

San Diego Electric Distribution Utility Financial Benefits Study

September 2025



This public electric utility financial benefits study is based on the July 2023 NewGen Strategies and Solutions (NewGen) *Phase 1 Report - Public Power Feasibility Study for the City of San Diego*, including the NewGen economic feasibility analysis, that the City commissioned in 2022. NewGen projected a “best case” scenario savings of \$8 billion in the first 20 years, \$15 billion over 30 years. Several problematic assumptions were made in the Phase 1 study financial analysis (also known as “pro forma”) that collectively minimized the economic benefits of forming a public electric utility. This report uses the same pro forma model, revised to use more realistic and fully documented assumptions, to demonstrate a public electric distribution utility would be substantially more economically beneficial than projected in the Phase 1 report. Specifically, a San Diego public electric distribution utility could reduce electricity costs to San Diegans by \$37 to \$47 billion in the first 20 years of operation, and \$108 to \$137 billion over 30 years. It could also reduce residential customer rates by approximately 20 percent in the initial year.

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I. Executive Summary

A public electric distribution utility (EDU) serving San Diego saves San Diegans \$37 to \$47 billion in the first 20 years, and \$108 to \$137 billion over 30 years, and reduces rates approximately 20 percent the first year, when realistic assumptions are used for the principal variables in the EDU financial model. The City of San Diego commissioned NewGen Strategies and Solutions, LLC (NewGen) in 2022 to study the feasibility of creating a municipal utility in San Diego. Phase 1 of the study was issued in July of 2023.¹ It showed that a public electric utility would provide an economic benefit to the ratepayers compared to the SDGE alternative. However, the study's financial pro forma indicated that this benefit, in the best case, would be modest at \$8 billion over 20 years, \$15 billion over 30 years.

NewGen did not comprehensively list the assumptions used in its 2023 pro forma model in its report, or the basis for several financially critical assumptions. The project team that prepared this revised analysis requested the NewGen pro forma assumptions via a Public Records Act request in December 2023. The City was unresponsive. A lawsuit was filed to obtain the pro forma assumptions in February 2024. The lawsuit was successful. In August 2024 the City provided the model assumptions and the Excel pro forma model. The project team subsequently expanded the model to enable direct comparison of modified public power financial scenarios, using realistic and substantiated assumptions, to the original NewGen scenarios. The results are presented in this report.

II. Pro Forma Cost-Benefit Comparison

The NewGen 2023 pro forma ("2023 pro forma") financial model used in the Phase 1 study evaluates a 30-year period, comparing the year-to-year and cumulative financial performance of a public electric transmission and distribution (T&D) utility to SDGE. NewGen looked at only a T&D utility configuration. The inclusion of transmission in the scope of the utility adds six years to the base case timeline of 5+ years identified in the Phase 1 study to transition to public power. Six years is the time allotted in the Phase 1 study to the Local Agency Formation Commission ("LAFCO") to evaluate, and approve or disapprove, a change of ownership of transmission lines in corridors shared with neighboring political jurisdictions.² Without the transmission component, there is no role for LAFCO.

¹ NewGen Strategies & Solutions, *Phase I Report - Public Power Feasibility Study*, prepared for the City of San Diego, July 11, 2023: <https://www.sandiego.gov/sites/default/files/cosd-public-power-feasibility-report.pdf>.

² Ibid, Figure 10-2, p. 10-7.

NewGen was part of a consultant project team in 2020 that also produced a public power feasibility assessment for San Diego to inform the City’s electric and natural gas franchise agreement negotiation process. In that assessment, the consultant team looked only at an EDU structure, because such a configuration would be located exclusively within the city limits and would avoid LAFCO review. There is no mention in the 2023 Phase 1 report that the same consultant, NewGen, had studied the same issue in 2020 – public electric power – using a different utility structure that avoided the six-year delay imposed by involving transmission lines and LAFCO.

Two recent prior public power studies for San Diego, PowerServices Inc. (2017) and the previously mentioned JVJ/NewGen/MRW (2020) study, either found the EDU configuration to be the most cost-effective (PowerServices) or only evaluated an EDU configuration (JVJ/NewGen/MRW). The NewGen Phase 1 study includes all the data necessary to model an EDU alternative. However, it does not include that scenario in the Phase 1 study.

This project team evaluated an EDU option. Table 1 shows the additional savings achieved by selecting an EDU structure over the T&D structure evaluated in the NewGen Phase 1 report. The EDU structure would save an additional \$5 billion over the first 20 years and \$9 billion over 30 years, compared to savings stated for the T&D scenario in the Phase 1 report.³ This result is consistent with the earlier two municipalization studies prepared for San Diego that favored the EDU configuration as the most cost-effective scenario.

Table 1. Economic Benefit of Distribution Utility Structure Over T&D Utility Structure

Parameter	20-yr savings compared to T&D base case, \$ billion	30-yr savings compared to T&D base case, \$ billion
Distribution utility (EDU)	5	9
T&D utility structure	base case	base case

Based on these findings, the EDU structure is the more cost-efficient and least complex public power alternative for San Diego. In this economic feasibility assessment, the project team uses the NewGen pro forma model to compare the economic benefits of an EDU, using a number of modified assumptions, to NewGen’s (1) original T&D utility and (2) a distribution utility-only variation of the T&D utility using NewGen’s original assumptions.

The assumptions that primarily drive the results of the financial modeling are:

³ All savings shown are cumulative “Year of Expenditure” values, per the NewGen Phase 1 report convention.

