FILED
June 28, 2023
INDIANA UTILITY
REGULATORY COMMISSION

VERIFIED DIRECT TESTIMONY

OF

DUSTIN J. ILLYES

ON BEHALF OF

INDIANAPOLIS POWER & LIGHT COMPANY

D/B/A AES INDIANA

Cause No. 45911

SPONSORING AES INDIANA ATTACHMENTS DJI-1.1 THROUGH DJI-3.1

VERIFIED DIRECT TESTIMONY OF DUSTIN J. ILLYES

ON BEHALF OF AES INDIANA

1 ## 1. INTRODUCTION

2 **Q1. Please state your name, employer, and business address.**

3 A1. My name is Dustin J. Illyes. I am employed by AES US Services, LLC, ("AES Services",
4 also "Service Company"), which is the service company that serves Indianapolis Power &
5 Light Company d/b/a AES Indiana ("AES Indiana", "IPL", or "the Company"). The
6 Service Company is located at One Monument Circle, Indianapolis, Indiana 46204.

7 **Q2. What is your position with AES Services?**

8 A2. I am the Treasurer of AES's US Utilities and Conventional Generation businesses. In that
9 role, I serve as Treasurer of: AES Indiana; AES Indiana's parent company, IPALCO
10 Enterprises, Inc. ("IPALCO"); IPALCO's parent company, AES U.S. Investments; The
11 Dayton Power and Light Company d/b/a AES Ohio ("AES Ohio"); and of DP&L's parent
12 company, DPL, Inc, among other AES entities.

13 **Q3. On whose behalf are you submitting this direct testimony?**

14 A3. I am submitting this testimony on behalf of AES Indiana.

15 **Q4. Please describe your duties as Treasurer.**

16 A4. As Treasurer, I report to the Chief Financial Officer and have direct responsibility and
17 oversight for treasury related activities of AES Indiana and other AES US companies,
18 including but not limited to capital markets financing activity, cash management, investor
19 relations, interaction with rating agencies, and maintaining banking relationships.

1 **Q5. Please summarize your education and professional qualifications.**

2 A5. I received a Bachelor of Science in Business degree with a concentration in Finance from
3 Indiana University in May 2007. I also received a Master of Business Administration
4 degree with a concentration in Finance from Indiana University in May 2015.

5 **Q6. Please summarize your prior work experience.**

6 A6. From 2007-2009, I worked for The Bank of New York Mellon as a trust associate within
7 their collateralized debt obligation group. From 2009-2015, I was an asset manager for
8 PNC Bank in its commercial banking department. In 2015, I joined AES as a senior analyst
9 within the treasury department focusing on the corporate finance efforts of AES's United
10 States affiliates. In April 2018, I was promoted to Manager, Corporate Finance and then to
11 Assistant Treasurer in April 2020. I was promoted to my current role in April 2022.

12 **Q7. Have you testified previously before the Indiana Utility Regulatory Commission**
13 **("Commission") or any other regulatory agency?**

14 A7. Yes. I testified in AES Indiana's most recent financing petition, Cause No. 45575.
15 Additionally, in 2020, I testified on behalf of AES Ohio in support of their Distribution
16 Rate Case, Case No.20-1651-EL-AIR before the Public Utilities Commission of Ohio.

17 **Q8. What is the purpose of your testimony in this proceeding?**

18 A8. My testimony and accompanying attachments present the Company's capital structure,
19 Weighted Average Cost of Capital ("WACC") and credit ratings.

20 **Q9. Are you sponsoring or co-sponsoring any financial exhibits or attachments?**

21 A9. Yes. I sponsor or co-sponsor the following exhibits or attachments:

1 • AES Indiana Attachment DJI-1.1 & 1.2 – Moody's Investors Service ("Moody's")

2 • AES Indiana Attachment DJI-2.1 & 2.2 – S&P Global Ratings ("S&P")

3 • AES Indiana Attachment DJI-3.1 – Fitch Ratings ("Fitch")

4 • AES Indiana Financial Exhibit AESI-CC, Schedules CC1 – Long-Term Debt

5 • AES Indiana Financial Exhibit AESI-CC, Schedules CC2 – Weighted Average Cost
6 of Capital

7 **Q10. Did you submit any workpapers?**
8 A10. Yes. AES Indiana is submitting workpapers in electronic format that support the basic rate
9 case schedules. I am sponsoring the workpapers that support the financial statements and
10 schedules that I sponsor.

11 **Q11. Were these exhibits, attachments, or workpapers, or portions thereof, that you are**
12 **sponsoring or co-sponsoring prepared or assembled by you or under your direction**
13 **and supervision?**
14 A11. Yes.

15 **2. CAPITAL STRUCTURE**

16 **Q12. What is AES Indiana's capital structure and weighted average cost of capital**
17 **("WACC"), as of December 31, 2022, which is the end of the test year?**
18 A12. The Company's WACC, as of December 31, 2022, is 7.22%. AES Indiana Financial
19 Exhibit AESI-CC, Schedule CC2 depicts how this calculation is derived. This schedule
20 computes the total cost of capital for AES Indiana, including common equity, long term
21 debt, Accumulated Deferred Federal Income Taxes ("DFIT") and customer deposits. Line

1 numbers one through three identify the investor-supplied capital, whereas line numbers
2 four through seven are added to show the regulatory capital structure. As shown on AES
3 Indiana Financial Exhibit AESI-CC, Schedule CC2, AES Indiana's WACC is calculated
4 by taking the cost of each capital component multiplied by its proportional weight and then
5 summing those percentages. The cost of each line item in the capital structure is determined
6 separately as explained herein.

7 **Q13. Please describe the investor-supplied capital structure components that you have**
8 **reflected in the calculation of AES Indiana's cost of capital.**

9 A13. AES Indiana seeks to maintain the financial strength of an investment grade utility so that
10 we can deliver service at a reasonable cost to our customers. Maintaining an investment
11 grade profile is important to ensure we have reliable access to the credit markets at
12 attractive interest rates during all types of economic cycles, ultimately benefiting our
13 customers. This in turn provides the ability to meet our financial obligations during periods
14 of heavy capital expenditures which I will discuss later in my testimony. AES Indiana
15 Financial Exhibit AESI-CC, Schedule CC2 includes AES Indiana investor-supplied
16 capitalization as of December 31, 2022. This includes components of long-term debt and
17 common equity. The investor-supplied capital structure as of December 31, 2022, consists
18 of 52.56% long-term debt and 47.44% common equity, which is consistent with the
19 Company's long-term targeted investor supplied capital structure.

20 **Q14. What is the basis for the common equity rate of 10.60% shown on AES Indiana**
21 **Financial Exhibit AESI-CC, Schedule CC2?**

1 A14. The common equity rate of 10.60% has been developed and recommended by AES Indiana
2 witness McKenzie.[1]

3 **Q15. How was the cost rate for Customer Deposits as shown on AES Indiana Financial**
4 **Exhibit AESI-CC, Schedule CC2 developed?**

5 A15. The cost rate for Customer Deposits is 6.00%, which is the interest rate on customer
6 deposits as provided for in the Commission's rules.

7 **Q16. Please discuss the long-term debt and cost included in the capital structure.**

8 A16. As shown on AES Indiana Financial Exhibit AESI-CC, Schedule CC1, the long-term debt
9 included in the capital structure is comprised of fifteen (15) series of First Mortgage Bonds
10 which have been issued under a Mortgage and Deed of Trust dated May 1, 1940, as
11 supplemented, and modified by various Supplemental Indentures. The fifteen series of first
12 mortgage debt mature or are subject to mandatory put dates at various dates from December
13 2024 through November 2048; range in effective interest rates from 0.97% to 6.82%; and
14 represent a total principal amount outstanding before the unamortized redemption premium
15 of $2.2 billion. Each series of debt has been issued pursuant to Orders of this Commission.
16 The calculation of the weighted average effective interest rate for the long-term debt
17 included in AES Indiana's capitalization is 4.90%. The unamortized reacquisition
18 premiums pertain to debt series which have been previously retired from the general funds
19 of the Company and amortized to interest expense on a straight-line basis, as authorized by
20 the Commission Orders in Cause Nos. 38603, 39076, and 39511. This method is required
21 by Accounting Standard Update ("ASU") No. 835-30-35 and ASU No. 835-30-20. The

[1] AES Indiana witness McKenzie, Direct Testimony, Q/A 7

1 long-term debt balances and associated costs are the actual balances as of the end of the
2 test year December 31, 2022.

