# The Cost & Carbon of Competing Utility Models

## ELECTRIC UTILITY GOVERNANCE AND DECARBONIZATION IN LOS ANGELES COUNTY

UCLA School of Law
Emmett Institute on Climate Change & the Environment

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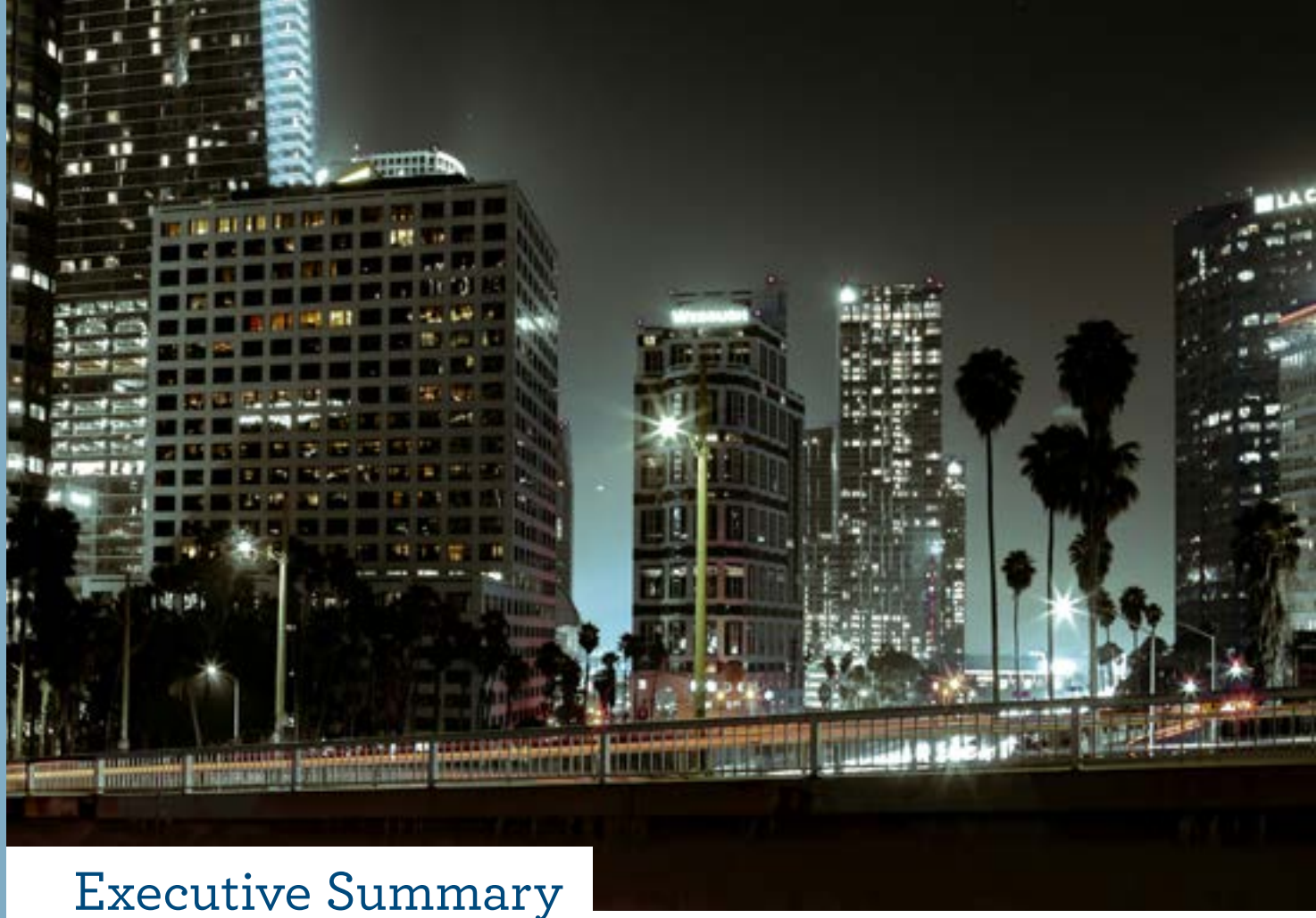

# Executive Summary

**A RECURRENT THEME IN CALIFORNIA POLICY DISCUSSIONS** in recent years has been public power: whether municipally owned electric utilities might provide power more effectively and cheaply than investor-owned utilities. A recent Emmett Institute Pritzker Brief explored the theoretical underpinnings of how well municipal utilities perform, as compared to investor-owned utilities. This report dives deeper into a case study of how two specific utilities in the same geographic region—Los Angeles County—perform on cost and climate metrics.

Los Angeles County offers a unique opportunity to compare the nation's largest municipal power utility—Los Angeles Department of Water & Power (LADWP)—with one of the country's largest investor-owned utilities—Southern California Edison (SCE)—both of which operate in the region with similar building types, similar state policy goals, and generally similar climates. With the geographic overlap between these two utilities, distinctions between them may be more likely attributable to the different governance models.

Our analysis finds that while the investor-owned SCE consistently outperformed municipal LADWP on climate metrics from 2016 to 2019, since 2020, LADWP has gained ground on this front. Since 2020, LADWP has exceeded SCE on percentage of Renewable Portfolio Standard (RPS)-eligible generation. Meanwhile, SCE continues to outperform LADWP in terms of carbon intensity of its overall generation mix, though LADWP has gained substantial ground and even outperformed SCE in select years.

PHOTO: COLLIN MILLER/UNSPLASH

On the consumer cost front, LADWP residential electricity rates continue to be cheaper than SCE's residential rates, but the gap has narrowed in recent years. While rates vary depending on how much electricity is used and when, SCE's average residential rate is 35.3 cents per kWh (or 33.3 cents per kWh accounting for the climate credit rebate), while LADWP's average residential rate ranges from 22 to 37 cents per kWh (with the rate for the moderate use Tier 2 at 28.6 cents per kWh). Compare this to two years ago, when SCE's average residential rate was 33.2 cents per kWh, while LADWP's was 19.4 cents per kWh.

A likely contributor to the narrowing of the gap between SCE & LADWP rates is historical LADWP underspending, with recent increases. Studies of LADWP spending in the mid-2010s found that the utility had underspent on capital investments and system reliability. LADWP has since ramped up its capital spending (including both general grid infrastructure and clean energy resources), which has, in turn, driven rates higher.

Overall, LADWP and SCE appear to be converging on both climate and cost outcomes. The findings suggest that both utilities are making progress toward state clean energy targets, and the gap between their rates has decreased as LADWP has increased spending. While the utility governance model does affect how resources are allocated and spending is prioritized, SCE and LADWP are currently performing relatively similarly on clean energy procurement and cost of service.  This convergence suggests that both types of utility models can work to achieve clean energy goals, though diligent cost containment will be necessary to reduce impacts to both sets of ratepayers.

# Introduction

**RECENT YEARS HAVE SEEN A RENEWED INTEREST** in public versus private ownership of energy utilities. With rising electricity rates among California's largest investor-owned utilities ("IOUs")[1] and one in five households struggling to pay their energy bills[2], there has been increased focus on a movement toward public power—municipalization of IOU infrastructure.[3]

Municipal utilities ("munis")[4] and IOUs face different incentives based on their different ownership and management structures, as well as distinct legal frameworks governing their operations. While many public power advocates assume that municipal utilities will outperform IOUs, that conclusion is not necessarily true for all outcomes. Indeed, context matters, and understanding how structure shapes utility behavior requires examination of the particular goals at issue and as implemented.

Our institute recently released a paper exploring in depth the advantages and disadvantages of IOUs and publicly-owned utilities.[5] While that paper offered a theoretical examination comparing municipal and investor-owned utilities generally, this report examines empirical evidence of two key performance outcomes between a specific IOU and muni in the same region—Los Angeles County.

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1 *See* CAL. PUB. UTIL. COMM'N, HISTORICAL ELECTRIC COST DATA (2025), https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/historical-electric-cost-data; *see also* GABRIEL PETEK, LEGIS. ANALYSTS OFF., ASSESSING CALIFORNIA'S CLIMATE POLICIES–RESIDENTIAL ELECTRICITY RATES IN CALIFORNIA (2025), https://lao.ca.gov/reports/2025/4950/Residential-Electricity-Rates-010725.pdf.

