



ADVANCED UTILITY RATES GROUP (AURG)

WORKING FOR A SMARTER AND CLEANER GRID

WHAT IS IT?

The Advanced Utility Rates Group (AURG) is a think tank that meets twice a year, bringing together directors, managers and analysts at Rates, Costing and/or Regulatory departments, primarily from utilities across the US and Canada. All members benefit from belonging to a network of peers that deal with similar issues, challenges and objectives.

In these meetings:

- + Utility members share on-going work, proposals or ideas, and receive instant feedback from the group in a relaxed, collaborative atmosphere.
- + Presentations and roundtable discussions have an extraordinary level of detail which is not typically found in traditional conference settings.
- + E3 shares presentations on a variety of regulatory or ratemaking approaches, as well as critical insights from on-going economic analyses.
- + Attendance by several individuals from the same organization is common, which facilitates an integrated view of related work streams from several departments.

WHY?

The energy industry is undergoing a drastic transformation as a result of a stronger focus on state clean energy policy goals, coupled with technology innovation that is driving the expansion of Distributed Energy Resources (DERs) – namely solar distributed generation (DG), electric vehicles (EV), demand response, and energy battery storage. It is a crucial time for utilities to get together to discuss innovative approaches that together will shape the utility of the future.

Utilities and regulators understand that retail rates must be optimized to ensure inter-class customer equity, affordability, and to meet efficiency goals. The AURG meetings serve as a unique forum for utilities to discuss through candid and conversations the design of roadmaps and new rate strategies that meet those goals. Utilities share feedback on recent approaches tested and insights on strategies to overcome any practical limitations that may be encountered.

In these meetings, attendees present complex or innovative elements of their on-going rate cases, new marginal or embedded cost study methods, and new pricing structures to facilitate an efficient transition to a smarter and sustainable grid.



MEETING CONTENT DETAIL

Getting ready to find a sustainable solution for integration of DERs requires examining developments in all areas that are essential in the transition to a modern grid that is reliable, more decarbonized and efficient. The implications for utilities range from planning and operations, to pricing and business models. Below is a detailed list of frequent presentation and roundtable topics at these meetings.



PRICING

- + Elements of design of time of use (TOU) energy rates and transitional steps that may be required when deploying them for the mass-market and for electrification.
- + Factors to consider when contemplating moving to three-part rate structures that add time-differentiated demand charges and/or subscription charges, for residential and small commercial customers and DER technologies.
- + “Value stack” compensation for distributed solar and energy storage.
- + Design of dynamic rates like Critical Peak Pricing, Variable Peak Pricing and Real Time Pricing and findings that work for residential and commercial customers, as well as for electric vehicles, energy storage and other DERs.
- + Design of customer-education programs when deploying new rate designs.
- + Uses of smart meter hourly load data for pricing and revenue class allocation.
- + Maximizing value of demand response and direct load control portfolio to the grid.
- + Net Metering (NEM 3.0) rate structures for solar DG.
- + Rates for microgrids including standby rates, prices for grid services, and evaluation of community and single-user microgrid using solar paired with storage.
- + Pricing for customers with EV V2G technology.
- + Effectiveness of home automation systems in optimizing customers response to new smart-meter enabled rates.

- + Community Solar and Community Choice Aggregation, design and challenges.
- + Methods to ensure that subsidies efficiently target low income users.



COST ANALYSIS

- + Modeling of marginal costs, including environmental, generation, transmission and distribution; methods to introduce locational granularity in distribution cost estimates.
- + Analysis of cost of solar DG, storage and EVs integration in the utility’s grid; avoided cost and cost-shifting calculation metrics.
- + Optimization of battery storage (behind-the-meter and front of the meter).
- + Cost basis to establish DER value streams at retail and market level.
- + Cost-benefit analysis of electrification targets.
- + Innovative load forecasting, such as bottom-up distribution system level methods.

ORGANIZATION

The AURG meetings are generally held on a quarterly basis. Mrs. Nieto makes sure that the topics are relevant and timely, and the meeting size is capped to maximize interactions among attendees. The location for the in-person meetings may change but it always takes place within the US. All contents of the meeting including presentations by utility members are confidential.

GROUP MEMBERSHIP

Attendance to AURG meetings requires utility membership, based on a fee that is assessed annually. Please contact us for details. Non-member utilities can participate in the first meeting as guests.



E3'S CAPABILITIES

E3 has headquarters in San Francisco, New York City, Boston, Raleigh and Calgary. E3 professionals have deep expertise in the energy industry, creating innovation with a pragmatic eye toward real world constraints. Our cutting-edge, in-house models, inform long-term system planning and forecasting, electrification and climate policy analysis, cost-benefit modeling of DER, energy and capacity modeling, and pricing. We have been lead consultants in groundbreaking state-wide proceedings, including California's evaluation of solar generation under net energy metering (NEM 2.0., NEM 3.0), New York's Reforming the Energy

Vision (REV), and Hawaii's design of a cost-effectiveness framework for grid modernization, among many others. E3's reputation for integrity and high quality work, allows us to credibly advise a wide array of clients across the country, such as investor-owned utilities, public power agencies, federal and state regulators, government agencies, independent system operators, power producers, project developers, investors, and emerging technology firms. In October 2019, E3 joined the Willdan Group, a nationwide provider of professional technical and consulting services to utilities, government agencies, and private industry.



Amparo Nieto

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Amparo Nieto is founder and director of the AURG. She has 25 years of experience in the energy industry, in the US and internationally. Amparo has in-depth knowledge of the economic principles behind electricity rate innovation and energy sector regulation, and often testifies before state commissions as part of rate cases. She has recommended advanced, marginal cost-based rates for distributed solar, energy storage and electric vehicles, in California, New York, Minnesota, Nevada, New Hampshire and other states.

In addition to her extensive work in regulatory pricing, she has advised utilities, regulators and independent system operators on incentive regulation mechanisms, capacity market revisions, and market power analysis. Her extensive expertise allows her to bring to the table unique perspectives when designing roadmaps that facilitate the transition to a modernized grid. Amparo frequently speaks at energy industry forums and has led utility-based working groups for over 10 years.