- Rate of growth of non-energy (aka Utility Distribution Company - UDC) costs^{4,5}
- Rate of growth of energy (commodity) costs
- Value of SDGE assets to be purchased
- Magnitude of non-bypassable charges (NBC)
- Use of debt financing versus cash to finance new ongoing capital investment
- Principal/interest structure of debt financing used to purchase assets

Table 2 shows the additional cost savings (or losses), beyond the added savings from the switch to a D-only configuration, of the revisions to the original model assumptions. To calculate the full savings of the EDU scenario, add the Table 2 values to the \$13 billion in savings for a NewGen D-only scenario over 20 years⁶. The base case NewGen D-only scenario uses the “book value” of \$1.7 billion for the SDGE distribution grid in San Diego.^{7,8}

Table 2. Economic Benefits Attributable to Switch from Private Monopoly to Public Power Financial Structure Using Revised EDU Assumptions Versus NewGen

Parameter	20-yr savings relative to NewGen D-only, \$ billion	Justification
UDC cost rate of increase	18.7	Higher growth rate in SDGE UDC costs is assumed, 7% vs 3%; EDU UDC growth rate of 3% in original model is retained.
NBCs (wildfire fund, nuclear decomm., comp. trans. charge)	4.3	Assume NBCs are 5%, consistent with 2023 actual SDGE percentage, and not 10% as assumed by NewGen.
Debt structure of new capital additions ⁹	2.4	100% debt financing instead of “50% debt, 50% cash” increases savings in early years.
Debt structure of initial asset purchase	0.1	Change in debt structure to “levelized principal & interest payments each year for 30 years” increases savings in early years.

⁴ NewGen, Phase 1, p. 8-1: “The rate forecast, and in turn the revenue requirements, are bifurcated between commodity rates, which estimate the costs for the procurement of energy, and Utility Distribution Company (UDC) costs, which estimate the costs for the delivery of energy and encompass costs not attributable to the procurement of energy. The combination of the commodity revenue requirement and the UDC revenue requirement constitute the total estimated revenue requirement for ratepayers.”

⁵ UDC costs include: capital additions, operations, maintenance, and general & administrative expenses.

⁶ “20-yr NewGen T&D scenario savings” + “20-yr NewGen savings from switch to D-only utility scenario” = \$8 billion + \$5 billion = \$13 billion.

⁷ Book value is also known as “Original Cost Less Depreciation – OCLD”. NewGen identifies the OCLD of SDGE’s assets for the D-only utility configuration as \$1.7 billion.

⁸ NewGen cumulative savings for the D-only utility OCLD case at the 20-year mark = \$13.0 billion. Cumulative savings at the 30-year mark = \$24.1 billion.

⁹ NewGen Phase 1, Figure 7-5, p. 7-5. NewGen assumes distribution system capital additions of \$220 to 250 million/yr over the 30-year study period. The EDU pro forma makes no changes to this assumption.

Sale value of SDGE assets	-0.9	A higher EDU asset value is assumed at 1.35x OCLD, NewGen's projected "most likely" value, versus 1.0x OCLD.
Debt Service Coverage Ratio (DSCR)	-0.9	Maintain DSCR at recommended 1.2x or higher across 30-year finance period.

The change to public power alone creates \$24 billion in additional savings relative to NewGen's distribution utility-only scenario, with three parameters dominating the increased economic benefit: 1) the rate of growth of SDGE UDC costs, which NewGen assumes is substantially lower than either historic or projected future SDGE UDC growth rates, 2) the percentage of total costs that are NBCs, which NewGen assumes will be double (10 percent) the actual 5 percent magnitude of these charges at the time the NewGen study was prepared, and 3) the debt structure of new capital investments, which NewGen assumes will be 50 percent debt and 50 percent cash, when a 100 percent debt structure is commonly used and would generate more ratepayer savings in the early years.

The sale price of SDGE's distribution assets did not have a major impact on the economic benefits of the EDU across the range of multiples of distribution asset book value analyzed, from 1x to 2.5x. The 2025 modified pro forma base case uses of the mid-range, 1.35x, of the SDGE book value multipliers identified as "most likely" in the Phase 1 report.

The EDU structure has great potential to reduce commodity costs as well. NewGen assumes commodity (energy) costs are unchanged between SDGE and the public utility throughout the 30-year study period. NewGen assumes all grid power used by San Diegans will be imported over the SDGE transmission grid, as it is now, over the 30-year study period. This is a very conservative assumption.

An alternative energy supply scenario is feasible and preferable. The rapid deployment of local clean energy resources in the EDU on the distribution grid, substituting for imported power, would eliminate the SDGE delivery charges and legacy power contract charges (PCIA exit fees) imposed on that imported power. This approach would lower energy costs for San Diegans, saving up to \$10 billion on commodity costs in the first 20 years of EDU operation. See Table 3 below.

Table 3. Potential Additional 20-Year EDU Savings with Transition from Imported Power to Local Power on the Distribution Grid

Parameter	20-yr savings relative to NewGen base case, \$ billion	Justification
Commodity costs (energy)	6.3	Rapid substitution of power imports w/lower-cost local renewable power.
Transmission access charge (TAC) for commodity delivery	3.3	TAC charge is steadily reduced as imports are replaced with local power on the distribution grid.
PCIA (exit fee) charge	0.7	See TAC charge savings explanation.

Table 4 compares the modeled financial results of the two NewGen T&D cost scenarios included in the Phase 1 report, book asset value (OCLD) and high asset value (RCNLD), and the EDU scenario. The commodity expense is held constant across the three scenarios, meaning these potential savings are not included. As shown in Table 4, the best case (OCLD) NewGen T&D scenario reduces rates 1.5 percent in the first year, \$8 billion over 20 years, and \$15 billion over 30 years. In contrast, the EDU scenario using revised key input assumptions reduces rates about 20 percent in the first year, \$37 billion over 20 years, and \$108 billion over 30 years.

Table 4. Economic Benefits of Public Power in San Diego, NewGen T&D versus EDU D-Only Scenarios, with Commodity Expense Held Constant in Each Scenario

Parameter	Original NewGen 2023 Pro Forma, 1x Book Value ¹⁰	Original NewGen 2023 Pro Forma, 2.5x Book Value ¹¹	Modified EDU D-Only 2025 Pro Forma, 1.35x Book Value
First year rate reduction, %	1.5%	-7.3%	19.3%
20-year savings compared to SDGE, \$ billion	8	2	37 ¹²
30-year savings compared to SDGE, \$ billion	15	6	108

¹⁰ This is “*Original Cost Less Depreciation – OCLD*”, also known as “book value”.

¹¹ This is “*Replacement Cost New Less Depreciation – RCNLD*”, approximately 2.5x higher than book value.

¹² The value shown is for the switch from SDGE to an EDU only, without including additional potential savings from lower electricity commodity costs.