2 *See* PUB. ADVOC. OFF., Q1 2025 RATES REPORT 4 (2025); *see also* GREENLINING, EQUITABLE ELECTRIFICATION REPORT 17 (2019).

3 *See, e.g.*, RECLAIM OUR POWER UTILITY JUSTICE CAMPAIGN, https://reclaimourpowerca.org/ (last visited July 9, 2025); *see also* CAL. ENV. JUSTICE ALLIANCE, ENERGY JUSTICE, https://ceja.org/what-we-do/energyequity/ (last visited July 9, 2025); *see also* GREENLINING INST., CLIMATE EQUITY, https://greenlining.org/work/climate-equity/ (last visited July 9, 2025).

4 Note that there exist public utilities that operate separately from municipalities, but this paper will use the term "muni," as it focuses on a public utility operated by the city of Los Angeles.

5 RUTHIE LAZENBY, MOHIT CHHABRA & SYLVIE ASHFORD, UCLA EMMETT INST., POWER STRUGGLE: CALIFORNIA'S ELECTRIC UTILITY OWNERSHIP DILEMMA (2025).

PHOTO: NICOLAS BACKAL/UNSPLASH


Los Angeles County offers a unique opportunity to compare outcomes between the nation's largest municipal utility—the Los Angeles Department of Water and Power ("LADWP")—and one of the country's largest investor-owned utilities—Southern California Edison ("SCE"). While residents of the City of Los Angeles receive electric service from LADWP, residents of most other cities and unincorporated areas in the county receive electric service from SCE. LADWP households reside in close proximity to SCE households, with comparable climate zones and building types. This proximity provides a particularly instructive opportunity for comparison of key outcomes between a municipal utility and an IOU.

In particular, this paper compares cost outcomes and climate outcomes: specifically how well LADWP and SCE are managing affordability for their ratepayers, and how successfully they are achieving the clean energy and climate goals set by state and local law.

The paper proceeds as follows. Part I outlines the different regulatory and ownership structures of LADWP and SCE, explaining the key governance features of each organization that may enhance or constrain their respective opportunities to decarbonize the electricity grid. Part II describes each utility's initiatives and efforts to modernize the grid and increase renewable generation. Part III compares the ratepayer costs for each of these utilities, identifying some of the legal and financing distinctions that influence these outcomes. Part IV steps back and develops some of the key lessons from a comparison of the two utility models.

PHOTO: SARA THE FREAK/UNSPLASH

# 1 | Utility Governance and Financing

**IOUS ARE FOR-PROFIT ENTERPRISES** that generally seek to maximize the return to shareholders on investments subject to regulatory constraints. Under the general supervision of the state public utility commissions ("PUCs"), IOUs make private decisions about how to borrow money needed to finance capital investments. PUCs determine whether IOU investments are prudent and thus amenable to cost recovery through electricity rates. PUCs set rates at a level that will cover the IOU's "revenue requirement," allowing the IOU to recover its costs, including investments in rate base, the utility's cost of capital or rate of return, operating expenses, depreciation, and taxes. The California Public Utilities Commission (the "CPUC") governs the energy rates and practices of IOUs such as SCE.

Munis, on the other hand, are government entities with goals oriented toward serving the city's residents. Public officials and authorities within the local government determine the rates for munis (which are not subject to state PUCs), and also make the planning decisions about which investments to pursue. Rates are also structured to allow recovery of costs. Unlike IOUs, munis do not seek "profit" in the sense of a rate of return on capital and assets, but munis do include revenue streams in their rates to fund future investments and meet other objectives.

PHOTO: QI LI/UNSPLASH

California regulates munis in the state less aggressively than it regulates IOUs. The California Energy Commission (the "CEC") is the agency responsible for energy policy focused on curtailing emissions and ensuring a safe, resilient, and reliable supply of energy throughout the state.[6] Through the CEC, the state can regulate munis to the degree the regulation affects statewide interests, but the CEC cannot regulate munis regarding purely local issues.[7] As a result, the state can apply environmental regulations to munis either to the extent that such issues affect statewide interests, or to the extent that other munis or IOUs are subject to the same policies.[8]

## A | LOS ANGELES DEPARTMENT OF WATER & POWER

LADWP is the largest muni in the country and the third largest electric utility in California, serving over 1.6 million electric service customers.[9] LADWP is vertically integrated—that is, it owns much of its generation capacity, in addition to its transmission and distribution assets.[10] As of 2024, LADWP supplied more than 21,600 gigawatt-hours ("GWh") of electricity per year, based on over 10,000 megawatts ("MWs") of generation capacity from a diverse mix of energy sources.[11] The utility owns more than 4,100 miles of transmission lines, and over 11,000 miles of distribution lines (7,200 above ground and 3,800 below

6 *See* CAL. ENERGY COMM'N, CALIFORNIA'S ENERGY GOVERNING INSTITUTIONS (2015).

7 The City of Los Angeles is chartered pursuant to the California Constitution, which states that cities governed by a city charter "may make and enforce all ordinances and regulations in respect to municipal affairs," without regard to inconsistent state law. *See* CAL. CONST. art. XI § 5. The California Supreme Court has adopted a four-part test to determine whether a matter regulated by a chartered city supersedes conflicting state law under the "home rule" doctrine. *See State Bldg. & Constr. Trades Council of Cal., AFL-CIO v. City of Vista*, 54 Cal. 4th 547, 555-56 (2012) (describing the test). As such, certain aspects of a municipal utility's operation of the electricity grid, for the purpose of providing electric power to its citizens, may be considered a "municipal affair" subject to the municipality's exclusive regulatory control. *See id.* at 559 (holding that California's prevailing wage law does not apply to the wages of contract workers hired to build locally funded public works because "the construction of a city-operated facility for the benefit of a city's inhabitants is quintessentially a municipal affair, as is the control over the expenditure of a city's own funds") (emphasis removed).

8 Although the CPUC and the CEC have distinct regulatory roles, each plays an important role in California's efforts to reduce emissions from the energy sector. SB 100 requires the CEC, CPUC, and Air Resource Board to evaluate the state's policy to source 100% of retail electricity by 2045. *See* S. B. 100, 2017-2018 Reg. Sess. (Cal. 2018). This report is to be presented to the Legislature and will be updated every four years, with the objective to utilize interdisciplinary expertise on the feasibility, safety, technology, and environmental factors to ensure the transition to a zero-emission electricity grid is safe and effective. *See* CAL. ENERGY COMM'N, SB 100 JOINT AGENCY REPORT, https://www.energy.ca.gov/sb100 (last visited July 10, 2025). Among other things, the agencies' joint report must identify any anticipated financial costs and benefits imposed on electric utilities from the transition to a decarbonized grid, while also describing the barriers to achieving the decarbonization target. See Cal. Pub. Util. Code § 454.53(d)(2). The results of these reports may facilitate changes to the ways the CPUC and the CEC regulate utilities moving forward to ensure that both IOUs and munis are capable of transitioning to renewable generation over the next 25 years.

9 LADWP, 2023-2024 BRIEFING BOOK, at 8 (2024) [hereinafter LADWP 2023-24 Briefing Book].

10 Even though LADWP supplies much of its power through its own system, it has jointed into an agreement with the California Independent System Operator Corporation ("CAISO") to participate in the real-time California Energy Imbalance Market. *See* CAL. INDEP. SYS. OPERATOR, LA DWP TO JOIN ISO'S W. ENERGY IMBALANCE MKT. (Sept. 14, 2020).; *see also* Letter from Steven T. Wellner, Director, Div. of Elec. Power Regulation – West, to John C. Anders, Cal. Ind. Sys. Operator (Jan. 11, 2021). LADWP has not joined CAISO as a full member and will not participate in other markets managed by CAISO, allowing LADWP to maintain management and control over its vertically-integrated electricity grid. LADWP's participation in this market is intended to make it easier to integrate renewable energy into its portfolio and allow for more precise management of energy demand, with the goal of a more reliable grid for LADWP customers with increasing renewable generation capacity—and perhaps reduced electricity rates. *See LADWP Takes Steps to Participate in the Western Grid's Wholesale Energy Imbalance Market (EIM)*, LADWP (June 7, 2016), https://www.ladwpnews.com/ladwp-takes-steps-to-participate-in-the-western-grids-wholesale-energy-imbalance-market-eim/; Carl Zichella, *Energy Imbalance Market Progress and Why It Matters*, NAT. RES. DEF. COUNCIL EXPERT BLOG (May 18, 2017), https://www.nrdc.org/bio/carl-zichella/energy-imbalance-market-progress-and-why-it-matters. It is unclear to what extent LADWP's participation in CAISO's energy imbalance market will impact ratepayers and grid reliability moving forward, but LADWP's ability to avoid blackouts while operating outside of CAISO's management will be a key issue to monitor as climate change continues to intensify summer temperatures in Los Angeles. Although utilities subject to CAISO's management have been more prone to blackouts in recent years, LADWP has also experienced challenges managing peak demand during intense heat waves, such as the one in early September 2020 that caused 14,000 LADWP customers to go without power. *See California ISO Declares Stage 2 Emergency, Announces Possible Outages as Extreme Heat Spreads Statewide*, CBS L.A. (Sept. 5, 2020).