3 **Q17. Please discuss whether AES Indiana issued new long-term debt during the test year**
4 **or plans to issue new long-term debt in the adjustment period ended December 31,**
5 **2023?**

6 A17. In November 2022, AES Indiana issued $350 million of first mortgage bonds due
7 December 2032 with an effective interest rate of 5.82%. This issuance is included in my
8 calculation above in AES Indiana Financial Exhibit AESI-CC, Schedule CC1. AES Indiana
9 does not plan to issue long term debt during the adjustment period.

10 **Q18. Does AES Indiana's capital structure include any preferred stock?**

11 A18. No, AES Indiana redeemed 100% of the outstanding preferred stock in December 2022,
12 thus the Company's capital structure no longer includes any preferred stock.

13 **Q19. Does AES Indiana Financial Exhibit AESI-CC, Schedule CC2 include capital**
14 **structure components for purposes of determining AES Indiana's WACC other than**
15 **the long-term debt, common equity, and customer deposits that have previously been**
16 **discussed?**

17 A19. Yes. The WACC also includes components for deferred income taxes and Post-1970
18 Investment Tax Credits ("ITC"). Deferred income taxes were included at zero cost. The
19 Post-1970 ITC were included at the overall weighted required return on investor-supplied
20 capital at 7.61%. Additionally, the WACC includes the net pre-paid pension asset at zero
21 cost as discussed by AES Indiana witness Roach.

1 **Q20. Does the Company have an ongoing need to maintain its financial integrity and to**
2 **attract additional capital?**
3 A20. Yes. It is important to maintain financial strength to allow the Company to continue to
4 provide adequate and reliable service and to attract capital on reasonable terms. The
5 Company has future capital expenditures related to on-going investments to maintain and
6 improve AES Indiana's utility systems that requires the Company to access capital markets
7 on a regular basis, including equity contributions from its ultimate parent companies, The
8 AES Corporation ("AES") and La Caisse de dépôt et placement du Québec ("CDPQ"). A
9 timely rate Order that provides a realistic opportunity for the Company to earn a fair return
10 on and of its significant capital investments is important to the Company's shareholders
11 and to the credit rating agencies.

12 **Q21. How do you define financial integrity as you are using it in your testimony?**
13 A21. I define financial integrity of a utility as having sufficient cash flow to: (a) pay all normal
14 operating expenses and capital expenditures that are necessary to ensure safe and reliable
15 electric service is provided to customers at a reasonable cost; (b) meet all contractual debt
16 obligations on a timely basis; (c) maintain appropriate capitalization levels and investment
17 grade credit ratings; (d) attract reasonably priced debt and equity capital during all
18 economic cycles to finance capital investments and refinance maturing debt on time; and
19 (e) have the opportunity to earn a reasonable rate of return.

20 **3. <u>CREDIT RATINGS</u>**

21 **Q22. What are credit ratings?**
22 A22. Credit ratings reflect a credit rating agency's independent judgment of the Company's
23 credit worthiness and its ability to meet its debt obligations. Credit committees at each

agency determine the ratings of a company based on certain quantitative and qualitative measures. These factors are used to assess the financial and business risks of fixed-income issuers. Both Fitch and S&P delineate investment grade as any rating equal to "BBB-" or above. Moody's delineates investment grade as any rating equal to "Baa3" or above. Non-investment grade ratings at Fitch and S&P are "BB+" or below and "Ba1" or below at Moody's.

Q23. Why are credit ratings important to AES Indiana and its customers?

A23. When AES Indiana issues debt, credit rating agencies rate it as to the safety of principal and interest based on the Company's ability to pay. Credit ratings are important to investors because the higher the rating, the safer the debt. But credit ratings are also important to issuers of debt because they may affect the cost of doing business and access to capital. The higher the credit rating, the less interest a company has to pay on its bonds because investors are willing to accept slightly lower interest for more safety. Also, the higher the credit rating, the more demand there is for a bond and the easier it is for a company to sell it. This is especially important to AES Indiana during our high periods of capital expenditures associated with transmission, distribution, storage system improvement charge ("TDSIC") projects and the construction of replacement generation. This capital-intensive time requires AES Indiana to be out in the debt markets frequently. The ability to issue debt at reasonable terms is advantageous not only to AES Indiana but also to our customers.

Q24. Please discuss the impact to the Company and its customers if AES Indiana's investment grade rating is not maintained.

1 A24. Financial integrity and flexibility provide the framework for operational effectiveness
2 which is necessary to provide safe and reliable service to customers at a reasonable cost.
3 Fixed income investors are limited in the amount of non-investment grade or "junk"
4 securities they can hold and purchase. This potentially limits the universe of holders and
5 purchasers of the Company's debt, serving to limit the Company's flexibility when
6 pursuing a debt offering and increasing the cost. A non-investment grade rating would lead
7 to an increase in overall financing costs and result in a higher cost of capital. Customers
8 would be adversely affected because higher capital costs lead to higher rates for electric
9 service and strain resources that could otherwise be utilized to meet our customers' ongoing
10 need for reliable electric service.

11 **Q25. Is regulatory treatment important to the rating agencies?**

12 A25. Yes. Predictability, full and timely cost recovery, and a regulatory environment supportive
13 of a utility's financial integrity are key credit considerations at all three credit rating
14 agencies. A utility operating in a stable, reliable, and highly predictable regulatory
15 environment will be scored higher than a utility that operates in an unstable, unreliable, or
16 highly unpredictable regulatory environment.

17 **Q26. Is the regulatory environment currently within Indiana viewed favorably by the**
18 **rating agencies?**

19 A26. Yes. As noted on page 2 of AES Indiana Attachment DJI-1.1, Moody's cites "fully
20 regulated utility that operates in a credit supportive regulatory environment" as one of the
21 Company's credit strengths. Within AES Indiana Attachment DJI-2.1, page 2, S&P refers
22 to "Indiana's regulatory framework currently supports AES Indiana's overall credit
23 quality…." Further, on page 3 of AES Indiana Attachment DJI-3.1, Fitch references "AES

1 Indiana and IPALCO's ratings and Outlook reflect the favorable regulatory environment
2 in Indiana." While the credit rating agencies currently view the Indiana regulatory
3 environment as supportive, they also point to any future deterioration or weakening in the
4 supportiveness of the regulatory environment as one of the key factors that could lead to a
5 downgrade for AES Indiana. Any negative change in the ratings of AES Indiana would
6 have a negative impact on both the Company and its customers.

7 **Q27. What were AES Indiana's credit ratings as of December 31, 2022?**

8 A27. As of December 31, 2022, AES Indiana's credit ratings assigned by the credit rating
9 agencies were as follows on Table 1:

10 **Table 1: AES Indiana's Credit Rating**

	Moody's Investors Service	**S&P Global Ratings**	**Fitch Ratings**
Corporate Credit Rating/Issuer Rating	Baa1	BBB	BBB+
Senior Secured Debt Rating*	A2	A-	A
*Ratings relate to AES Indiana's Senior Secured Bonds			

11

12 The ratings from Moody's and Fitch have a stable outlook while the ratings from S&P have
13 a positive outlook. The ratings are substantiated in the reports which are included as <u>AES
14 Indiana Attachments DJI-1.1 through DJI-3.1</u>.

15 **Q28. What is the difference between a Corporate Credit/Issuer Rating and a Senior
16 Secured Debt Rating?**

17 A28. A Corporate Credit/Issuer Rating is the rating agency's opinion on a company's relative
18 vulnerability to default on financial obligations. A Corporate Credit/Issuer rating is

1 typically unenhanced and reflects a company's corporate credit risk. A Senior Secured
2 Debt Rating takes a targeted view of a specific security's relative vulnerability to default,
3 considering any credit enhancement that may be applicable, including "security."

4 **Q29. Have the credit ratings of AES Indiana changed since the Company's last rate case**
5 **in Cause No. 45029 was filed?**

6 A29. Yes, in March 2018, S&P upgraded the credit rating by one notch from BBB- to BBB,
7 following the upgrade of AES Indiana's ultimate parent company, AES, to the investment
8 grade rating of BBB-. Additionally, following the issuance of the Order in Cause No.
9 45029, Fitch upgraded the Company's credit rating by two notches from BBB- to BBB+
10 in November 2018 referencing the supportive outcome in that case as the rationale for the
11 upgrade.