Figure 1 translates the 2025 pro forma model output into a bar chart that compares the (1) EDU year-to-year savings (green bars) to the (2) NewGen best case distribution-only scenario (blue bars) and (3) the NewGen T&D (red bars) scenario. As shown in Figure 1, the selection of a NewGen D-only utility configuration over the NewGen T&D configuration evaluated in the Phase 1 report by itself generates substantial additional savings. Lower EDU fixed cost growth and lower NBCs are primary contributors to the greater EDU savings (green bars).

Figure 2 compares the residential rates calculated by the 2025 pro forma model for the EDU base case scenario (solid red curve) and the SDGE distribution-only scenario using the 2023 NewGen financial model assumptions (solid blue curve). The starting year for the residential rate comparison is 2024 following the modeling timeline used in the Phase 1 report. The dashed red and blue lines represent the residential rate comparison between SDGE and a San Diego municipal public T&D utility modeled in the Phase 1 report.

Figure 1. Annual Savings, EDU (green) vs NewGen D-only (blue) and NewGen T&D (red)

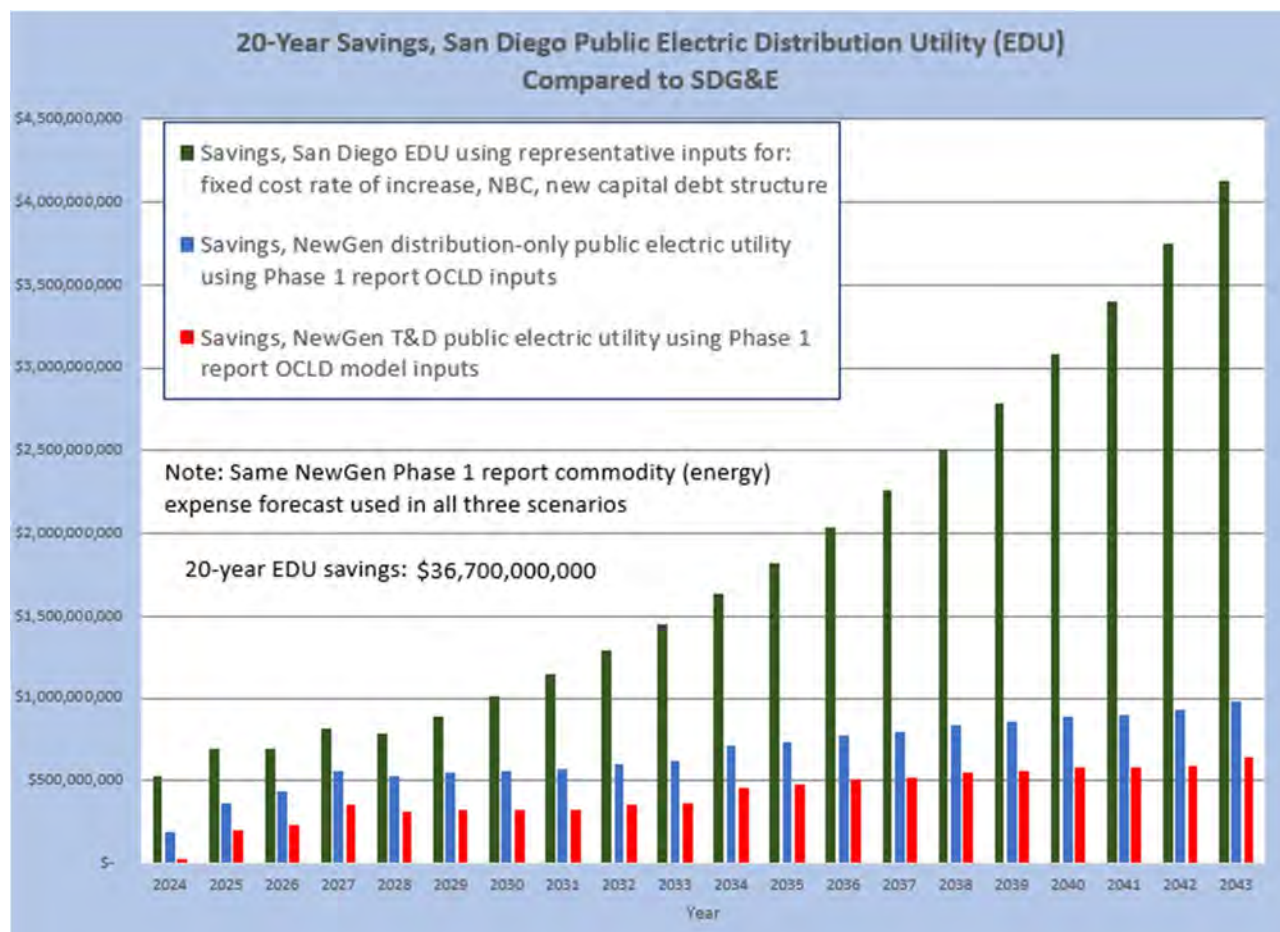


Figure 2. Projected Residential Rates, EDU (solid red) vs SDGE (solid blue)