11 LADWP 2023-24 Briefing Book at 8.

ground).[12] In 2022, 35.6% of the power LADWP provided to its customers came from renewable sources.[13] However, LADWP has historically been more dependent on coal than other utilities in California; even after sustained efforts to divest from coal, LADWP still procured about 13% of its electricity from coal generation sources in 2022.[14] LADWP is planning to phase out its reliance on coal generation in 2025.[15]

LADWP is a Proprietary Department of the City of Los Angeles, established by the City Charter.[16] The Mayor of Los Angeles appoints a five-member Board of Water and Power Commissioners to oversee the utility, subject to the approval of the City Council.[17] Board members serve for five-year, staggered terms, but the Mayor may remove board members at will.[18] The Board appoints a General Manager, subject to confirmation by the Mayor and the Council, to serve as LADWP's chief administrative officer.[19]

Three interrelated processes are critical for LADWP decision-making about financing and planning. First, the Board proposes rates for electricity service, which must be set by the City Council as a city ordinance, subject to the provisions of the L.A. City Charter.[20] The rates are designed to meet the LADWP's revenue requirement to operate and maintain electricity infrastructure and service. Second, the Board prepares a budget for each fiscal year (July 1–June 30) based on expected revenues and expenses. Although the Council does not vote on the budget, due to a City Charter amendment in 2011, the LADWP Board must submit a preliminary budget to the Council on March 31 preceding each fiscal year, and must provide an update on that budget by May 31.[21] Third, the Board must submit an Integrated Resources Plan (an "IRP") to the CEC and update the plan at least every five years, with scenarios and strategies to meet long-term objectives for LADWP to comply with applicable requirements for procurement of renewable energy.[22]

As a Proprietary Department, LADWP directs revenue it collects from grid operations to the City's Treasury, earmarked for LADWP's self-managed Power Revenue Fund.[23] The Power Revenue Fund can only be used for LADWP's specific purposes as listed in the City Charter.[24] LADWP's main source of funding is through electricity service rates charged to

12 *Id.* at 10.
13 *Id.* at 11.
14 *Id.* at 18.
15 LADWP, 2022 Power Strategic Long-Term Resource Plan, at ES-6 & ES-27 (2022) POWER STRATEGIC LONG-TERM RESOURCE PLAN, at 103-04 (Dec. 2017).
16 L.A., Cal., City Charter § 600.
17 Id. §§ 502(a), 600(b), 670; *see also Who We Are*, LADWP, https://www.ladwp.com/who-we-are?_adf_ctrl-state=1bo8dpvz0a_110&_afrLoop=92014783016883 (last visited July 10, 2025).
18 L.A., Cal., City Charter §§ 501(c), 502(d).
19 *Id.* §§ 509, 604, 678.
20 *Id.* §§ 675(b), 676.
21 *Id.* § 684.
22 Cal. Pub. Util. Code §§ 9621-9622.
23 L.A., Cal., City Charter § 679(b).
24 *Id.* § 679(b)-(c).

its retail customers. For fiscal year 2024-2025, sales of electricity are projected to total just over $5 billion—all of which goes toward the utility's estimated $8.3 billion in estimated total appropriations for the same year.[25]

Note that Proposition 26 may limit LADWP's authority to increase rates without voter approval.[26] While Proposition 26 exempts charges for public services like electricity from requiring voter approval, so long as they "do not exceed the reasonable costs to the local government of providing the service,"[27] the scope of this exemption creates uncertainty for LADWP. The California Supreme Court has ruled that rate increases do not trigger Proposition 26, as long as they accurately reflect the costs of providing electricity service.[28] However, the scope of this exception remains ambiguous, and LADWP bears the burden of proof,[29] which creates legal uncertainty and can affect LADWP rate setting.

Another main source of funding is debt financing from the sale of municipal bonds, representing an estimated $1.1 billion in 2024-2025.[30] Under the City Charter, LADWP is authorized to borrow money and issue bonds, which are exempt from federal and state income taxes.[31] When deciding to issue bonds, LADWP's board must follow procedures set by city ordinance and must obtain approval from the City Council and the Mayor.[32] LADWP's revenue requirement reflects the cost of capital expenditures, operation and maintenance expenses, and debt service on municipal bonds.[33] Similarly, IOUs account for the cost of debt by including a rate of return on the capital assets owned (the "rate base") in their revenue requirement calculation, but with a sufficient rate of return on capital expenditures to attract investment.

Unlike IOUs, LADWP does not make "profits" from its power services and is not taxed on its revenue collected from electricity rates and charges. However, since 1925, it has paid a planned transfer of certain funds, called a "City Transfer," to the City's Reserve Fund, as permitted by the City Charter.[34] The transfer originally served as a vehicle for repaying the taxpayers, who had paid (through a separate property tax) the principal and interest on the bonds issued to fund the initial capital expenditures for developing LADWP's facilities.[35] Following a class action settlement,[36] the transfer is now limited to 8% of LADWP's gross

25 *See* LADWP, Fiscal Year 2024-2025 Receipts and Appropriations, at 3-4 (2025).
26 *See* Cal. Const. Art. XIIIA, § 3; Constitutional Amendments—Taxation, 2010 Cal. Legis. Serv. Prop. 26 (Proposition 26).
27 *See* Cal. Const., Art. XIII-C, § 1(e)(2).
28 *Citizens for Fair REU Rates v. City of Redding*, 6 Cal. 5th 1, 11 (2018).
29 *See id.*
30 *See* LADWP, Fiscal Year 2024-2025 Receipts and Appropriations, at 3-4 (2025).
31 L.A., Cal., City Charter § 609.
32 *Id.* § 609(a).
33 Navigant Consulting, Inc., Review of LADWP's 2015 Power and Water Rate Increase Proposal: Power System, at 17-18 (2016), http://ens.lacity.org/opa/importantdoc/opaimportantdoc3249101037_01152016.pdf [hereinafter Navigant Review of LADWP's 2015 Power System Rate Proposal].
34 L.A., Cal., City Charter § 344; *see also* Navigant Review of LADWP's 2015 Power System Rate Proposal, *supra* note 33, at 78-81.
35 *Id.* at 79.
36 *See* City of Los Angeles Information Statement, Appendix A, at A-41 to A-42.

operating revenues: about $219 million in 2024-25.[37] As part of the 2011 City Charter amendment, the LADWP Board may block the payment of the City Transfer, in whole or in part, if it "finds that making the transfer would have a material negative impact on the Department's financial condition in the year in which the transfer is to be made."[38]

As for debt service on municipal bonds, LADWP's credit ratings and other financial metrics affect market rates for debt financing. A review of LADWP's 2016-2020 rate proposal noted that LADWP had a higher ratio of long-term debt to total capital than other munis in California, as well as the state's IOUs,[39] and this ratio has increased since that report.[40] In fact, out of the nation's leading municipal utilities, LADWP has the highest existing debt at $12 billion, and the largest five-year capital budget, estimated at $13.5 billion of spending from 2024 to 2028, $7.2 billion of which will be financed by debt and $4.86 billion will be financed by rates and reserves.[41] This high level of debt can drive up the cost of capital for ongoing investments, but this effect can be ameliorated as debt amortizes over time, or as revenue increases through any combination of increasing rates or increasing electricity sales.