12 **4. SUMMARY AND RECOMMENDATIONS**

13 **Q30. Please summarize your testimony and recommendations.**

14 A30. As shown in AES Indiana Financial Exhibit AESI-CC, Schedule CC2, the Company's
15 proposed WACC is 7.22%. This is based on a proposed ROE of 10.60% as presented by
16 AES Indiana witness McKenzie and a cost of debt of 4.90% as of December 31, 2022.
17 AES Indiana's regulatory capital structure, as of the end of the test year, consisted of
18 49.52% long-term debt and 44.69% common equity, among other components more fully
19 described above and as depicted in AES Indiana Financial Exhibit AESI-CC, Schedule
20 CC2. The Company's WACC and capital structure underpin its financial integrity and are
21 key considerations given by the credit rating agencies, along with the regulatory
22 environment, in determining the Company's credit ratings. Maintaining investment grade
23 ratings is vital to both AES Indiana and its customers as it allows for the necessary

1 flexibility to determine when and how to access the capital markets in order to achieve
2 reasonable terms. A constructive outcome in this case that approves the Company's capital
3 structure and WACC as filed would ensure the continued financial integrity of AES
4 Indiana, allowing it to earn a reasonable rate of return, meet its financial obligations, and
5 provide safe and reliable service to its customers.

6 **Q31. Does this conclude your verified pre-filed direct testimony?**

7 A31. Yes.

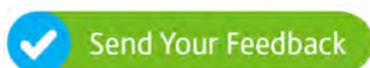
VERIFICATION

I, Dustin J. Illyes, Treasurer of AES US Services, LLC, affirm under penalties for perjury that the foregoing representations are true to the best of my knowledge, information, and belief.

Dustin J. Illyes
Dated: June 28, 2023

CREDIT OPINION
21 December 2022

Update



Indianapolis Power & Light Company

Update to credit analysis

Summary

Indianapolis Power & Light Company's (IPL; trademark: AES Indiana) credit profile reflects its regulated vertically integrated electric utility operations that is subject to the Indiana Utility Regulatory Commission's (IURC) oversight. Our view that the regulatory environment is overall credit supportive considers IPL's access to several riders and surcharges that allows it to recover costs in-between rate cases.

However, the utility has remained out of rate case proceedings since 2018 (October 2018 order) which exposes its cash flow to regulatory lag amid the current inflationary environment and high interest rates. This regulatory lag along with the impact of the costs associated with the extended forced outage at the Eagle Valley facility, has increased debt to bridge IPL's liquidity needs and fund its capital expenditures. This explains the deterioration of the group's financial ratios for the last twelve month (LTM) period ended September 2022. Specifically, IPL's LTM 3Q2022 ratio of CFO before changes in working capital (CFO pre-W/C) to debt dropped to 15.6% from nearly 20% at year-end 2021, while IPALCO generated a consolidated ratio of CFO pre-W/C to debt of 10.3% at the end of September 2022. This ratio is below the group's 12% downgrade threshold and tempers the credit quality of both IPL and IPALCO. We expect a slight improvement in the ratios during the 4Q2022 aided by certain cash recovery equity contributions of around $253 million. As such, we expect that IPALCO's ratio of CFO pre-W/C to debt will range between 11-12% at year-end 2022 which will limit the group's financial flexibility.

IPL's dividend distributions and tax payments are the only source of cash flow to service its parent company IPALCO's $880 million of holding company debt, which we expect to be around 29% of consolidated debt at year-end 2022. This is slightly down from 32% at year-end 2021. In the absence of material ringfencing provisions, these obligations limit both entities' financial flexibility and constrain the utility's credit quality, while also driving the two-notch differential between the credit profile of IPL and the credit profile of IPALCO.

Recent developments

On December 2, 2022, IPL filed its Integrated Resource Plan (2022 IRP) as required in Indiana every three years. The filing followed several public advisory meetings held during 2022 which should have helped to build stakeholder acceptance. In April 2022, IPL also issued an all-source request for competitive proposals to procure replacement capacity which is also under consideration as part of the 2022 IRP. Completion of the IRP process is expected during 2023.

RATINGS

Indianapolis Power & Light Company

Domicile	Indianapolis, Indiana, United States
Long Term Rating	Baa1
Type	LT Issuer Rating
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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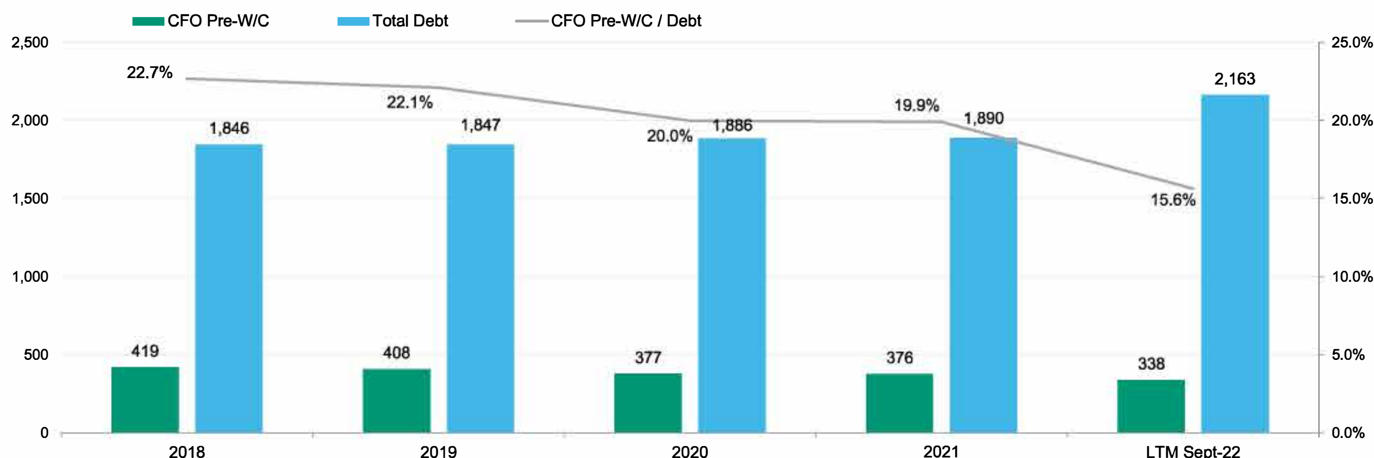
Exhibit 1
Historical CFO Pre-W/C, Total Debt and CFO Pre-W/C to Debt ($ in millions)



Source: Moody's Financial Metrics

Credit Strengths

» Fully regulated utility that operates in a credit supportive regulatory environment

» Cost recovery mechanisms in-between rate cases aids cash flows amid elevated capex program

Credit Challenges

» Regulatory lag following long stay-out period contributes to weak financial metrics

» Significant financial leverage of parent IPALCO constrains IPL's credit quality in the absence of ring-fencing provisions

Rating Outlook

IPL's stable outlook reflects our expectation that its cash flow will continue to benefit from the credit supportive regulatory environment in the state of Indiana, that IPALCO's holding company debt will remain at around 30% of consolidated debt, and that IPL and IPALCO's consolidated ratio of CFO pre-W/C to debt will rebound to above 18% and 12%, respectively, in 2023, due to improved cost recovery and equity infusions.

Factors that Could Lead to an Upgrade

An upgrade of IPL's rating is possible if there is a significant improvement in the regulatory environment or if we expect its CFO pre pre-W/C to debt ratio to increase consistently above 20%. A material reduction in the holding company debt or if IPALCO reports a ratio of consolidated CFO pre-W/C to debt of at least 15%, on a sustained basis, could also trigger positive momentum on IPL's ratings.

Factors that Could Lead to a Downgrade

IPL's rating could face downward pressure upon a deterioration in the credit supportiveness of the regulatory environment in Indiana or if IPL's CFO pre-W/C to debt ratio remains below 18% or if IPALCO's consolidated CFO pre-W/ C to debt to is below 12%, on a sustained basis.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

Key Indicators

Exhibit 2
Indianapolis Power & Light Company [1]

	Dec-18	Dec-19	Dec-20	Dec-21	LTM Sept-22
CFO Pre-W/C + Interest / Interest	7.2x	5.5x	5.2x	5.4x	4.9x
CFO Pre-W/C / Debt	22.7%	22.1%	20.0%	19.9%	15.6%
CFO Pre-W/C – Dividends / Debt	14.9%	13.4%	12.1%	11.6%	7.9%
Debt / Capitalization	52.2%	51.9%	52.0%	48.3%	52.0%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
Source: Moody's Financial Metrics

Corporate Profile

Indianapolis Power & Light Company is a regulated vertically integrated utility that provides retail electric service to around 517,000 retail customers in and around the city of Indianapolis (estimated population around 1 million).

IPL, is a member of the Midcontinent Independent System Operator, Inc (MISO). As of September 30, 2022, its winter net electric generation capacity aggregated 3,475 MW (summer: 3,330 MW). According to IPL's 2019 IRP, Petersburg coal-fired facility capacity will drop to around 1,052 MW (two units) following the planned retirement of Unit 2 (415 MW) during 2023 (Unit 1 was retired in May 2021). In addition, IPL's fleet consists of natural gas fired facilities, including the 671 MW Eagle Valley Generating Station. The utility still expects that the 195 MW Hardy Hills Solar project will come online in 2023. However, the Petersburg Solar project (250 MW solar plus 180 MWh energy storage) is expected to start operations in 2025 compared to previous completion date in 2024.