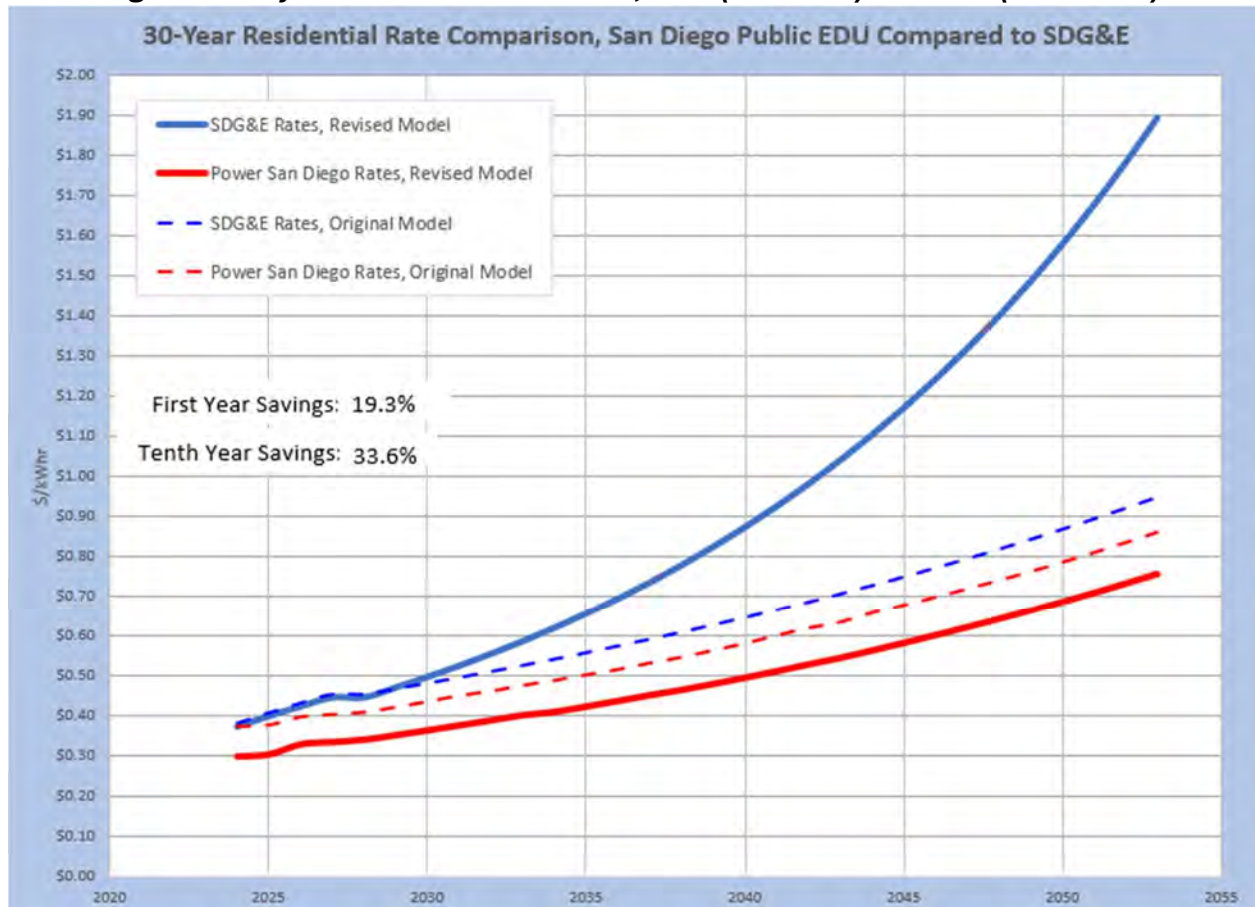


Table 5 provides supporting information on the: 1) UDC cost assumptions used by NewGen and 2) the modified assumptions used to develop the EDU scenario. The original NewGen assumption is presented for each parameter listed, followed by the modified parameter used in the EDU scenario. The final column provides reference information for the modified value used in the EDU scenario.

Table 5. Pro Forma Assumptions for UDC Costs

Parameter	Original NewGen Value	Revised EDU Value	Citation for Revised Value
SDGE UDC growth rate	3%	7%	Historic SDGE UDC growth rate since 2017, > 8 percent, projected near-term future UDC growth rate > 8 percent. ¹³
EDU UDC growth rate (%)	3%	unchanged	Use value in original 2023 pro forma. It is consistent with actual average SoCal public utility UDC growth rates over prior decade.
Non-Bypassable Charges (NBC)	10%	5%	Phase 1, p. 8-5, “NBC is 2-3 cents/kWh of rate.” SDGE residential rate in 2023 was 47.5 cents/kWh (US BLS). NBC is 4 to 6 percent of rate.
Capital additions, debt service	Assume 50% is debt-financed	Assume 100% is debt-financed	NewGen/MRW, 2020, MRW p. ES-7: “. . . the EDU issues tax-free debt to pay for capital additions.”
Capital retirement replacement cost	Assume 50% is debt-financed	Assume 100% debt-financed	See previous citation.
Original asset OCLD “book value” multiplier	1.0x	1.35x	Phase 1, p. 8-5, “final asset purchase price = 1.2x to 1.5x OCLD (book value)”. Use midrange, 1.35x
Severance: EDU configuration is distribution only	T&D configuration, severance = \$711 million	Distribution-only configuration, severance = \$254 million	EDU is a distribution-only utility, not T&D. Therefore, use severance cost of \$254 million.
Debt Service Coverage Ratio (DSCR)	1.5x	1.2x	Maintain the DSCR legally binding coverage ratio of 1.2x.

This study holds the commodity expense growth rate constant between SDGE and the EDU, as NewGen did in the Phase 1 report. This allows an apples-to-apples comparison of EDU economic benefit based solely on modified assumptions to UDC parameters.

However, this approach presumes that lower-cost power supply options will not be available to the public utility. In fact, locating the power supply on the EDU distribution grid in the City would avoid charges currently imposed on power imported over the SDGE transmission system and would likely produce substantial commodity cost savings. The assumptions used to project these commodity cost savings – a lower EDU commodity cost

¹³NewGen Phase 1 report, p. 8-4. “It is assumed that SDG&E UDC rates will grow between approximately 8% and 12% annually over the 2025 to 2027 timeframe. (This) . . . is consistent with historic SDG&E rate increases of approximately 7% to 15% since 2020.”; NewGen pro forma xls model, “Historic SDG&E” tab, cell I25.

growth rate, reduction in PCIA (exit fee) charges, and reduction in transmission access charges (TAC) - are shown in Table 6.

Table 6. Pro Forma Assumptions for Potential Commodity Expense Savings

Parameter	Original NewGen Value	Revised EDU Value	Citation for Revised Value
EDU commodity \$/kWh growth rate	3% (starting in 2029)	0%	10% per year local solar plus storage (SPS) substitution of imports, at < \$0.10/kWh, nullifies commodity cost increase. ¹⁴ See EDU Power Supply Plan.
PCIA reduction	\$0.042/kWh	Reduces 10% per year	Assumption is 10% per year reduction of imports through 2033, PCIA declines proportionately - reaches zero PCIA charge in Year 10.
Transmission Access Charge (TAC)	\$101,234,000 (in 2024)	Reduce imports, and TAC, by 10% per year	Imports will be reduced by 10% per year starting in base year.