### B | SOUTHERN CALIFORNIA EDISON

SCE serves 5 million electric service customers across a 50,000 square-mile service territory in Southern California.[42] It is the second largest electric utility in the state, supplying over 80 million MWh of electricity per year as of 2024.[43] Much of SCE's core business lies in building, maintaining, and operating its over 125,000 miles of transmission and distribution lines.[44] In 2024, SCE generated about 20% of the electricity it provided to its customers from generation sources it owns,[45] and bought the vast majority of the electricity it delivered on the wholesale market administered by the California Independent System Operator ("CAISO"). In 2023, about 40% of the power SCE provided to its customers came from renewable generation sources.[46]

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37 City of Los Angeles, Ord. No. 188484, An ordinance directing the transfer of surplus money from the Power Revenue Fund of the City of Los Angeles Department of Water and Power to the Reserve Fund of the City of Los Angeles during Fiscal Year 2024/25 (Mar. 16, 2025), https://cityclerk.lacity.org/onlinedocs/2024/24-1482_ord_188484_3-16-25.pdf.

38 L.A., Cal., City Charter § 344(b)(2). If the board of LADWP finds that it cannot make all or part of the City Transfer, the City Administrative Officer is required to verify this and report to the Council and the Mayor. *Id.* § 344(b)(4).

39 *See* Navigant Review of LADWP's 2015 Power System Rate Proposal, *supra* note 33, at 64-65.

40 *Compare* Navigant Review of LADWP's 2015 Power System Rate Proposal, *supra* note 33, at 64-65 (capitalization factor of ~60%) *with Rating Action Commentary: Fitch Affirms LADWP, CA's Power Rev Bonds at 'AA-', Removes Negative Watch; Assigns Negative Outlook*, FITCH RATINGS (Apr. 8, 2025), https://www.fitchratings.com/research/us-public-finance/fitch-affirms-aa-on-ladwp-ca-power-rev-bonds-rwn-removed-outlook-negative-08-04-2025 (debt-to-capitalization factor of 68%).

41 *10 Rated Utilities with the Highest Debt Balances: U.S. Public Power Retail Municipal Utilities*, S&P GLOBAL RATINGS 8 (Feb. 1, 2024), https://www.spglobal.com/_assets/documents/ratings/research/101592640.pdf.

42 *See* S. CAL. EDISON, OUR SERVICE TERRITORY (2025).

43 *See* EDISON INT'L & S. CAL. EDISON, 2024 FINANCIAL AND STATISTICAL REPORT, at 7 (2020).

44 *Id.* at 10.

45 *Id.* at 10.

46 *See* S. CAL. EDISON, 2023 POWER CONTENT LABEL (2024) (4.5% from large hydroelectric power and 37.6% from other renewable resources).

SCE is a subsidiary of Edison International and operates as an Investor Owned Utility ("IOU") in California, with bylaws, articles of incorporation, shareholders, organizational executives, and a board of directors.[47] The board and its committees are responsible for long-term planning and decision-making, including on matters related to electricity rates and grid investments.

As an IOU, SCE is subject to the CPUC's jurisdiction.[48] California's system of electricity regulation embraces competition in its wholesale markets and traditional rate regulation in its retail markets. As a result, SCE must receive CPUC approval to raise retail electricity rates through General Rate Cases ("GRCs"), which are proceedings that determine the rates IOUs may impose on their customers.[49] The CPUC requires IOUs such as SCE to report regularly regarding general energy activities and services and specific grid modernization or emissions-based initiatives. SCE also engages in several CPUC-directed exercises for long-term planning and investment, including integrated resource planning[50] and distribution resource planning.[51]

Note also that California permits quasi-public entities called Community Choice Aggregators (CCAs) to operate in IOU service territory.[52] These CCAs procure generation for customers who have opted into their services, while power is delivered through IOU distribution lines, and bills are processed through the IOU. Frequently, these CCAs design their procurement to secure a higher percentage of renewable resources than the IOU power mix. Currently, twelve CCAs operate in SCE territory.[53]

47 *See* S. Cal. Edison, Amended Bylaws of Southern California Edison Company (2018); see also S. Cal. Edison Certificate of Restated Articles of Incorporation of Southern California Edison Company (2006).

48 *See Energy: Electric*, CPUC, https://www.cpuc.ca.gov/energy/ (last visited July 10, 2025); *Notices*, S. Cal. Edison, https://www.sce.com/ko/regulatory/document-library/customer-connection-notices (last visited July 10, 2025) (providing a repository of SCE's public notices required by the CPUC); *CPUC Open Proceedings*, S. Cal. Edison, https://www.sce.com/regulatory/regulatory-information/open-proceedings/cpuc-open-proceedings (last visited July 10, 2025) (providing a list of SCE's open and ongoing proceedings with the CPUC).

49 *See What Is a General Rate Case (GRC)?*, CPUC, https://www.cpuc.ca.gov/generalratecase (last visited July 10, 2025).

50 *See* Cal. Pub. Util. Code § 454.52(a) (requiring the CPUC to develop requirements for IOUs to conduct integrated resource planning); *see also* S. Cal. Edison, Integrated Resource Plan of Southern California Edison Company (U 338-E) (Aug. 1, 2018).

51 Cal. Pub. Util. Code § 769; *see also* S. Cal. Edison, Application of Southern California Edison Company (U 338-E) for Approval of Its Distribution Resources Plan (July 1, 2015) (attaching SCE's 2015 Distribution Resources Plan).

52 *Community Choice Aggregation—Consumer Information*, CPUC, https://www.cpuc.ca.gov/consumer-support/consumer-programs-and-services/electrical-energy-and-energy-efficiency/community-choice-aggregation-and-direct-access-/consumer-information-on-ccas---frequently-asked-questions (last visited June 1, 2025).

53 *See Community Choice Aggregation*, S. Cal. Edison, https://www.sce.com/customer-service-center/community-choice-aggregation.

# 2 | Decarbonizing Electricity Generation

**UTILITIES WILL PLAY A CENTRAL ROLE IN ACHIEVING** California's ambitious goal of sourcing 100% of retail electricity from renewable and zero-carbon resources by 2045.[54] A decarbonized power sector is also the backbone of efforts to reduce emissions from transportation, buildings, and other sectors via electrification. Decarbonizing the electricity sector is thus the foundation of the state's goal to reduce total greenhouse gas emissions by 80% by 2050.[55]

This section assesses the progress made to date by LADWP and SCE in achieving decarbonization to meet the 2045 target. As explained further below, it appears that SCE had initially outpaced LADWP in achieving these targets, but LADWP is now catching up to or even surpassing SCE on some of the relevant decarbonization metrics.

This section examines LADWP's and SCE's progress in two key areas of carbon-free generation resources: (1) large-scale renewable generation procurements pursuant to the state's RPS requirements; and (2) carbon intensity of the utility's overall power mix.

54 *See* S. B. 100, 2017-2018 Reg. Sess. (Cal. 2018). President Biden's executive order to address the climate crisis articulates a federal policy goal of achieving a "carbon pollution-free electricity sector" by 2035, which could accelerate this effort. *See* Exec. Order No. 14,008, Tackling the Climate Crisis at Home and Abroad, 86 Fed. Reg. 7619 (Jan. 27, 2021).

55 *See* CAL. AIR RES. BD., CALIFORNIA'S 2030 TARGET SCOPING PLAN: STRATEGIES TO ACHIEVE THE STATE'S 2030 GHG TARGET, 65-66 (2017) https:// https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2030sp_pp_final.pdf.