IPL's parent holding company is IPALCO Enterprises, Inc. The utility accounts for over 99% of IPALCO's consolidated revenues, cash flows and assets. The Canadian fund Caisse de Dépôt et Placement du Québec (CDPQ) became IPALCO's minority shareholder at the end of 2014. Its current direct and indirect ownership approximates 30% and consists of a 17.65% direct interest in IPALCO and a 12.5% indirect ownership in IPALCO via AES US Investments (which owns 82.35% of IPALCO). AES Corporation (AES, Baa3 stable), the majority shareholder, set up AES US Services, LLC in 2014 to provide services to all of its US subsidiaries, including IPALCO and IPL.

Detailed Credit Considerations

Credit supportive regulatory environment that allows for recovery mechanisms in-between rate case

IPL's credit quality considers legislative-backed surcharges and riders that adjust rates in-between rate cases, as well as the ability to earn a return on and of certain investments subject to IURC review proceedings. We also consider the IURC's track-record for completing rate cases within one year, which is relatively timely and predictable. SB560 also allows the utilities to implement temporary rates, including 50% of a proposed rate increase as part of a rate proceeding, if the IURC fails to act within 360 days (including a 60-day extension for good cause) after the filing date. This provision, if used in the future, would further enhance the timely recovery of costs.

The surcharge and riders include the semi-annual Environmental Compliance Cost Recovery Adjustment (ECCRA-tracker) related to environmental compliance investments for items such as the Mercury and Air Toxics Standards. Also, IPL annual rate adjustments reflect 80% of the revenue requirements related to investments to enhance its transmission, distribution and storage systems (including a return on and of the investments, operational and maintenance expenses and property taxes) through the Transmission, Distribution, and Storage System Improvement Charge (TDSIC). According to the TDSIC statute requirements, the utility filed a seven-year investment plan in 2020. For IPL, the IURC's authorized investments will aggregate $1.2 billion between 2020 and 2026. The remaining balance (4Q2022-2026) was nearly $760 million at the end of September 2022. This mechanism is important because IPL expects these investments will total around $529 million, or nearly 30% of its planned capex of around $1.8 billion, during the 2022-2024 period. However, annual increases are limited to no more than 2% of total retail revenues with annual adjustments typically implemented during the fourth quarter. The approved revenue requirement aggregates $34.2 million for the twelve-month period ending October 2023 (though October 2022: $12.8 million).

Additional adjustment mechanisms allow the utility to also recover changes in MISO costs as well as changes in net capacity sales (based on an annual benchmark of +/-$11.3 million) and in Off-system sales, reflecting changes in the wholesale margins (based on an

annual benchmark: +/-$16.3 million). Importantly, the utility is also allowed to update changes in fuel and purchased power costs to meet its retail load requirements through quarterly adjustments of its fuel adjustment clause (FAC). IPL filed its latest FAC proceeding in mid-December 2022 (last approved in November 2022) with the adjustment becoming effective in the March-May customer bills. This limits the exposure of the utility's cash flows to deferred balances to three months, an important credit consideration following the material spike in commodity costs during 2022.

During the nine month period ended 30 September 2022, IPL's reported fuel and power procurement costs increased by around $200 million to nearly $520 million (+74%) with about half of the increase ($109 million) recorded during the 3Q2022. We note that this step-up included a $27.8 million extraordinary charge recorded by the utility during the 3Q2022 in connection with the forced outage at the Eagle Valley CCGT that lasted between April 2021 and March 2022. The total incremental costs aggregated $48.3 million, including the costs related to the increased volume of purchased power. However, in October 2022, the utility agreed to forgo the recovery of $27.8 million (or 58% of the total) and to spread the recovery of the balance of $20.5 million over eight quarters starting in 2023 (instead of the typical recovery period in the next quarter). We acknowledge that this resulted from a multi-party settlement agreement, that is pending the IURC's approval, with the utility's intention of managing its relationship with stakeholders in Indiana. However, the unrecovered amount and the longer than typical recovery period of the balance, with no carrying charges, are two credit negatives from the utility's cash flow perspective.

Regulatory lag amid extended stay-out period is only partially mitigated by sale improvements

Despite the credit benefits of the aforementioned adjustments mechanisms, regulatory lag has negatively affected the utility's cash flow amid the current inflationary environment and high interest rates.

The gradual deterioration in IPL's return on equity (RoE) evidences the overall negative net impact of the regulatory lag that results from the utility's decision to stay out of rate cases since 2018 along with the deferred recovery of 20% of the TDSIC related investments. The RoE calculated per GAAP dropped to 7.5% for the LTM period ended September 2022 from 9.6% at year-end 2020 (2021: 8.5%). IPL's authorized regulatory parameters have also remained in place for the last several years despite increasing rates. These include an authorized RoE of 9.99% as well a relatively thin allowed regulatory equity layer of 37.33% and financial equity ratio of 45% (including deferred income taxes and excluding prepaid pension assets).

In Indiana, utilities have the option to file rate cases based on a future test year (SB560), historical test year or a hybrid mechanism. IPL chose to apply a hybrid mechanism in its 2018 rate case which allowed it to add the Eagle Valley plant investments to its rate base before its completion in 2018. The retirement of Petersburg's Unit 1 (May 2021) has reduced fixed costs with additional savings expected from the planned retirement of Petersburg's Unit 2 during 2023; however, during the first nine months of 2022, IPL reported a $30 million (+8%) increase in its O&M expenses that included higher vegetation management costs, offsetting the unit 1 retirement benefits and acting as a drag on cash flow.

IPL's volumetric rate design for residential and small C&I customers reduce IPL's cash flow visibility, since income is affected by swings in demand trends. However, the recovery in retail sales demand is helping to improve the utility's cash flow. For example, despite weather conditions that were overall less favorable during the third quarter of 2022 compared to the same period in 2021, IPL recorded an increase in retail sales that improved its retail revenues by $15.8 million during the nine month period ended September 2022. IPL's residential customers contributed to this positive development with an 1.4% step-up in their total power demand (on weather-adjusted basis: +1%) during the nine month period ended September 2022. This compares well with this customer class sales contraction of 1.5% recorded at year-end 2021 following the material increase (+3.4%) in 2020 in the aftermath of the pandemic. Between January and September 2022, the small C&I customers' power demand also increased by 2.1% which is in line with the increase by 2.3% recorded in 2021 (2020: -5.2%).

Sales to large C&I also continued to increase in 2022 but their non-volumetric rate design largely moots any positive impact on IPL's cash flow this year. As a point of reference, the power supplied to the large C&I customers represented around 46% of the total retail sales for the nine month period ended September 2022 but less than 40% of the total retail revenues. In contrast, during the nine month period ended September 2022, the residential and small C&I customers accounted for around 44% (2021: 44%) and 16% (2021: 15%), respectively, of IPL's total retail revenues. Their demanded power represented around 40% and 14%, respectively, of IPL's total retail sales during the same period. In contrast.

Ongoing IRP proceeding will drive carbon transition risk and future capital investments

The utility's capex aggregated $489 million for the LTM period ended September 2022, which is lower compared to management's planned investments of $871 million in 2022 disclosed earlier this year. Certain projects have been postponed to 2023 and 2024 largely due to the aforementioned supply chain challenges. However, management still estimates that IPL's total investments will aggregate around $1.8 billion during the 2022-2024 period.

In addition to the aforementioned TDSI capital outlays, management has earmarked total investments in generation and renewable energy related projects that will aggregate $835 million, excluding tax equity contributions, for the 2022-2024 period. These investments equal around 45% of its planned capex that will total $1.8 billion. In 2021, IPL entered into two agreements to acquire solar assets with a total capacity of 445 MW while one of the projects also includes a 180 MWh energy storage facility.

The utility disclosed that supply chain issues and solar tariff challenges that affected the sector, particularly solar developers, during 2022 have not materially affected the expected completion of the 195 MW Hardy Hills Solar project in 2023. This is important because IPL expects that 2023 will also be the first year it will face capacity shortfalls, following the planned retirement of Petersburg Unit 2 also in 2023. In contrast, management now expects that the Petersburg Solar project (250 MW solar plus 180 MWh energy storage) will come online in 2025 instead of in 2024. The IURC authorized IPL to invest, through a wholly owned subsidiary, in a joint venture ownership structure with a tax equity partner (so called, tax equity partnership). These structures will add some complexity to IPL's capital and organization structure. However, they also allow IPL to monetize the tax savings associated with accelerated MACRS depreciation and Investment Tax Credits, reducing the utility's revenue requirements and the impact of these investments on the customers' bills. The solar projects are designed to qualify for Investment Tax Credits ("ITC") ranging from 26% to 30%. The partnership would enable the effective use of these tax benefits.