III. Pro Forma Assumptions

The pro forma assumptions used in the EDU scenario fall into two broad categories: 1) UDC (non-energy) expenses and 2) commodity (energy) expenses.

A. UDC Expenses

This section describes the main UDC cost elements included in the pro forma analyses, the assumptions underlying those cost elements, and the model results. The assumed input values were balanced by a requirement to maintain a debt service coverage ratio (DSCR) margin of at least 20 percent (1.2x) to ensure that EDU debt obligations are met.

1. Initial Purchase Costs

The projected initial purchase costs sum to \$2.9 billion and include the: 1) poles and wires distribution system assets in the City, 2) the cost of rearranging distribution lines at the borders with other jurisdictions to keep those lines entirely within the City, known as “severance”, and 3) reserve funds to ensure the financial security of the EDU. These initial purchase costs are not tax-exempt. The NewGen assumption of a 5 percent interest, 30-year non-tax-exempt bond to fund the initial purchase is also used for the EDU.

Asset value: The NewGen Phase 1 report provides two values for SDGE poles and wires assets in the City, an OCLD (aka “book value”) of \$1.7 billion and a Reproduction Cost New

¹⁴ “All-in” 2025 SDCP commodity charge in pro forma = \$1,142,928,000 ÷ 7,384,907,000 kWh = \$0.155/kWh.

Less Depreciation (RCNLD) of \$4.2 billion. NewGen also states that “*reasonable to assume that a prudent seller . . . would likely look for a multiple of OCLD, such as 1.2x to 1.5x . . .*”¹⁵ This is consistent with the 2020 NewGen study prepared for the City, where NewGen found that the median OCLD multiplier of fourteen recent utility sales transactions was 1.22x.¹⁶ The assumption used for the EDU is the middle of the 1.2x to 1.5x range stated by NewGen, a value of 1.35x. With this assumption the asset sale price is \$1.7B x 1.35 = \$2.26 billion.

Severance: NewGen estimates a distribution severance cost of \$254 million. The same distribution system severance cost is assumed for the EDU scenario.

Reserve costs: Financial reserves are necessary to assure the financial stability of the public utility and include reserve stabilization funds and a working capital reserve. NewGen set the reserve stabilization fund value at 20 percent of the annual operating expenses for the first year. The purpose of the reserve stabilization fund is to act as a financial buffer when EDU financial performance is weaker than expected for unanticipated reasons. These costs are shown in Table 7.

Table 7. Reserve Costs

Item	Predicted Cost
Reserve Stabilization Fund	\$161,815,644
Working Capital (days cash)	90
Working Capital Deposit	\$199,498,739
Total	\$361,314,382

Ninety days of working capital are also included. Working capital reflects the fact that the EDU will have bills to pay prior to receiving payment from its customers. The working capital fund will cover the time lag between when invoices for ongoing expenses are issued and when income is received from the customers. Per industry standard, total working capital is set to equal three months of operating expenses.

2. Startup Costs

Startup costs are the costs necessary to make the EDU an operational utility. These costs include staff, consultants, equipment, and buildings. Table 8 shows the estimated startup costs identified by NewGen in the Phase 1 report for a City of San Diego T&D public electric utility. These same startup costs are also assumed for the EDU. NewGen assumes that startup costs are financed with a 30-year tax-exempt bond at 4 percent interest. The same assumption is used for the EDU.

¹⁵ NewGen, Phase 1 Report, July 2023, p. 8-3.

¹⁶ NewGen/Advisian/MRW, *Electric and Gas Franchise Agreements Consultant Report – City of San Diego*, April 2020, pdf p. 75.

Table 8. Startup Costs

Item	Predicted Cost
Regulatory	\$75,000,000
Professional Services	\$25,000,000
Operations	\$25,000,000
Equipment	\$75,000,000
Vehicles	\$50,000,000
Information Technology	\$50,000,000
Total	\$300,000,000

3. Non-Bypassable Charges (NBC)

NBCs include nuclear de-commissioning, wildfire mitigation, and competitive transition charges, among others. NewGen estimates NBCs at 2 to 3 cents per kWh, translating this assumption to 5 to 10 percent of the total utility revenue requirement. The residential SDGE rate was 47.5 cents per kWh the year (2023) that NewGen issued the Phase 1 study. NewGen’s estimated NBC cost range is 4 to 6 percent of the 2023 SDGE residential rate. For this reason, the project team assumes an NBC charge that is 5 percent, and not 10 percent as assumed by NewGen in the 2023 pro forma.

4. Capital Additions and Capital Replacement Payments

New capital additions and replacement of aging capital equipment will be done on a 100 percent debt-financed basis. Both cost categories can be financed with tax-free bonds at the assumed 4 percent interest rate (over 30 years) used by NewGen in the Phase 1 report. Use of 100 percent debt financing is a recognized industry alternative for this expense category. For example, the financial analysis that accompanied the 2020 municipalization assessment NewGen prepared for San Diego analyzed paying for capital additions using 100 percent tax-exempt debt financing.¹⁷

5. Fixed Costs – Growth Rate

a. SDGE: NewGen assumes a 3.0 percent growth rate for SDGE UDC costs in its 2023 pro forma. This is substantially lower than the actual SDGE UDC cost rate of increase since 2017, which was greater than 8 percent per year, and substantially lower than the projection for SDGE’s UDC growth rate of greater than 8 percent per year in near-term future years.¹⁸ For these reasons, the assumed SDGE UDC cost rate of increase in this study is conservatively estimated at 7 percent per year.

¹⁷ NewGen Strategies/Advisian/MRW, *Electric and Gas Franchise Agreements Consultant Report*, prepared for City of San Diego, April 22, 2020, pdf. p. 110 (p. ES-7).

¹⁸ NewGen, Phase 1 Report, p. 8-10; NewGen xls financial model, “Historic SDG&E” tab, cell I25 (8.33%).

b. EDU: NewGen assumes a 3.0 percent rate of increase for public utility UDC costs in the 2023 pro forma. This EDU UDC growth rate is consistent with actual average UDC growth rates of selected public utilities in Southern California in the 2014-2023 period.¹⁹ For this reason, the UDC growth rate assumed by NewGen for the public utility scenario in the 2023 pro forma is retained.