PHOTO: LUDOVICO-CEROSEIS/UNSPLASH

### A | RENEWABLE PORTFOLIO STANDARD

The Renewable Portfolio Standard ("RPS") is the fundamental driver of California's efforts to decarbonize its electricity grid. It requires retail providers of electricity to procure increasing proportions of their overall electricity from eligible renewable resources.[56] When initially established in 2002, the RPS only applied to IOUs regulated by the CPUC, although it did require munis to design similar RPS programs and submit reports to the CEC.[57] In 2011, the Legislature removed the exemption for munis and required all electric utilities to meet an explicit 33% target of renewable procurement by 2020.[58]

More recent legislation has further tightened the RPS targets: SB 350 (passed in 2015) set a target of 50% renewable generation by 2030,[59] and SB 100 (passed in 2018) increased the target for 2030 to 60% and further required all of the state's retail electricity to come from carbon-free resources by 2045.[60] SB 100 also required munis to integrate renewable energy procurement into their integrated resource planning.[61]

While SCE was slightly ahead of LADWP in percentage of eligible renewable generation from 2017-2019, LADWP has slightly exceeded SCE on this front since 2020. See **Table 1** to compare RPS compliance percentages between the two utilities. Most recently, LADWP reported that, in 2023, 39.5% of its energy portfolio originated from eligible renewable generation sources—13.5% from wind, 9.5% from geothermal, 14% from solar, and 2.4% from small hydroelectric.[62] Meanwhile, approximately 37.6% of SCE's energy portfolio was procured from eligible renewable sources in 2023—19.8% from solar, 11.7% from wind, 5.2% from geothermal, and 0.7% from small hydroelectric.[63]

Under the LA100 Plan, LADWP intends to achieve 100% carbon-free energy by 2035.[64] SCE's Pathway 2045 notes that, in light of expected increases in electricity demand from electrifying sectors such as transportation and buildings, utilities should aim to achieve 80% carbon-free electricity generation by 2030.[65]

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56 *See Renewables Portfolio Standard (RPS) Program*, CPUC, https://www.cpuc.ca.gov/rps/ (last visited July 10, 2025).
57 *See* Ann E. Carlson, *Implementing Greenhouse Gas Emissions Caps: A Case Study of the Los Angeles Department of Water and Power*, 55 UCLA L. Rev. 1479, 1485-86 (2008).
58 *See* S.B. 2, 2011-2012 Reg. Sess.(Cal. 2011).
59 *See* S.B. 350, 2015-2016 Reg. Sess. (Cal. 2015).
60 S.B. 100, 2017-2018 Reg. Sess. (Cal. 2018).
61 *See* Cal. Pub. Util. Code § 399.30.
62 *See* S. Cal. Edison, 2023 Power Content Label (2024).
63 *See* id.
64 *See 100 Percent Carbon-Neutral Power by 2035: Los Angeles City Council Approves Landmark Initiative*, LADWP (Sept. 1, 2021) https://www.ladwpnews.com/100-percent-carbon-neutral-power-by-035-los-angeles-city-council-approves-landmark-initiative/; *see also 2022 Power Strategic Long-Term Resource Plan*, LADWP (2022), https://www.ladwp.com/sites/default/files/2023-08/2022%20LADWP%20Power%20Strategic%20Long-Term%20Resource%20Plan_0.pdf; *see also* Nat'l Renewable Energy Lab'y, LA100: The Los Angeles 100% Renewable Energy Study and Equity Strategies (2021), http://maps.nrel.gov/la100/la100-study/report.
65 S. Cal. Edison, SCE Pathway 2045, at 5 (2019).

## B | CARBON INTENSITY OF GENERATION MIX

A related, but distinct, metric to track progress toward carbon-free generation is the carbon intensity of each utility's generation mix. The carbon intensity may differ from the renewable portfolio standard percentage because certain types of zero-carbon generation (most notably large hydropower and nuclear power) do not count toward RPS compliance. The RPS percentage also does not account for the carbon intensity of remaining fossil fuel generation.

Since 2021, SCE has had a lower carbon intensity of its generation mix than LADWP. This means that, despite having a slightly lower percentage of RPS-eligible renewable generation, SCE's power mix has released less carbon pollution per unit of electricity consumed. See **Table 1** to compare SCE's carbon intensity with that of LADWP.

The primary distinction between the two utilities at this time is the remaining fossil generation. LADWP both continues to use coal power (10.3% of its power mix in 2023, versus 0% for SCE), and exceeds SCE in its percentage of natural gas generation (32.4% for LADWP versus 20.0% for SCE).[66] If LADWP succeeds in decommissioning its last remaining coal plant this year as proposed, LADWP may see its carbon intensity improve beyond SCE's.

In terms of non-RPS-eligible zero-carbon generation, both SCE and LADWP count nuclear and large hydroelectric among their power mix. Both SCE and LADWP own a portion of Arizona's Palo Verde Nuclear Generating Station—15.8% for SCE and 5.7% for LADWP.[67] LADWP operates hydropower facilities along the Los Angeles Aqueduct system and also receives hydropower from the Hoover Dam.[68] SCE operates multiple hydropower units, most notably the Big Creek Hydroelectric Project, which generates over 1000 megawatts annually.[69]

66 *Compare* LADWP, 2023 Power Content Label (2024) *with* S. Cal. Edison, 2023 Power Content Label (2024).
67 U.S. Energy Info. Admin., Nuclear Reactor Ownership (September 2023), https://www.eia.gov/nuclear/reactors/ownership.php
68 LADWP, 2023-20224 Briefing Book, 10 (2024).
69 S. Cal. Edison, An Overview of SCE's Hydro Generation, https://www.sce.com/sites/default/files/inline-files/SCEHydroGeneration.pdf; Gabriela Ornelas, B*ig Creek's Powerhouse 8 Marks 100 Years of Hydroelectric Power,* S. Cal. Edison (Oct. 8, 2021), https://energized.edison.com/stories/big-creeks-powerhouse-8-marks-100-years-of-hydroelectric-power.

Table 1

## SCE & LADWP CARBON-FREE GENERATION METRICS BY YEAR[70]

| YEAR | SCE RPS ELIGIBLE RENEWABLES (%) | LADWP RPS ELIGIBLE RENEWABLES (%) | SCE CARBON INTENSITY (LBS $CO_2e$/MWh) | LADWP CARBON INTENSITY (LBS $CO_2e$/MWh) |
|---|---|---|---|---|
| 2023 | 37.6% | 39.5% | 491 | 499 |
| 2022 | 33.2% | 35.6% | 552 | 567 |
| 2021 | 31.4% | 35.2% | 580 | 609 |
| 2020 | 30.9% | 36.7% | 598 | 579 |
| 2019 | 35.1% | 34.1% | Not available | Not available |
| 2018 | 36% | 32% | Not available | Not available |
| 2017 | 32% | 30% | Not available | Not available |
| 2016 | 28% | 29% | Not available | Not available |

Cleaner Energy

70 Cal. Energy Comm'n, Power Content Label, https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program/power-content-label (last visited July 10, 2025).

PHOTO: NUNO MARQUES/UNSPLASH



UCLA School of Law Emmett Institute on Climate Change & the Environment

# 3 | Costs to Ratepayers

**CALIFORNIA HAS THE COUNTRY'S SECOND HIGHEST** electricity rates for residential customers, with average 2023 retail rates of 24.87 cents per kilowatt-hour ("kWh"), nearly twice as high as the national average of 12.68 cents/kWh.[71] Yet, in 2023, the average monthly electricity bill in California was $145, only slightly higher than the national average of $137, largely due to low electricity consumption in the state.[72] Notably, California's electric rates have grown substantially in recent years, rising 47 percent between 2019 and 2023, significantly outpacing inflation of 18 percent.[73] According to a recent study from the Legislative Analyst's Office, there are multiple contributors to California's rapidly rising electric rates.[74] Key drivers of rising prices include wildfire prevention and liability costs, state policy goals like RPS and energy efficiency, and cross-subsidies between some customer classes and others (such as subsidies for rooftop solar customers paid by other ratepayers).[75]

71 *See State Electricity Profiles*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/electricity/state/ (last updated Oct. 23, 2024).
72 *See 2023 Average Monthly Bill – Residential*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/electricity/sales_revenue_price/pdf/table_5A.pdf (last visited July 10, 2025).
73 GABRIEL PETEK, LEGIS. ANALYSTS OFF., ASSESSING CALIFORNIA'S CLIMATE POLICIES— RESIDENTIAL ELECTRICITY RATES IN CALIFORNIA, at 12 (2025) https://lao.ca.gov/reports/2025/4950/Residential-Electricity-Rates-010725.pdf.
74 *Id.*
75 *Id.* at 14–19.