The outcome of the 2022 IRP will dictate the utilities' exposure to carbon transition and its medium-term capital expenditures versus the procurement of capacity replacement from third parties. Every three years the utilities in Indiana are required to submit an IRP to the IURC that are premised on a 20-year portfolio of generation. The IRP (study period: 2023 through 2042) is a guide for future resource decisions which are subject to changes, particularly those beyond the five-year horizon, and regulatory approvals.

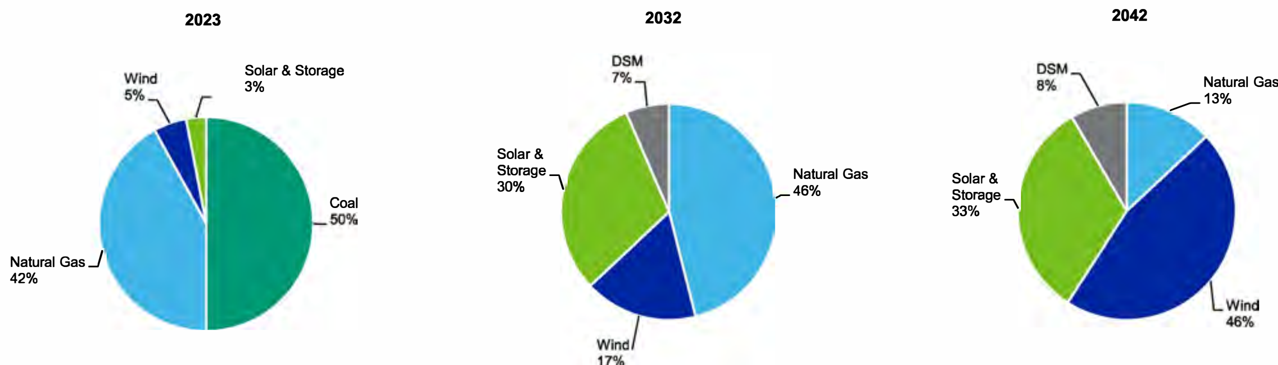
IPL's 2022 IRP includes its preferred resource portfolio as well as a short-term action plan. IPL uses a portfolio matrix scenario framework to analyze, from a least cost perspective for customers (that is, that results in the lowest revenue requirement), different strategies under four scenarios. The scenarios differ in the aggressiveness of the environmental goals which range between no environmental action to a decarbonized economy. The five predefined strategies include operating Petersburg's Unit 3 and 4 through the end of their remaining useful life in 2040, their early retirements and their conversion to natural gas in 2025. IPL's planning model also selected a portfolio of generation assets without any predefined strategy. The outcomes are also evaluated based on several criteria, such as affordability, sustainability, reliability as well as from a risk and opportunity and economic impacts perspective.

The utility is proposing to convert Petersburg Units 3 and 4 to 1 gigawatt of natural gas in 2025 which will provide a 69% reduction in CO2 emission by 2030 compared to 2018 levels. IPL's proposal is in-line with the February 2022 announcement of IPALCO's majority shareholder, AES Corp (The), that the group intends to exit all coal-fired generation globally by year-end 2025, subject to necessary approvals. AES' previous plan anticipated a reduction in coal contribution to below 10% by year-end 2025, including IPL's Petersburg's Unit 3 and 4. The aforementioned extended forced outage at the Eagle Valley CCGT facility in 2021 explain the material spike in the contribution of Petersburg's coal-fired generation to IPL's total output that represented 70% of the total. As a point of reference, Petersburg accounted for 48% of its total output in 2020 (2019: 58%). Historically, natural gas and fuel oil accounted for the remaining generation.

IPL's preferred portfolio also includes the proposal to further grow its renewable footprint by 1.3 Gigawatts, including wind, solar and batteries. Renewable resources will grow in their relative contribution to IPL's energy mix with demand side management also expected to aid IPL's decarbonization efforts over the next decades.

Exhibit 3

Energy mix in terms of installed capacity based on IPL's preferred resource portfolio proposed under the 2022 IRP



Source: Company's filings

Financial metric weakness should be temporary, but regulatory lag drives uncertainty

Exhibit 1 and 2 depict the gradual deterioration in IPL's financial metrics since 2018. These include IPL's ratio of CFO pre-W/C to debt that dropped to around 16% for the LTM period ended September 2022 while IPALCO's ratio of CFO pre-W/C to debt fell to 10.3%. Both ratios are below the financial metrics thresholds that we have cited could result in a downgrade, and limit both companies' financial flexibility.

Key drivers of this deterioration include the regulatory lag and the aforementioned $27 million in unrecovered costs associated with the extended outage at the Eagle Valley. Despite some postponed investments during 2022, the increased debt to bridge IPL's liquidity needs and fund its capital expenditures have also contributed to the weak leverage ratios. Based on IPL's total planned 2022-2024 investments, of around $1.8 billion, we estimate that the ratio of depreciation to capex will hover at around 2.0x, on an aggregated basis. As a point of reference, the ratio averaged around 1.0x during the 2017-2021 period.

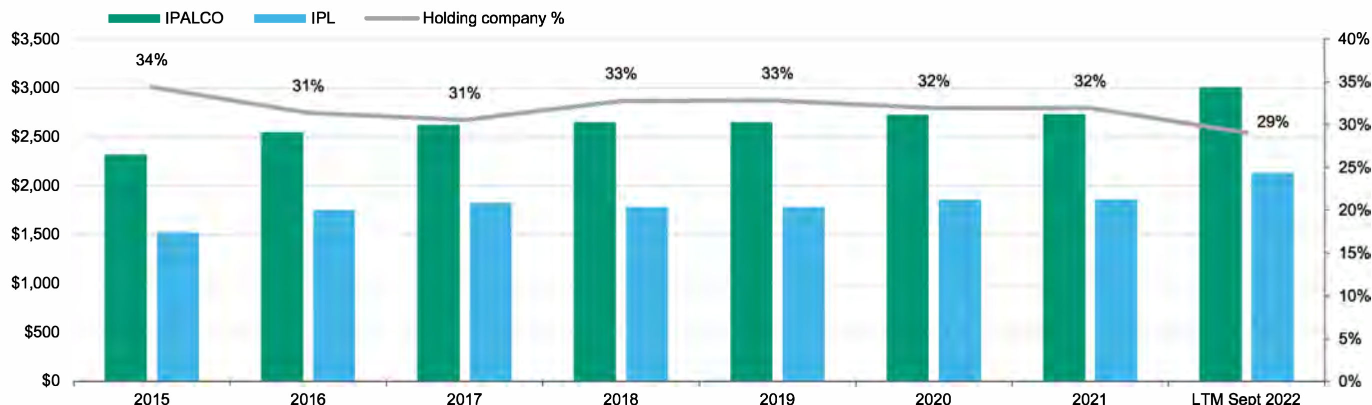
Despite the current weakness, we expect cash flow ratios for both companies to improve in 2023 due to equity infusions and improved cash flow. During the 4Q2022, AES and CDPQ's equity contribution of $253 million will help the utility to maintain its authorized equity layer while the new investments and the additional recovery of incremental fuel costs will also help its cash flow. At year-end 2022, we expect that IPL's ratio of CFO pre-W/C to debt will be still weak for the credit quality but will slightly improve such that they are closer to the downgrade threshold.

In 2023, the costs savings associated with the retirement of Petersburg Unit 2 and the commission of the solar facility should also help the utility's cash flow. However, the exposure of the utility's regulatory lag will depend on the uncertain development of inflation albeit it appears to be moderating.

Elevated parent company debt constrains IPL's credit quality and drive structural subordination

IPALCO's holding company debt currently consists of two series of senior unsecured notes due in September 2024 ($405 million) and May 2030 ($475 million). These obligations constrain the utility's credit quality, since IPL is the only source of cash to meet IPALCO's debt service and dividend obligations. The holding company debt also drives the two-notch differential between the credit profile of IPL and the credit profile of IPALCO, reflecting significant structural subordination. Going forward, we expect that IPL will be the only entity incurring new debt to fund the group's capital requirements. These assumptions drive our view that IPALCO's holding company debt will represent around 30% of the consolidated debt over the next two years.