6. Initial Purchase Taxable Debt Service

To facilitate a significant electricity rate decrease at the inception of EDU operations, the bonds issued would incorporate levelized principal and levelized interest payments over 30 years, with no principal payments in the first 2 years. This levelized bond structure is acceptable to bond issuers.²⁰ NewGen assumes a two-year deferral in principal payments on the bonds in its 2023 pro forma. The project team adopted the same two-year deferral of principal payments as a base case assumption in its EDU pro forma.

7. Maintain Debt Service Coverage Ratio Minimum at or Above 1.2x

The proposed utility must maintain a Debt Service Coverage Ratio (DSCR) of 1.2x to ensure it can meet its bond repayment obligations and retain an adequate bond rating. The project team targets a DSCR of at least 1.2x in each of the 30 years covered by the EDU pro forma. NewGen in contrast opts for a higher DSCR target of 1.5x in its 2023 pro forma. The actual DSCR is more than 1.8x throughout the 30-year period evaluated in the NewGen 2023 pro forma, incrementally reducing the cost savings of the public utility compared to SDGE.

B. Commodity (Energy) Expenses

The commodity expense is the cost of the electricity supply that is delivered over the grid. The NewGen Phase 1 report assumes the municipal utility will use the same imported power supply used by SDGE customers currently, and that all municipal utility savings will be generated by lower UDC costs only. However, substantial additional customer savings can be achieved by substituting local renewable power located on the distribution grid in the City for power imported over the SDGE transmission grid. The potential customer savings from this local power supply approach are estimated at \$10 billion over the first 20 years of EDU operation, as detailed in Table 3. The commodity expense savings would increase to \$30 billion over 30 years. The savings consist of three elements: lower energy costs, elimination of PCIA (exit fee) charges, and elimination of transmission access

¹⁹ M. Hughes, compilation of rate increases for public electric utilities LADWP, SMUD, IID, Riverside, and Anaheim, 2016-2023, xls spreadsheet, December 7, 2023. Average 2016-2023 public utility rate of increase = 2.0 percent.

²⁰email reply to B. Powers re structure of debt, Dan Aschenbach, AGVP Advisory, Credit and Risk Consulting, February 21, 2025.

charges. The bases for these savings are described in more detail in the following paragraphs.

1. Commodity Cost Rate of Increase

NewGen assumes a commodity cost, consisting entirely of electricity imported over the transmission grid, of \$0.155/kWh in 2025. This is substantially higher than the cost of rooftop solar with four hours of battery storage,²¹ which ranges from \$0.06 to \$0.12/kWh.²² The EDU pro forma sensitivity scenario “EDU commodity savings” assumes that there will be no growth in commodity cost over time as local solar plus storage (SPS) systems displace electricity imports at a rate of 10 percent per year. NewGen assumes a commodity cost growth rate of 3 percent (starting in 2029). The substantially lower projected cost of local SPS power, assumed for the purposes of this analysis to be an average of \$0.10/kWh, neutralizes the rise in commodity cost projected by NewGen in its 2023 pro forma.²³

2. PCIA Reduction

A Power Charge Indifference Adjustment (PCIA) “exit fee” charge is imposed on imported power to address legacy high-cost power supply contracts. As SPS resources are built out in the EDU and power imports over the transmission system are steadily reduced, the PCIA fees imposed on imported power will also decline proportionately at the assumed target rate of 10 percent per year.

3. Transmission Access Charges

The EDU power supply plan developed by the project team is to expand rooftop, commercial, and industrial PV, combined with battery storage capacity, within the city limits. The objective is to reduce the delivered cost of energy supply. As noted, the target is to reduce power imports by at rate of 10 percent per year.²⁴ SDGE customers pay the highest transmission access charges (TAC) in California. There will be a concomitant reduction in TAC charges with the reduction in imported power. The objective is to reduce the TAC charge burden to zero within ten years of startup of the EDU.

²¹ Four hours of battery storage at the rated capacity of the associated solar resource qualifies the solar resource as 100 percent available capacity for reliability purposes. See: Lumen, *Energy Storage Procurement Study*, prepared for CPUC, May 31, 2023, p. 55, p. 72.

²² B. Powers, *EDU Power Supply Plan*, March 2025, p. 2.

²³ A major difference between the NewGen and EDU conceptual approaches is that NewGen assumes that San Diego Community Power will be the sole commodity energy supplier to the public utility, and that all of the energy supply will be imported and subject to TAC and PCIA payments. The EDU pro forma sensitivity case assumes that new power supply will be developed on the low-voltage distribution grid in the City at a rapid pace, either by SDCP or the EDU, to “back out” higher-cost imported power burdened with TAC and PCIA charges.

²⁴ This is equivalent to adding 400 MWac of solar per year in the City.

IV. Results – Pro Forma Tables

The results of the EDU pro forma analysis comparing the financial performance of the EDU and SDGE are shown in Tables 9 and 10. Tables 9 and 10 document the savings achieved by lower EDU UDC costs only. These tables do not assume any additional savings from reduced EDU commodity expenses relative to SDGE.

Table 9 summarizes the annual and cumulative savings realized by the EDU over a 30-year period. Table 10 documents the reduction in EDU residential rates relative to SDGE over the first 10 years of EDU operation.

Tables 11 through 14 provide the detailed EDU pro forma output for each of the first 10 years of EDU operation. Tables 11 through 14 document the savings achieved by lower EDU UDC costs only. These tables do not assume any additional savings from reduced EDU commodity expenses relative to SDGE.