PHOTO: CAST OF THOUSANDS

California's IOUs tend to have higher residential electricity rates than munis. On average,[76] California's IOUs' rates are over 50 percent higher than muni rates.[77] Indeed, this general pattern of munis charging less than IOUs holds for SCE and LADWP. SCE's current average residential rate is 35.3 cents per kWh (or 33.3 cents per kWh accounting for the climate credit rebate).[78] LADWP's average residential rate ranges from 22 to 37 cents per kWh, depending on how much energy is used and when (with the incremental rate for the moderate use Tier 2 at 28.6 cents per kWh).[79]

## A | LADWP

### 1. LADWP Rate Setting

As mentioned above, LADWP's average residential rate ranges from 22 to 37 cents per kWh, depending on how much energy is used and when.[80] This rate has risen from just two years ago, when the average residential rate for LADWP was 19.4 cents per kWh.[81] For a typical household use of 500 kWh per month the monthly bill for an LADWP customer on the R-1A Standard Residential Rate would be $138.22.[82]

LADWP rates are set by ordinance, meaning they must be approved by the City Council and the Mayor (or by a Council vote overriding a mayoral veto), in addition to the LADWP Board.[83] The City Charter requires that rates be "fair and reasonable" and that they be uniform for "customers of similar circumstances" throughout the city.[84]

LADWP's electricity rate structure currently consists of a base electric rate ordinance from 2008, combined with an incremental rate ordinance that has applied since fiscal year 2019, as well as pass-through billing adjustment factors.[85] The base rate follows either a

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76 While this paper focuses on average residential rates, note that both SCE and LADWP offer bill assistance and discounts for lower-income households. SCE, *CARE & FERA Discounted Rates*, https://www.sce.com/save-money/income-qualified-programs/care-fera (last visited Aug. 29, 2025); LADWP, *EZ-SAVE Program*, https://www.ladwp.com/residential-services/assistance-programs/ez-save-program (last visited Aug. 29, 2025).

77 *Id.* at 12.

78 *SCE Rate Advisory*, S. CAL. EDISON, (October 1, 2025) https://lao.ca.gov/reports/2025/4950/Residential-Electricity-Rates-010725.pdf. Note that the climate credit rebate is independent from rate design—it is cap and trade revenue that is returned to IOU customers. However, because only IOU customers (and not muni customers) receive this funding, it brings down net costs for SCE customers relative to LADWP customers.

79 *Electric Rates: Residential Rates,* LADWP, https://www.ladwp.com/account/customer-service/electric-rates/residential-rates (last visited June 1, 2025).

80 *See id.*

81 *See* Meredith Fowlie & Duncan Callaway, *Not All of California's Electricity Prices Are High*, UC BERKELEY ENERGY INST. AT HAAS (July 10, 2023), https://energyathaas.wordpress.com/2023/07/10/not-all-of-californias-electricity-prices-are-high.

82 *See* LADWP, *supra* note 79 (using values for July 2025 for a home in the cooler Zone 1, with 350 kWh in Tier 1 and 150 kWh in Tier 2). Note that LADWP customers are billed every two months, but this estimate uses one month for a more direct comparison with SCE.

83 *See* Ann E. Carlson, *Implementing Greenhouse Gas Emissions Caps: A Case Study of the Los Angeles Department of Water and Power*, 55 UCLA L. REV. 1479, 1483 (2008).

84 L.A., Cal., City Charter § 676.

85 *See Understanding Your Rates: Residential Electric Rates*, LADWP https://www.ladwp.com/account/understanding-your-rates/residential-electric-rates (last visited June 30, 2025)[hereinafter Residential Rates]; *Electric Rates: Residential Adjustment Billing Factors*, LADWP, https://www.ladwp.com/account/understanding-your-rates/residential-electric-rates (last visited June 30, 2025) [hereinafter Adjustment Factors]; Ordinance 180127, L.A., Cal. (2008), https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWP009439&RevisionSelectionMethod=LatestReleased; Ordinance 184133, L.A., Cal. (2016), https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWP009439&RevisionSelectionMethod=LatestReleased. Because LADWP has continued to use incremental rates building on the 2008 ordinance, the original portion of the rate avoids potential challenges under Proposition 26, which does not apply to charges set before 2010.

tiered or time-of-use structure based on customer class, consumption, and/or demand, while the pass-through rates are connected to specific costs: a reliability cost adjustment, an energy cost adjustment (which covers fuel, compliance with renewable procurement requirements, energy efficiency, and the revenue transfer), and an electric subsidy adjustment (which funds subsidies for certain qualifying customers).[86] To set the incremental base rate, LADWP undertook a cost-of-service study in 2014 in order to allocate costs appropriately across different classes and tiers of electricity users.[87] The incremental pass-through rates are not set in advance, but are determined on a quarterly basis according to formulas provided in the incremental rate ordinance.[88] Changes in pass-through rates are reviewed by the Board but do not need to approved by the City Council.[89]

Over the past several years, LADWP has relied on increasing the incremental pass-through rates in order to meet its costs of complying with California's Renewables Portfolio Standard (the "RPS"), the city's own LA100 goals, reliability (through replacement or upgrade of infrastructure), and other objectives. Since January 2024, the pass-through adjustment factors have increased by 2.663 cents/kWh for the Incremental Reliability Cost Adjustment and 1.601 cents/kWh for the variable energy cost adjustments.[90]

**2. LADWP Financing and Capital Investments**

According to LADWP's 2023-2024 audited financial statements, the energy utility made a net investment in capital assets of $2.79 billion in 2024 and $2.23 billion in 2023.[91] LADWP has regularly issued a series of tax-exempt Power System Revenue Bonds to fund capital improvements for upgrading facilities and grid assets, for purposes of improved service and reliability.[92]

LADWP's revenue requirement and rate structure have been the focus of scrutiny for many years. In 2012, following a request from the City Council, the City's Office of Public Accountability performed a review of LADWP's financial condition, which determined that LADWP's revenue requirement—and, correspondingly, LADWP's end-user rates—has and would continue to increase due to regulatory requirements, power system reliability needs, and credit rating considerations.[93] The report noted that, while LADWP historically

86 *See id.*

87 *See* LADWP, 2014 Power Service Cost of Service Study (2015), http://clkrep.lacity.org/onlinedocs/2016/16-0065_misc_18_01-28-2016.pdf ; see also Navigant Review of LADWP's 2015 Power System Rate Proposal, *supra* note 33, at 104-21 (analyzing LADWP's cost of service study and providing recommendations).

88 *See* Ordinance 184133, *supra* note 85, at 137-48.

89 *See, e.g.*, LADWP, Resolution No. 025158, Energy Cost Adjustment Expenditures for the 12-Month Period Commencing April 1, 2025 (Feb. 10, 2025), https://www.ladwp.com/sites/default/files/2025-03/Energy%20Cost%20Adjustment%20Expenditures%20for%20the%2012-Month%20Period%20Commencing%20April%201%2C%202025.pdf.

90 *See Adjustment Factors, supra* note 85. The three variable energy cost adjustments are the Variable Energy Adjustment (VEA), Capped Renewable Portfolio Standard Energy Adjustment (CRPSEA), Variable Renewable Portfolio Standard Energy Adjustment (VRPSEA).

91 LADWP, Power System Financial Statements and Required Supplementary Information, at 4 (Dec. 18, 2020), https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB738229&RevisionSelectionMethod=LatestReleased.

92 *See id.* at 11.

93 *See* PA Consulting Grp., Los Angeles Department of Water and Power: Power System Financial Review and Rate Restructuring Analysis, at 23, 27 (Aug. 23, 2012), http://ens.lacity.org/opa/importantdoc/opaimportantdoc324979021_10012012.pdf.

experienced cost advantages, LADWP's prices and costs were increasing more quickly than other electric utilities at the time.[94] The report also stated that LADWP's grid system featured aging infrastructure that will require significant capital investment; rather than increase rates for customers, LADWP has historically met these growing costs through increased borrowing compared other utilities.[95]

Despite the expected increase in LADWP's need for capital investment, a 2015 report on LADWP's power infrastructure found that the utility had struggled to spend its capital budget, reportedly because of issues related to staffing, energy procurement, and contracting.[96] For example, in 2012, LADWP reported a total expenditure for energy efficiency measures of just over $37 million, yet its annual funding for energy efficiency that year was $138 million.[97] As a result, LADWP did not meet even half of its energy savings goal for 2012 (in MWh), and from 2007-2012 achieved only 49% of its cumulative energy savings target.[98]

LADWP has also historically underspent on its Power System Reliability Program (the "Power System" or "PSRP"), which is intended to make grid reliability and modernization improvements in part to support larger renewable energy procurements.[99] From 2011 to 2015, LADWP cumulatively underspent on the PSRP by almost $250 million compared to the approved budget, in part due to contract and procurement delays.