Exhibit 4
IPALCO's holding company debt as a % of consolidated debt



Source: IPALCO's financial statements and Moody's calculations

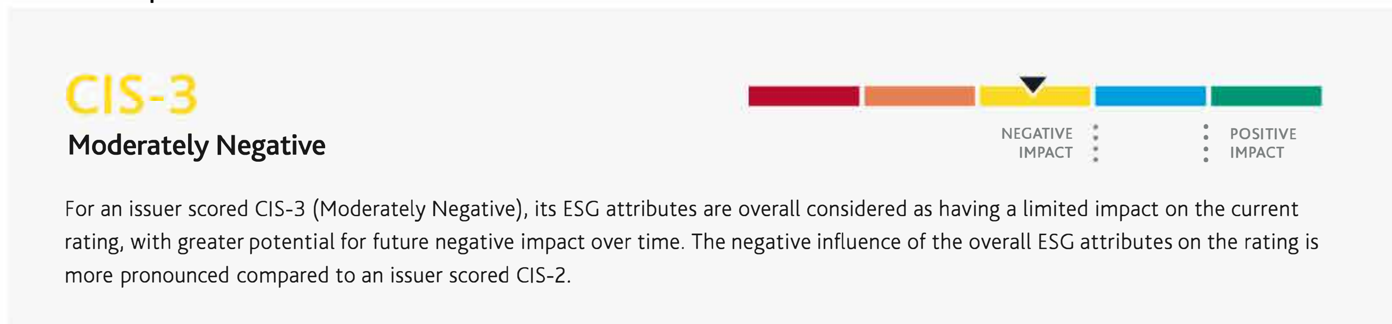
IPALCO, through IPL, is likely to further rank as one of AES' largest sources of cash flow. It's up-streamed cash flow includes payments under a tax sharing agreement subject to the current 21% corporate tax rate (previously: 35%) upon the implementation of the Tax Cuts and Jobs Act (TCJA) in December 2017. Both companies' dividend payout ratios have hovered around 97% during the 2019-2021 period (compared to industry average in the 60-70%) amid IPL's relatively thin authorized equity layer. This aggressive dividend policy constrains credit quality.

IPL's ability to dividend cash is somewhat limited under the amended Articles of Incorporation, the mortgage and deed of trust, as well as its credit facility (where there is a requirement to record total debt to total capitalization not greater than 67%). The Articles of Incorporation, amended after CDPQ became IPALCO's minority shareholder, also limit IPALCO's ability to make intercompany loans and dividend distributions to AES. These are subject to the company recording debt to adjusted capitalization of no greater than 67% and interest coverage below 2.5x, respectively. However, all of these restrictions are relatively lenient. This is evidenced by IPALCO's track record of complying with these covenants despite its extremely thin capitalization.

ESG considerations

Indianapolis Power & Light Company's ESG Credit Impact Score is Moderately Negative CIS-3

Exhibit 5
ESG Credit Impact Score



Source: Moody's Investors Service

Indianapolis Power & Light Company's (IPL; trademark: AES Indiana) ESG Credit Impact Score is moderately negative (**CIS-3**), where its ESG attributes are overall considered as having a limited impact on the current rating, with greater potential for future negative impact over time. IPL's ESG **CIS-3** reflects high environmental risk, moderate social risk, along with neutral to low governance risks.

Exhibit 6
ESG Issuer Profile Scores

Source: Moody's Investors Service

Environmental

IPL's high environmental risk (**E-4** issuer profile score), reflects high carbon transition risk due to its reliance on fossil fuels, particularly coal-fired generation. This exposure compares to IPL's growing solar rate base with two projects expected to start operations in 2023 and 2024, respectively, one of them includes a 180 MWh energy storage facility. Its coal-fired facilities also add risks of waste management and pollution. Additionally, IPL's exposure to physical climate risk is moderate, mostly in the form of extreme weather patterns.

Social

Exposure to social risks is moderate (**S-3** issuer profile score) reflecting the utility sector's fundamental risk that demographics and societal trends could trigger public affordability concerns that could lead to adverse regulatory political intervention. The company also has neutral to low risk for human capital, customer relationships and responsible production.

Governance

Governance is broadly in line with its parent company, AES Corporation (The), as well as other utilities and does not pose a particular risk (**G-2** issuer profile). This is supported by neutral to low scores on financial strategy and risk management as the utility operates subject to the regulatory authorized capital structure, management credibility and track record, organizational structure, compliance, reporting as well as board structure, policies and procedures.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Liquidity Analysis

IPL maintains an adequate liquidity profile. At the end of September 2022, IPL had $115 million available under its 5-year $250 million revolving credit facility. The facility, scheduled to expire in June 2024, includes a $150 million accordion feature (subject to lenders' approval). Its single financial covenant requires a maximum total debt to total capitalization of 67%. We estimate the ratio approximated 55% at the end of September 2022 (2021: 52%), and assume that it will remain well in compliance with this covenant. Failure to comply could cause an event of default that would also limit IPL's ability to distribute dividends.

IPALCO does not maintain its own credit facility and the organization relies solely on IPL's revolving credit facilities for external financing, a credit and liquidity weakness.

In June 2022, IPL entered into a 364-day $200 million term loan that was scheduled to expire in June 2023. However, it fully repaid it with the net proceeds raised in connection with 10-year $350 million first mortgage bond issued in November 2022. IPL used the balance of the proceeds to also fully repay the outstanding borrowings under the revolving facility. We anticipate that the facility will be almost fully available at year-end 2022. IPL's next debt maturity consists of $40 million of FMB due in December 2024 followed by another $40 million FMB due in August 2025.

As mentioned earlier, IPL delayed some of the investments initially earmarked in 2022 to 2023 and 2024. Therefore, the capex in 2023 will be higher than the planned investments disclosed earlier this year that aggregated $576 million. We expect that IPL will fund its capital requirements including its investments and dividend distributions (as a point of reference LTM September 2022: $168 million) with internally generated operating cash flow (LTM September 2022: $220 million), borrowings under IPL's credit facility and long-term debt issuances as well as shareholders' equity contributions. AES and CDPQ's equity contribution of $253 million to IPALCO

in December 2022 comes on the heels of the $275 million contribution made in the 4Q2021. The utility also plans to redeem its outstanding $60 million preferred stock before year-end 2022.

IPL is IPALCO's main source of cash flow used to meet its financial obligations including distributions to AES (dividends and up-streamed cash flow under a tax sharing agreement) and interest payments on its holding company debt of around $30 million p.a.

Rating Methodology and Scorecard Factor

Moody's evaluates the financial performance of IPALCO and IPL relative to the standard business risk grid under the Regulated Electric and Gas Utilities Methodology published in June 2017. As depicted in the grid below, IPL's scorecard-indicated outcome based on historical credit metrics is Baa1, the same as its actual assigned rating, which remains tempered by IPALCO's material holding company debt. The scorecard-indicated outcome based on projected credit metrics is A3, one notch above its actual assigned rating.

Exhibit 7
Rating FactorsIndianapolis Power & Light Company

Regulated Electric and Gas Utilities Industry [1][2]	Current LTM 9/30/2022		Moody's 12-18 Month Forward View As of Date Published [3]	
Factor 1 : Regulatory Framework (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A	A	A
b) Consistency and Predictability of Regulation	A	A	A	A
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	A	A	A	A
b) Sufficiency of Rates and Returns	A	A	A	A
Factor 3 : Diversification (10%)				
a) Market Position	Baa	Baa	Baa	Baa
b) Generation and Fuel Diversity	Baa	Baa	Baa	Baa
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	5.2x	A	4x - 5.5x	A
b) CFO pre-WC / Debt (3 Year Avg)	18.2%	Baa	17% - 19%	Baa
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	10.5%	Baa	9% - 11%	Baa
d) Debt / Capitalization (3 Year Avg)	52.3%	Baa	50% - 55%	Baa
Rating:				
Scorecard-Indicated Outcome Before Notching Adjustment		Baa1		A3
HoldCo Structural Subordination Notching			0	0
a) Scorecard-Indicated Outcome		Baa1		A3
b) Actual Rating Assigned		Baa1		Baa1

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2] As of 9/30/2022(L)
[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.
[4] Standard grid for financial risk.
Source: Moody's Financial Metrics

Appendix

Exhibit 8

Cash Flow and Credit Metrics [1]