Table 9. Annual and Cumulative EDU Savings Versus SDGE Base Case, 30 Years, 2024-2053

Savings (\$000,000)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Annual	527.3	690.7	688.8	819.1	781.9	892.0	1,012.3	1,143.4	1,289.8	1,450.3
Cumulative	527.3	1,218.0	1,906.8	2,725.9	3,507.8	4,399.8	5,412.1	6,555.5	7,845.3	9,295.5

Savings (\$000,000)	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Annual	1,633.9	1,824.6	2,034.1	2,262.5	2,511.5	2,782.6	3,077.7	3,397.7	3,745.8	4,127.6
Cumulative	10,929.4	12,754.0	14,788.1	17,050.6	19,562.0	22,344.6	25,422.4	28,820.1	32,565.9	36,693.5

Savings (\$000,000)	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Annual	4,544.4	4,999.1	5,494.9	6,035.2	6,623.7	7,264.4	7,961.2	8,718.8	9,542.2	10,436.8
Cumulative	41,237.9	46,237.1	51,731.9	57,767.1	64,390.8	71,655.2	79,616.4	88,335.2	97,877.3	108,314.1

Table 10. Residential Rate Reduction Comparison, EDU versus SDGE, 10 Years, 2024-2033

Energy Costs, \$/kWh	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
SDGE	0.155	0.155	0.155	0.155	0.155	0.159	0.164	0.169	0.174	0.179
EDU	0.155	0.155	0.155	0.155	0.155	0.159	0.164	0.169	0.174	0.179
% Rate Reduction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Fixed Costs (UDC), \$/kWh	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
SDGE	0.216	0.242	0.266	0.289	0.289	0.309	0.330	0.354	0.378	0.405
EDU	0.144	0.149	0.175	0.180	0.186	0.193	0.200	0.208	0.215	0.223
% Rate Reduction	33.1	38.3	34.4	37.4	35.4	37.5	39.5	41.3	43.2%	45.0

Total Rates, \$/kWh	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
SDGE	0.371	0.397	0.421	0.443	0.443	0.468	0.495	0.523	0.553	0.584
EDU	0.2992	0.304	0.329	0.335	0.341	0.352	0.364	0.377	0.389	0.402
% Rate Reduction	19.3	23.4	21.8	24.4	23.1	24.7	26.4	27.9	29.6	31.2

Table 11. EDU Pro Forma Commodity (Energy) and UDC Expenses, 10 Years, 2024-2033

EDU REVENUE/EXPENSE PROJECTION	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033</u>
Total Revenue Requirement	\$2,060,593	\$2,194,693	\$2,240,343	\$2,445,204	\$2,506,834	\$2,570,240	\$2,677,946	\$2,790,771	\$2,909,523	\$3,030,841	\$3,157,374
Projected Commodity Expense		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Residential	\$510,836	\$464,356	\$468,535	\$472,752	\$477,006	\$481,300	\$500,200	\$519,843	\$540,257	\$561,473	\$583,522
Commercial - Small	\$574,626	\$522,122	\$526,829	\$531,577	\$536,369	\$541,204	\$562,465	\$584,561	\$607,525	\$631,391	\$656,195
Commercial - Med./Large	\$74,741	\$67,912	\$68,525	\$69,142	\$69,765	\$70,394	\$73,160	\$76,034	\$79,021	\$82,125	\$85,351
Industrial	\$91,062	\$81,956	\$81,956	\$81,956	\$81,956	\$81,956	\$84,414	\$86,947	\$89,555	\$92,242	\$95,009
Agriculture	\$3,954	\$3,605	\$3,652	\$3,700	\$3,748	\$3,797	\$3,962	\$4,134	\$4,314	\$4,501	\$4,696
Lighting	\$3,307	\$2,976	\$2,976	\$2,976	\$2,976	\$2,976	\$3,066	\$3,158	\$3,252	\$3,350	\$3,451
Total Commodity Expenses	\$1,258,526	\$1,142,928	\$1,152,472	\$1,162,103	\$1,171,821	\$1,181,627	\$1,227,267	\$1,274,676	\$1,323,924	\$1,375,082	\$1,428,225
Projected Utility Distribution Co. Expense											
TAC Service Costs	\$95,545	\$101,234	\$107,189	\$113,494	\$120,171	\$127,242	\$134,729	\$142,657	\$151,052	\$159,943	\$169,358
O&M/A&G	\$416,212	\$440,768	\$465,943	\$487,774	\$508,132	\$529,181	\$551,118	\$574,101	\$598,324	\$622,946	\$648,602
Non-Bypassable Regulatory Charges	\$103,380	\$110,492	\$113,224	\$123,703	\$126,890	\$130,169	\$135,668	\$141,428	\$147,494	\$153,687	\$160,146
Public Benefits	\$58,927	\$62,980	\$64,538	\$70,511	\$72,327	\$74,196	\$77,331	\$80,614	\$84,071	\$87,601	\$91,283
Payment In-Lieu of Taxes	\$135,015	\$144,302	\$147,871	\$161,556	\$165,719	\$170,001	\$177,182	\$184,706	\$192,627	\$200,715	\$209,151
Total UDC Expenses	\$809,078	\$859,776	\$898,765	\$957,039	\$993,240	\$1,030,788	\$1,076,026	\$1,123,506	\$1,173,568	\$1,224,891	\$1,278,539
TOTAL Operating Expense	\$2,067,605	\$2,002,704	\$2,051,237	\$2,119,143	\$2,165,061	\$2,212,415	\$2,303,293	\$2,398,183	\$2,497,492	\$2,599,973	\$2,706,764
Net Operating Surplus/(Deficit)		\$207,130	\$213,252	\$354,922	\$372,742	\$390,964	\$410,059	\$430,386	\$452,382	\$473,759	\$496,156

Table 12. EDU Pro Forma Non-Operating (Debt Service) Expenses, 10 Years, 2024-2033