As a result, LADWP underspent its capital budget for the power system from 2011 to 2015 by around $1 billion total, again primarily attributable to procurement and contracting delays, as well as some labor issues.

The history of capital underspending had stymied LADWP's ambitious plans to increase the amount of renewable electricity in its portfolio, its expansive energy efficiency goals, and its need for significant grid improvements under the PSRP, all of which are capital-intensive programs. Understanding the causes of this historical underspending can be difficult, since the direct path of funding from source to project implementation is not always clear from LADWP's publicly reported financial information. Understanding the historic underspending was "further complicated by opaque reporting of results and the restatement of project and annual budgets," and in numerous cases there was "a lack of clarity in reporting on program

94 *Id.* at 23.
95 *Id.*
96 Navigant Consulting, Inc., 2015 Industrial, Economic and Administrative Survey of the Los Angeles Department of Water and Power, at 17-18 (Dec. 8, 2015), http://cao.lacity.org/DWP/2015 IEA Survey Summary 12-08-2015.pdf.
97 Navigant Consulting, Inc., 2015 Industrial, Economic and Administrative Survey of the Los Angeles Department of Water and Power: Power Infrastructure Report, Part A Volume I, at 39 (Dec. 8, 2015), https://cao.lacity.gov/DWP/2015%20IEA%20Survey%20Volumes%2012-08-2015.pdf IEA Survey Volumes 12-08-2015.pdf [hereinafter Navigant 2015 Survey of LADWP Pt. A Vol. 1].
98 *Id.* at 40. In comparison, the Sacramento Municipal Utility District achieved 92% of its targeted savings over the same time period.
99 *See* Navigant Review of LADWP's 2015 Power System Rate Proposal, *supra* note 33, at 57-59.

progress toward specific goals and around the use of leftover funds from underspent capital programs."[100] As a result, "[c]omplete information on the whole lifecycle of a project, including comparisons to original budgets, [was] often not readily available."[101]

Despite these challenges, in recent years, LADWP has significantly increased its budgeting to ramp up capital expenditures for grid modernization and reliability improvements under the PSRP.[102] As of November 20, 2019, LADWP had spent over $3.9 billion over a five-year period to replace and upgrade grid infrastructure under the PSRP.[103] During fiscal year 2020, LADWP allocated approximately $616 million to distribution plant accounts and $47 million to transmission plant accounts for infrastructure improvements, used to replace deteriorating grid equipment and cables, improve circuit capacity, install automatic reading meters, and other grid modernization improvements.[104] In fiscal year 2024, LADWP made $1.2 billion in depreciable utility plant investments and construction-work-in-progress expenditures of $365 million, resulting in an increase in the Power System's net utility plant by $912 million.[105] LADWP's proposed budget for fiscal year 2025-2026 expects around $1.2 billion in expenditures under the PSRP.[106]

## B | SCE

### 1. SCE Rate Setting

As discussed above, SCE's current average residential rate is 35.3 cents per kWh (or 33.3 cents per kWh accounting for the climate credit rebate).[107] For an average residential customer using 500 kWh per month, the monthly bill would be $193.23 (or $183.90 accounting for the climate credit rebate).[108]

100 Navigant 2015 Survey of LADWP Pt. A Vol. 1, *supra* note 97, at xi.
101 *Id.*
102 *See* LADWP, LADWP 2023-24 Power Infrastructure Plan, at 2 (May 2024) (noting $1.44 billion budget for the Power System for 2023-2024).
103 *See LADWP Statement Regarding City Controller's Report on Wildfire Prevention*, LADWP (Nov. 20, 2019) https://www.ladwpnews.com/ladwp-statement-regarding-city-controllers-report-on-wildfire-prevention/.
104 LADWP, 2019-2020 Audited Financial Statements, at 6 (2020).
105 *Id.*
106 LADWP, 2025-2026 Receipts and Appropriations (2025).
107 *Rate Advisory*, S. Cal. Edison (June 1, 2025), https://www.sce.com/save-money/rates-financing/sce-rate-advisory. Note that many SCE customers are subject to time-of-use rates rather than block rates, which vary depending on when the electricity is used.
108 *Id.*

For the three large IOUs in California, the GRC proceeds before the CPUC in two phases: The first phase determines the utility's "revenue requirement," or the total amount the utility must recover from its customers to account for its costs of operating and maintaining the electricity grid (including a reasonable return on investment); the second phase determines how the utility may set rates for its customers in order to meet the revenue requirement, including considerations of how to allocate the costs among different classes of customers.[109] SCE is required to file a GRC application every three years.[110]

Rates set in GRCs are required to be "just and reasonable." [111] Capital investment and operational expenditures must meet basic prudency tests.[112] At evidentiary hearings for the GRC, an administrative law judge considers testimony from the IOU, consumer advocacy groups, and other parties to the proceeding regarding the proposed revenue requirement and rate allocation.[113] After considering all proposals and evidence, the judge issues a proposed decision to adopt, modify, or deny the proposal.[114] The CPUC then solicits comments from utilities and other interested parties regarding the proposed decision.[115] The CPUC may ultimately sponsor a decision other than the IOU's proposal, and the commissioners discuss and vote upon the outcome at a voting meeting.[116]

When making a determination in a GRC proceeding, the CPUC reviews detailed cost data for various areas of the IOU's operations from the "base year," or the last year that the utility recorded its costs prior to filing the GRC.[117] The CPUC uses that base year data to forecast the IOU's revenue requirement for the first year of the GRC cycle, also called the "test year."[118] To account for spending changes during the GRC cycle, for the two years after the test year—called the "post-test years"—the CPUC adjusts the revenue requirement set for the test year by considering anticipated increases in costs or capital expenditures.[119]

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109 *See* CPUC, Utility General Rate Case – A Manual for Regulatory Analysts, at 6-8 (Nov. 13, 2017).
110 *Id.* at 8; *see also Southern California Edison GRC Proceeding (Phase I),* CPUC, https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-rates/general-rate-case/southern-california-edison-grc-proceedings (last visited Oct. 2, 2025).
111 *See* Cal. Pub. Util. Code § 451 ("All charges demanded or received by any public utility, or by any two or more public utilities, for any product or commodity furnished or to be furnished or any service rendered or to be rendered shall be just and reasonable.").
112 *See* CPUC General Rate Case Manual, *supra* note 112, at 6.
113 *Id.* at 12-13.
114 *Id.* at 13.
115 *Id.* at 13-14.
116 *Id.* at 14.
117 *Id.* at 8.
118 *Id.*
119 *Id.*

Additionally, IOUs may seek to recover costs related to catastrophic events (such as wildfires) or other unforeseen circumstances not covered by GRC revenue requirements, via balancing and memorandum accounts. In 1991, the CPUC issued Resolution E-3238, which allows utilities to establish Catastrophic Event Memorandum Accounts.[120] In these accounts, utilities record the costs of responding to and repairing damaged grid infrastructure, restoring utility service to customers, or otherwise complying with government orders regarding declared disasters.[121] SCE has used these accounts for various wildfires since 2018, as well as damage from earthquakes.[122]

**2. SCE Finance and Capital Investments**

According to SCE's 2024 annual report, the company operates with an electricity rate base of $45.73 billion, with a peak demand of 23,861 MWs and yearly system sales of over 81,841 gigawatt-hours ("GWh").[123] SCE made $5.741 billion in capital expenditures during 2024, up from $5.411 billion in 2023, though lower than the $5.678 billion in 2022.[124] Of the 2024 capital expenditures, SCE spent $4.1 billion on the distribution system, $300 million on the transmission system, and $1.1 billion on wildfire mitigation.[125]

As of SCE's 2024 annual report, its CPUC-authorized capital structure is 43% long-term debt, 5% preferred equity, and 52% common equity.[126] Its authorized cost of capital for 2025 includes: cost of long-term debt of 4.58%, cost of preferred equity of 6.42%, and ROE of 10.33%; based on this structure, SCE's weighted average return on rate base for 2025 is 7.66%.[127]

A significant source of costs for SCE in recent years has been wildfire-related costs—wildfire mitigation and prevention in the electrical grid, payments into the wildfire fund and other sources of insurance against future fires, and liability for fire damage resulting from SCE equipment. While the wildfire fund helps reduce SCE's potential exposure to liability,[128] should SCE be found liable for the Eaton Fire, the company may incur substantial losses, damaging the company's credit rating, and driving costs higher for ratepayers.

