



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. The attendees also share their perception of impacts of emerging state DER policies on utility's risk and costs and explore workable solutions.



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.



CONNECTION TO MARKETS & GRID PLANNING

- + Modeling market energy and capacity price impact of DER penetration scenarios.
- + Coordination between DER compensation methods and FERC rules on participation of Demand Response, DG and storage in energy and capacity markets.
- + Quantification of long-term adoption of new customer DER technologies.
- + Modelling of long-term capacity value and impact of solar penetration on LOLH
- + “Non-wires alternatives” cost-benefit analysis.
- + Distribution system hosting capacity evaluation methods.
- + Enhanced network modeling with increased data granularity
- + Generation procurement strategy changes.



OTHER REGULATORY AREAS

- + New FERC Orders on participation rules of DERs in wholesale markets
- + Utility business models that facilitate non-discriminatory access of DERs to the grid while holding the utility net revenue neutral.
- + New forms of Performance-Based Regulation (PBR) and performance-incentive mechanisms.
- + Methods to rate base DER investments that displace utility infrastructure.
- + Decoupling and other mechanisms.



ORGANIZATION

All contents of the meeting including presentations by utility members are provided on a strictly confidential basis, except when the presenter authorizes sharing a presentation outside of the group. The AURG meetings take place two times per year and each has a two-day duration. In order to facilitate participation and maximize interactions among all attendees, the meeting size is capped at 35 people. The meeting location changes to facilitate travel to all its members.

GROUP MEMBERSHIP

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

* Note: Due to the pandemic, the AURG meetings will be online in every quarter of 2021. The annual fee will be reduced for all members to recognize the temporary on-line format.

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 review of net metering and design of a cost-effectiveness framework for grid modernization. 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/grid edge technology firms. E3 joined the Willdan Group, a nationwide provider of professional technical and consulting services to utilities, government agencies, and private industry.



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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.