Non-Operating Expense	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033</u>
Debt Service - Purchase Price (Taxable)		\$92,961	\$92,961	\$197,634	\$197,634	\$197,634	\$197,634	\$197,634	\$197,634	\$197,634	\$197,634
Debt Service - Purchase Price (Tax-Exempt)		\$17,613	\$17,613	\$17,613	\$17,613	\$17,613	\$17,613	\$17,613	\$17,613	\$17,613	\$17,613
Debt Service - Capital Additions (Tax-Exempt)		\$14,414	\$28,247	\$42,798	\$58,030	\$73,527	\$89,756	\$107,068	\$125,890	\$143,929	\$162,819
Debt Service - Retirements (Tax-Exempt)		\$2,142	\$4,431	\$6,877	\$9,466	\$12,190	\$15,056	\$18,071	\$21,245	\$24,584	\$28,091
Pay-As-You-Go Capital		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Add. Cash Required/(Not Necessary) for Reserves		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Add. Cash Required for Debt Service Cov.		\$80,000	\$70,000	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000
TOTAL Non-Operating Expense	\$0	\$207,130	\$213,252	\$354,922	\$372,742	\$390,964	\$410,059	\$430,386	\$452,382	\$473,759	\$496,156
Total Expenses	\$2,067,605	\$2,209,833	\$2,264,489	\$2,474,065	\$2,537,803	\$2,603,379	\$2,713,351	\$2,828,568	\$2,949,874	\$3,073,733	\$3,202,920
Excess Cash Surplus/(Deficit)		\$80,000	\$70,000	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000
Contributions/(Withdrawals) to Working Capital		-\$12,501	-\$9,614	-\$14,369	-\$8,926	-\$9,259	-\$11,155	-\$11,707	-\$12,344	-\$12,655	-\$13,228
Contributions/(Withdrawals) to Capital		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions/(Withdrawals) to RSF		-\$67,499	-\$60,386	-\$75,631	-\$81,074	-\$80,741	-\$78,845	-\$78,293	-\$77,656	-\$77,345	-\$76,772
Net Annual Surplus/(Deficit) AFTER CONTRIBUTIONS		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Table 13. EDU Pro Forma Reserve Funds, 10 Years, 2024-2033

FINANCIAL RESERVES		<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033</u>
Working Capital Fund											
Days Cash Annual Op Exp	90	\$212,000	\$221,613	\$235,982	\$244,908	\$254,167	\$265,322	\$277,029	\$289,373	\$302,028	\$315,256
Beginning Balance	\$199,499	\$199,499	\$212,000	\$221,613	\$235,982	\$244,908	\$254,167	\$265,322	\$277,029	\$289,373	\$302,028
Contributions / (Withdrawals)		\$12,501	\$9,614	\$14,369	\$8,926	\$9,259	\$11,155	\$11,707	\$12,344	\$12,655	\$13,228
Ending Balance		\$212,000	\$221,613	\$235,982	\$244,908	\$254,167	\$265,322	\$277,029	\$289,373	\$302,028	\$315,256
Days Cash (UDC Op. Ex.)		90	90	90	90	90	90	90	90	90	90
Rate Stabilization Fund											
Target Balance	20.0%	\$171,955	\$179,753	\$191,408	\$198,648	\$206,158	\$215,205	\$224,701	\$234,714	\$244,978	\$255,708
Beginning Balance	\$161,816	\$161,816	\$229,315	\$289,701	\$365,332	\$446,406	\$527,147	\$605,993	\$684,285	\$761,941	\$839,286
Contributions / (Withdrawals)		\$67,499	\$60,386	\$75,631	\$81,074	\$80,741	\$78,845	\$78,293	\$77,656	\$77,345	\$76,772
Ending Balance	\$161,816	\$229,315	\$289,701	\$365,332	\$446,406	\$527,147	\$605,993	\$684,285	\$761,941	\$839,286	\$916,058
In Excess of Target		\$57,360	\$109,948	\$173,924	\$247,758	\$320,990	\$390,788	\$459,584	\$527,228	\$594,308	\$660,350
Days Cash (UDC Op. Ex.)		97	118	139	164	187	206	222	237	250	262

Table 14. EDU Pro Forma Key Debt Service Repayment Performance Indicators, 10 Years, 2024-2033

<u>KEY PERFORMANCE INDICATORS</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033</u>
<u>Revenue Requirement (\$000)</u>										
Annual Requirement	\$2,067,605	\$2,209,833	\$2,264,489	\$2,474,065	\$2,537,803	\$2,603,379	\$2,713,351	\$2,828,568	\$2,949,874	\$3,073,733
<u>Growth Rates</u>										
Total Electricity Rates		2.47%	9.25%	2.58%	2.58%	4.22%	4.25%	4.29%	4.20%	4.20%
<u>Liquidity and Debt Service Coverage Ratio</u>										
Annual UDC Operating Expenses	\$859,776	\$898,765	\$957,039	\$993,240	\$1,030,788	\$1,076,026	\$1,123,506	\$1,173,568	\$1,224,891	\$1,278,539
Targeted Cash and Reserve Balances	\$383,955	\$401,366	\$427,390	\$443,556	\$460,325	\$480,527	\$501,730	\$524,087	\$547,006	\$570,964
Cash and Reserve Balances	\$441,314	\$511,314	\$601,314	\$691,314	\$781,314	\$871,314	\$961,314	\$1,051,314	\$1,141,314	\$1,231,314
Excess Cash Surplus/(Deficit)	\$57,360	\$109,948	\$173,924	\$247,758	\$320,990	\$390,788	\$459,584	\$527,228	\$594,308	\$660,350
Days Cash	187	208	229	254	277	296	312	327	340	352
% Cash	51.3%	56.9%	62.8%	69.6%	75.8%	81.0%	85.6%	89.6%	93.2%	96.3%
Net Operating Surplus	\$207,130	\$213,252	\$354,922	\$372,742	\$390,964	\$410,059	\$430,386	\$452,382	\$473,759	\$496,156
Minimum Coverage Requirement	\$152,556	\$171,902	\$317,906	\$339,291	\$361,157	\$384,070	\$408,463	\$434,858	\$460,511	\$487,387
Excess Cash Surplus/(Deficit)	\$54,574	\$41,350	\$37,016	\$33,452	\$29,807	\$25,988	\$21,923	\$17,524	\$13,248	\$8,769
Annual Debt Service	\$127,130	\$143,252	\$264,922	\$282,742	\$300,964	\$320,059	\$340,386	\$362,382	\$383,759	\$406,156
DSCR	1.63x	1.49x	1.34x	1.32x	1.30x	1.28x	1.26x	1.25x	1.23x	1.22x

V. Conclusion

An electric distribution utility (EDU) serving San Diego can save customers about 20 percent in electricity rates the first year of operation, 31 percent in the tenth year, \$37 billion in overall savings over 20 years, and \$108 billion over 30 years, from lower UDC costs alone, when realistic assumptions are used for the principal variables in the EDU pro forma utility financial model. Additional potential savings of \$10 billion over 20 years can be realized by transitioning from exclusive reliance on power imports delivered over the SDGE transmission grid to local power resources developed on the EDU distribution grid.