anchor Data Set (ADS)” initiative and facilitated stakeholder negotiations between WECC planning committees’ to reach consensus on the first-ever 2028 ADS framework for data collection.

Sr. Policy Analyst: Oregon Department of Energy (ODOE) ***10/2008 – 06/2014***

- Active member of the State of Oregon representation to the Western Interstate Energy Board (WIEB) deliberations with California ISO and PacifiCorp, on the evolution and conceptual design of the Energy Imbalance Market (EIM) proposal.
- Conducted power planning related research and economics of interdependence of fossil and renewable energy options and researched emerging technology options- smart grid, demand response and energy storage devices- for utility scale acquisition and commercialization potential.

- Facilitated stakeholder relations and legislative review for a portfolio of: Energy Generation, Transmission and Climate Change proposals and laws.
- Analyzed state and regional legislative issues on renewables and conservation and related emerging technology solutions.
- Facilitated and led review of ODOE responses to utility regulatory filings at the Oregon Public Utility Commission (OPUC) (focus - Oregon utilities' acquisition of renewable resources).
- Evaluated and review legislative proposals involving the energy generation, climate change proposals and incentives for development of large-scale renewable energy projects.
- Executed policy analyses and research in regard to renewable energy - technologies, regulations and markets - for Governor's office.
- Evaluated 80 million \$ worth of renewable energy projects eligibility for Oregon tax-incentives and related market readiness potential.

Sr. Policy-Planning Specialist: Virginia Dept. of Environmental Quality (VADEQ),

July 2006-Oct' 2008

- Advised Compliance Division with identifying data needs for efficiency in regulatory process.
- Provided guidance on regulatory policy issues to VADEQ Exec. Team & Governor's Office.
- Led and supervised intra-agency team of 12 staff members to complete the Virginia Mercury Study team's assessment of Virginia coal-fired fleet (2006-2008).

➤ **Professional Affiliations and Participation**

- **Federal Grant Panel Reviewer-** Bioenergy and Water quality demonstration projects- USDA-USEPA CSREES and USDA/USDOE Biomass Research Development Initiative (BMRDI).
- **Adjunct Faculty- (2008 - present) – Oregon State University**
 - Instruct Renewable Energy Policy course for past 10 years for School of Public Policy.

➤ **Education**

- **Ph.D. Environmental Sciences - Resource Economics**, Oregon State Univ. Oregon (2002-'06)
- **Master of Science (MS) - Resource Economics**, Michigan State University (1999-'01)
- **Master of Arts (MA)- Economics** at University of Bombay, India (1997-'99) (International Economics)

➤ **Presentations**

- **“Regional Markets and Coordination”** - Testimony to State of Utah Interim Committee: Public Utilities, Energy and Technology — October 20, 2020.
- Multiple presentations to WCEA – Regional Markets Work Group – in 2020.
- Invited Speaker and Panelist – “Reliability Implications of Clean Power Plan- WECC Perspective” – June 2015, Annual Summer Meetings of National Association of Regulatory Utility Commissioners (NARUC).
- Invited Panelist - “Power Purchase Contracts- Opportunities?”- NW Paper Pulp Annual Meeting, June 2010.
- “Potential Costs and Benefits and Technology feasibility – Mercury controls for Virginia Coal Fired Power Plants” – Virginia Mercury Symposium, Newport, VA 2007.
- “Technology Options for Cost-effective ways to enhance biofuels in VA” – Virginia Tech.

➤ Publications

- **“Energy Storage in the Western Interconnection: Current Adoption, Trends and Modelling Approaches.”**- Konstantinos Oikonomou, Vijay Satyal, Masood Parvania – IEEE Power & Energy Society General meeting, Spring 2017, Chicago, IL.
- **“Adaptive Transmission Planning- Implementing a New Paradigm for Managing Economic Risks in Grid Expansion.”** – B. Hobbs, et.al. and... V. Satyal - Special Issue- Planning Under Uncertainty: IEEE Power & Energy Magazine: 1540-7977, (16), 2016.
- **Invited Speaker– “Reliability Implications of Clean Power Plan- WECC Perspective”** – June 2015, Annual Summer Meetings of National Association of Regulatory Utility Commissioners (NARUC).

References available upon request.