CF Metrics	Dec-18	Dec-19	Dec-20	Dec-21	LTM Sept-22
As Adjusted					
FFO	366	410	390	389	356
+/- Other	53	-2	-13	-13	-18
CFO Pre-WC	419	408	377	376	338
+/- ΔWC	7	11	-45	-130	-119
CFO	426	419	332	246	219
- Div	144	161	149	157	166
- Capex	224	214	236	318	489
FCF	58	45	-53	-229	-436
(CFO Pre-W/C) / Debt	22.7%	22.1%	20.0%	19.9%	15.6%
(CFO Pre-W/C - Dividends) / Debt	14.9%	13.4%	12.1%	11.6%	7.9%
FFO / Debt	19.8%	22.2%	20.7%	20.6%	16.5%
RCF / Debt	12.0%	13.5%	12.8%	12.2%	8.8%
Revenue	1,451	1,482	1,353	1,426	1,660
Interest Expense	68	91	89	86	86
Net Income	115	165	139	135	115
Total Assets	4,852	4,918	4,952	5,223	5,496
Total Liabilities	3,416	3,487	3,498	3,502	3,802
Total Equity	1,436	1,431	1,455	1,721	1,694

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Periods are Financial Year-End unless indicated. LTM=Last Twelve Months
Source: Moody's Financial Metrics

Exhibit 9

Peer Comparison Table [1]

	Indianapolis Power & Light Company Baa1 (Stable)			Duquesne Light Company A3 (Stable)			Cleco Power LLC A3 (Stable)			Puget Sound Energy, Inc. Baa1 (Stable)			Indiana Michigan Power Company A3 (Positive)		
(In US millions)	FYE Dec-20	FYE Dec-21	LTM Sept-22	FYE Dec-20	FYE Dec-21	LTM Mar-22	FYE Dec-20	FYE Dec-21	LTM Sept-22	FYE Dec-20	FYE Dec-21	LTM Jun-22	FYE Dec-20	FYE Dec-21	LTM Sept-22
Revenue	1,353	1,426	1,660	964	961	1,055	1,032	1,242	1,539	3,326	3,806	3,912	2,242	2,327	2,514
CFO Pre-W/C	377	376	338	351	354	389	182	135	288	898	900	867	920	803	914
Total Debt	1,886	1,890	2,163	1,402	1,464	1,454	1,791	2,023	2,195	4,957	5,268	5,175	3,287	3,393	3,447
CFO Pre-W/C + Interest / Interest	5.2x	5.4x	4.9x	6.6x	6.4x	7.3x	3.3x	2.7x	4.2x	4.5x	4.5x	4.4x	8.7x	7.7x	8.3x
CFO Pre-W/C / Debt	20.0%	19.9%	15.6%	25.0%	24.2%	26.8%	10.2%	6.7%	13.1%	18.1%	17.1%	16.7%	28.0%	23.7%	26.5%
CFO Pre-W/C – Dividends / Debt	12.1%	11.6%	7.9%	21.4%	18.7%	22.6%	10.2%	6.7%	8.3%	15.1%	12.7%	13.9%	25.4%	16.3%	22.3%
Debt / Capitalization	52.0%	48.3%	52.0%	41.6%	41.0%	38.9%	42.3%	43.2%	44.5%	49.0%	49.3%	47.5%	46.3%	46.6%	45.6%

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Periods are Financial Year-End unless indicated. LTM=Last Twelve Months
Source: Moody's Financial Metrics

Ratings

Exhibit 10

Category	Moody's Rating
INDIANAPOLIS POWER & LIGHT COMPANY	
Outlook	Stable
Issuer Rating	Baa1
First Mortgage Bonds	A2
Senior Secured	A2
Pref. Stock	Baa3
ULT PARENT: AES CORPORATION, (THE)	
Outlook	Stable
Senior Unsecured	Baa3
Pref. Stock	Ba2
PARENT: IPALCO ENTERPRISES, INC.	
Outlook	Stable
Senior Secured	Baa3

Source: Moody's Investors Service

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REPORT NUMBER 1331706

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CREDIT OPINION
21 December 2022

Update

RATINGS

IPALCO Enterprises, Inc.

Domicile	Indianapolis, Indiana, United States
Long Term Rating	Baa3
Type	Senior Secured - Dom Curr
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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IPALCO Enterprises, Inc.

Update to credit analysis

Summary

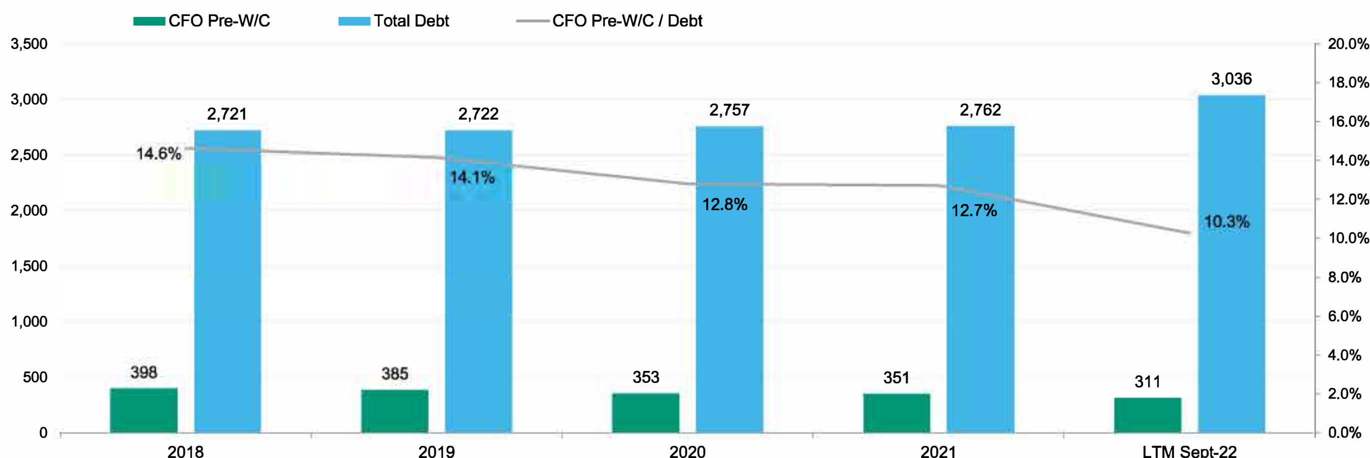
IPALCO Enterprise Inc's (IPALCO) credit profile reflects the structural subordination of its debt vis-a-vis the debt outstanding at its regulated vertically integrated subsidiary, Indianapolis Power & Light Company (IPL; trademark: AES Indiana). In the absence of material ring-fencing provisions, the utility's distributions and tax payments are the only source of cash flow to service the $880 million of holding company debt. We expect this debt to be around 29% of the total consolidated debt at year-end 2022. This is slightly down from 32% at year-end 2021. In the absence of material ringfencing provisions, these obligations limit both entities' financial flexibility and constrain the utility's credit quality, while also driving the two-notch differential between the credit profile of IPL and the credit profile of IPALCO.

IPL's cash flows benefit from access to several riders and surcharges that reduce the exposure of the utility's cash flows to regulatory lag in-between rate cases. These mechanisms drive our view of the supportiveness of the regulatory environment in Indiana. However, the utility has remained out of rate case proceedings since 2018 (October 2018 order) which exposes its cash flow to regulatory lag amid the current inflationary environment and high interest rates. This regulatory lag along with the impact of the costs associated with the extended forced outage at the Eagle Valley facility, has increased debt to bridge IPL's liquidity needs and fund its capital expenditures. This explains the deterioration of IPALCO's financial ratios for the last twelve month (LTM) period ended September 2022. Specifically, IPALCO's LTM 3Q2022 ratio of CFO before changes in working capital (CFO pre-W/C) to debt dropped to 10.3% from nearly 13% at year-end 2021 at the end of September 2022. This ratio is below the 12% downgrade threshold and tempers the credit quality of both IPALCO and IPL. We expect a slight improvement in the ratios during 4Q2022, aided by certain cash recovery equity contributions of around $253 million. As such, we expect that IPALCO's ratio of CFO pre-W/C to debt will range between 11-12% at year-end 2022 which will limit the group's financial flexibility.

Recent developments

On December 2, 2022, IPL filed its Integrated Resource Plan (2022 IRP) as required in Indiana every three years. The filing followed several public advisory meetings held during 2022 which should have helped to build stakeholder acceptance. In April 2022, IPL also issued an all-source request for competitive proposals to procure replacement capacity which is also under consideration as part of the 2022 IRP. Completion of the IRP process is expected during 2023.

Exhibit 1
Historical CFO Pre-WC, Total Debt and CFO Pre-WC to Debt ($ MM)



Source: Moody's Financial Metrics

Credit Strengths

» Parent company of IPL, whose fully regulated operations enhance its dividend visibility

» IPL operates in a credit supportive regulatory environment that allows for several cost recovery mechanisms

Credit Challenges

» Significant financial leverage at the holding company drives structural subordination

» Regulatory lag following long stay-out period contributes to weak financial metrics

Rating Outlook

IPALCO's stable outlook reflects our expectation that IPL's cash flows will continue to benefit from a credit supportive regulatory environment in the state of Indiana, that IPALCO's holding company debt will remain relatively constant and represent around 30% of consolidated debt. The stable outlook also assumes that IPALCO's ratio of CFO pre-W/C to debt will rebound to above 12% in 2023, due to improved cost recovery and equity infusions.