120 *See* CPUC, Resolution E-3238, Order Authorizing All Utilities to Establish Catastrophic Event Memorandum Accounts, as Defined, to Record Costs Resulting from Declared Disasters (July 24, 1991).

121 *See Catastrophic Events Memorandum Account Notification Letters*, CPUC https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/catastrophic-events-memorandum-account-notification-letters (last visited July 10, 2025).

122 *See id.*

123 Edison Int'l & S. Cal. Edison, 2024 Annual Report (2024).

124 *Id.*

125 *Id.* at 8

126 *Id.* at 124.

127 *Id.* at 124.

128 Emma Penrod, *Southern California Edison likely faces 'material losses' from Eaton Fire, CEO says*, Util. Dive, https://www.utilitydive.com/news/southern-california-edison-sce-eaton-fire/746965/.

# 4 | Conclusion

**SEVERAL YEARS AGO (AROUND 2020), SCE CLEARLY LED LADWP** in clean energy generation, while LADWP had significantly cheaper electric rates than SCE. Now, these two utilities are starting to move closer together on both of these fronts.

SCE had taken early strides to proactively procure renewable energy to achieve future RPS requirements, but with significant system departures to CCAs and excess credits, SCE no longer needed to achieve such quick renewables penetration.[129] LADWP is now catching up—and even surpassing SCE—on renewables procurement.

Meanwhile, although LADWP had been underspending on capital investments in the mid-2010s, it has now begun to invest more in capital expenditures, with rates increasing accordingly. LADWP's electricity is still cheaper than SCE's, but the margin has narrowed. Taking into account the climate credit rebate,[130] SCE's average residential rate of 29.3 cents per kWh is only 0.7 cents more per kWh than LADWP's moderate use Tier 2 rate of 28.6 cents per kWh (or 2.6 cents more at 31.2 cents per kWh when not considering the climate credit). Compare this to two years ago, when SCE's average residential rate exceeded LADWP's by 13.8 cents per kWh (33.2 versus 19.4 cents per kWh). (Note, however, that SCE's rates will increase if the CPUC approves the pending proposed decision in SCE's rate case—again widening the cost gap between SCE and LADWP.)

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129 *See* KELLY TRUMBULL, UCLA LUSKIN CTR. FOR INNOVATION, THE RAPID GROWTH OF COMMUNITY CHOICE ENERGY, at 5-6 (2019) https://innovation.luskin.ucla.edu/wp-content/uploads/2019/11/Rapid_Growth_of_Community_Choice_Energy.pdf; see also CPUC, 2024 PADILLA REPORT (2024) https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/office-of-governmental-affairs-division/reports/2024/2024-padilla-reportvfinal.pdf.

130 Note that the climate credit is at risk of decreasing, disappearing, or only being available to certain customer groups (i.e. low-income ratepayers), depending on the outcome of cap-and-trade reauthorization and other pending bills in the legislature. A decrease in the climate credit would increase the net cost of SCE rates relative to LADWP rates.

PHOTO: TIM WINKLER/UNSPLASH

What has caused this change in LADWP's trajectory? One possible explanation is the city's commitment to achieve 100% renewable energy by 2035, as articulated in the LA100 study from 2021.[131] This ambitious decarbonization goal, combined with a renewed commitment to address deferred spending on grid infrastructure,[132] may be combining to increase clean energy resources, as well as system costs and average user rates.[133]

Even with LADWP rates increasing, SCE's rates remain higher than LADWP's, and could increase even further depending on the outcome of the Eaton Fire investigation and lawsuits.[134] Investor profits may be driving some of the higher rates for SCE, and indeed several recent studies have focused on problematically high rates of return for investor-owned utilities, which could cause continued higher costs for SCE customers.[135] But it is also possible that the two utilities' rates may continue to converge further as LADWP increases its capital spending.

While these two utilities are currently converging on cost and climate outcomes, their paths to these outcomes and their incentive structure continue to differ, which may cause divergent outcomes in the future, or at least different experiences for stakeholders engaging in decisionmaking processes.

As a vertically integrated public utility with the backing of an ambitious city government and limited state oversight, LADWP may be able to move more quickly and flexibly to decarbonize. They have the option to build and operate their own generation in a way that SCE cannot, which can be cheaper than buying generation on the market, particularly with the frequently advantageous cost of capital for municipal bonds. On the other hand, LADWP is constrained in its ability to change rates by the limitations of the City Charter and Proposition 26.

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131 LADWP & Nat'l Renewable Energy Lab'y, LA100: The Los Angeles 100% Renewable Energy Study and Equity Strategies, https://www.nrel.gov/analysis/los-angeles-100-percent-renewable-study (last accessed July 10, 2025).

132 *See* LADWP, 2023-24 Power Infrastructure Plan 2 (2024), https://www.ladwp.com/sites/default/files/2024-09/2024_Power%20Infrastructure%20Plan%20Final_Web.pdf.

133 Note that LADWP has committed to an equitable transition to 100% clean energy, and has developed a range of strategies to ensure lower income communities are not unduly burdened by the renewables transition. Among other approaches, LADWP is exploring expanding bill assistance and differentiating rates by income level. *See* LA100: The Los Angeles 100% Renewable Energy Study and Equity Strategies, National Renewable Energy Laboratory, chapter 5 (2023), https://maps.nrel.gov/la100/equity-strategies#home.

134 *See, e.g.*, Melody Petersen, *California utility customers could get stuck with a big bill for the Eaton fire*, L.A. Times (June 16, 2025) https://www.latimes.com/environment/story/2025-06-16/tens-of-millions-of-californians-could-pay-more-for-electricity-because-of-the-eaton-fire.

135 *See, e.g.*, Mark Ellis, Am. Econ. Liberties Project, Rate of Return Equals Cost of Capital: A Simple, Fair Formula to Stop Investor-Owned Utilities From Overcharging the Public (2025), https://www.economicliberties.us/wp-content/uploads/2025/01/20250102-aelp-ror-v5.pdf; *see also* Joe Daniel et al., *Rebalancing "Return on Equity" to Accelerate an Affordable Clean Energy Future*, Rocky Mountain Inst. (Feb. 21, 2025), https://rmi.org/rebalancing-return-on-equity-to-accelerate-an-affordable-clean-energy-future/.

Meanwhile, as a state regulated, investor-owned utility, SCE is largely limited to the electricity it can buy on the energy market, and it is further constrained in its ability to influence the energy mix by some of its customers departing for CCAs. However, SCE is subject to state regulation in a way that LADWP is not, which means that the PUC can direct it to accomplish state policy goals, such as energy storage procurement or net metering, which may result in faster achievement of these aims.

Both LADWP and SCE are large, complex institutions that are working to balance multiple sets of goals while providing power to their customers. While the primary decisionmakers and incentives differ between these two entities, recent years have seen them converge in terms of ratepayer costs and climate outcomes. This convergence suggests that both types of utility models can work to achieve clean energy goals, though diligent cost containment will be necessary to reduce impacts to both sets of ratepayers.

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The Emmett Clean Energy Law & Leadership (E-CELL) project produces actionable research, analysis and scholarship that advances real solutions to urgent problems in energy law and policy. Launched in 2024, E-CELL is led by Project Director Denise Grab and Emmett Institute Faculty Co-director and Michael J. Klein Professor of Law William Boyd. E-CELL aims to help transform the grid to zero emissions; build out the energy storage and transmission we need; and redesign our utility rates and regulations to account for the likely increase in household electricity demand and decrease in gas usage. To these ends, we engage with policymakers at the state and federal level to transform the energy system and legal regimes to enable progress while training the next generation of energy leaders.

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