

Demand Flexibility and Capacity Management

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This document provides links to information on these topics that articulate my perspectives.

Price-Based Grid Coordination and OpenADR 3.0

- [Communication Requirements for Price-Based Grid Coordination](#), ACEEE Summer Study, 2022
- [OpenADR 3.0](#) - Standard download page
- [Transforming Demand Response using OpenADR 3.0](#), ACEEE Summer Study 2024
- [Demand Response and OpenADR 3.0](#), presentation, 2024
- Optimizing Device Operation with a Local Electricity Price, (energy access conference), 2014. [paper](#) [slides](#)
- [CalFlexHub](#) - research project

Capacity Management

- [Building Electrical Capacity Management: The Missing Element to Enable a Sustainable and Resilient Grid](#), ACEEE Summer Study 2024

Big Picture

- [The Unified Theory of Grid Coordination: Putting the Customer First](#), IEEE PES Grid Edge, 2025 - [Putting the Customer First through a Unified Theory of Grid Coordination](#) (slides, 2024). Draft [poster](#) from IEEE Grid Edge 2025.
- Bits & Watts in Motion: Our Much Better Electricity Future, Stanford University guest lecture, October 2023 [slides](#) [video](#)
- [Rethinking Grids with Local Power Distribution](#), ACM e-Energy keynote, 2015

DC Power - "Local Power Distribution" (networked electricity)

- Mostly see nordman.lbl.gov
- [A power-centric 48V DC standard](#), Ethernet Alliance committee, 2023
- [Domatic, Inc.](#) - foundation for LBNL's construction of world's first fully-functional nanogrid

Highly Dynamic Pricing - Resources

- [Priicer](#) - website that publishes highly dynamic retail prices from around the world (though often only the generation component and not other fixed or variable components); as of Sept. 2024 it covered 19 countries and over 140 retailers
- (California) [Net Billing Tariff Export Compensation Rate Data Viewer](#) - hourly export prices for new (NEM 3.0) solar customers
- (California) [Hourly Flex Pricing](#) - PG&E - HDP prices but limited availability - [Current Hourly Flex Pricing](#) (data viewer)

Retail Price Servers

- [Priicer](#) - full retail price for ____ tariffs
- MIDAS - hosts all time-varying retail tariffs in California (mostly TOU) - [server](#) - [documentation](#)
- GridX - hosts PG&E hourly prices and will host SCE hourly prices - in development - [PG&E price download](#) - [API documentation](#)

Dynamic pricing outside the U.S.

- [Imagine all the people: Strong growth in tariffs and services for demand-side flexibility in Europe](#) - groups Highly Dynamic and TOU tariffs together