Factors that Could Lead to an Upgrade

IPALCO's rating could experience positive momentum if IPL's ratings are upgraded, if holding company debt is significantly reduced, or if IPALCO is able to record consolidated CFO pre-W/C to debt of at least 15%, on a sustained basis.

Factors that Could Lead to a Downgrade

IPALCO's rating could face downward pressure if IPL is downgraded or if IPALCO's consolidated CFO pre-W/C to debt remains below 12%, on a sustained basis.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

Key Indicators

Exhibit 2
IPALCO Enterprises, Inc. [1]

	Dec-18	Dec-19	Dec-20	Dec-21	LTM Sept-22
CFO Pre-W/C + Interest / Interest	5.0x	4.1x	3.7x	3.8x	3.4x
CFO Pre-W/C / Debt	14.6%	14.1%	12.8%	12.7%	10.3%
CFO Pre-W/C – Dividends / Debt	9.8%	9.1%	8.8%	7.9%	5.7%
Debt / Capitalization	76.7%	76.8%	76.9%	71.2%	72.6%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
Source: Moody's Financial Metrics

Corporate Profile

IPALCO Enterprises, Inc (IPALCO) is the parent holding company of its wholly-owned subsidiary Indianapolis Power & Light Company (IPL, Baa1 Issuer Rating stable), a regulated vertically integrated electric utility that provides service to nearly 517,000 retail customers in and around the city of Indianapolis (estimated population around 1 million). IPL is a member of the Midcontinent Independent System Operator, Inc (MISO). As of September 30, 2022, its winter net electric generation capacity aggregated 3,475 MW (summer: 3,330 MW). According to IPL's 2019 IRP, Petersburg coal-fired facility capacity will drop to around 1,052 MW (two units) following the planned retirement of Unit 2 (415 MW) during 2023 (Unit 1 was retired in May 2021). In addition, IPL's fleet consists of natural gas fired facilities, including the 671 MW Eagle Valley Generating Station. The utility still expects that the 195 MW Hardy Hills Solar project will come online in 2023. However, the Petersburg Solar project (250 MW solar plus 180 MWh energy storage) is expected to start operations in 2025 compared to previous completion date in 2024.

The utility accounts for over 99% of IPALCO's consolidated revenue, cash flow and assets.

Since 2014, the Canadian fund Caisse de Dépôt et Placement du Québec (CDPQ, unrated) has been IPALCO's minority shareholder. Its current direct and indirect ownership approximates 30% and consists of a 17.65% direct interest in IPALCO and a 12.5% indirect ownership in IPALCO via AES US Investments (which owns 82.35% of IPALCO). AES Corporation (AES, Baa3 stable), the majority shareholder, set up AES US Services, LLC in 2014 to provide services to all of its US subsidiaries, including IPALCO and IPL.

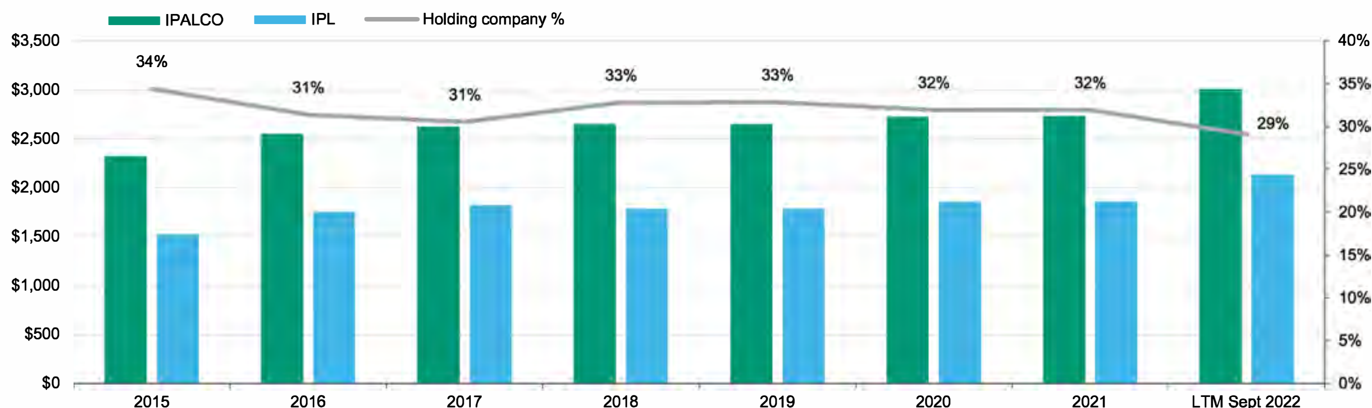
Detailed Credit Considerations

Elevated parent company debt drives structural subordination

IPALCO's holding company debt currently consists of two series of senior unsecured notes due in September 2024 ($405 million) and May 2030 ($475 million). This holding company debt drives the two-notch differential between the credit profile of IPL and the credit profile of IPALCO, reflecting significant structural subordination. These obligations also constrain the utility's credit quality, since IPL is the only source of cash to meet IPALCO's debt service and dividend obligations.

Going forward, we expect that IPL will be the only entity incurring new debt to fund the group's capital requirements. These assumptions drive our view that IPALCO's holding company debt will represent around 30% of the consolidated debt over the next two years. This assumption

Exhibit 3
IPALCO's holding company debt as a % of consolidated debt
($ Millions)



Source: IPALCO's financial statements and Moody's calculations

IPALCO, through IPL, is likely to further rank as one of AES' largest sources of cash flow. It's up-streamed cash flow includes payments under a tax sharing agreement subject to the current 21% corporate tax rate (previously: 35%) upon the implementation of the Tax Cuts and Jobs Act (TCJA) in December 2017. Both companies' dividend payout ratios have hovered around 97% during the 2019-2021 period (compared to industry average in the 60-70%) amid IPL's relatively thin authorized equity layer. This aggressive dividend policy constrains credit quality.

IPL's ability to dividend cash is somewhat limited under the amended Articles of Incorporation, the mortgage and deed of trust, as well as its credit facility (where there is a requirement to record total debt to total capitalization not greater than 67%). The Articles of Incorporation, amended after CDPQ became IPALCO's minority shareholder, also limit IPALCO's ability to make intercompany loans and dividend distributions to AES. These are subject to the company recording debt to adjusted capitalization of no greater than 67% and interest coverage below 2.5x, respectively. However, all of these restrictions are relatively lenient. This is evidenced by IPALCO's track record of complying with these covenants despite its extremely thin capitalization.

Credit supportive regulatory environment that allows for recovery mechanisms in-between rate case

Our view that the regulatory environment in Indiana is supportive of the group's credit quality considers legislative-backed surcharges and riders that adjust rates in-between rate cases, as well as the ability to earn a return on and of certain investments subject to IURC review proceedings. We also consider the IURC's track-record for completing rate cases within one year, which is relatively timely and predictable.

SB560 also allows the utilities to implement temporary rates, including 50% of a proposed rate increase as part of a rate proceeding, if the IURC fails to act within 360 days (including a 60-day extension for good cause) after the filing date. This provision, if used in the future, would further enhance the timely recovery of costs.

As explained in IPL's credit opinion, the surcharge and riders include the semi-annual Environmental Compliance Cost Recovery Adjustment (ECCRA-tracker) related to environmental compliance investments for items such as the Mercury and Air Toxics Standards. Also, IPL annual rate adjustments reflect 80% of the revenue requirements related to investments to enhance its transmission, distribution and storage systems (including a return on and of the investments, operational and maintenance expenses and property taxes) through the Transmission, Distribution, and Storage System Improvement Charge (TDSIC). According to the TDSIC statute requirements, the utility filed a seven-year investment plan in 2020. For IPL, the IURC's authorized investments will aggregate $1.2 billion between 2020 and 2026. The remaining balance (4Q2022-2026) was nearly $760 million at the end of September 2022. This mechanism is important because IPL expects these investments will total around $529 million, or nearly 30% of its planned capex of around $1.8 billion, during the 2022-2024 period. However, annual increases are limited to no more than 2% of total retail revenues with annual adjustments typically implemented during the fourth quarter. The approved revenue requirement aggregates $34.2 million for the twelve-month period ending October 2023 (though October 2022: $12.8 million).

Additional adjustment mechanisms allow the utility to also recover changes in MISO costs as well as changes in net capacity sales (based on an annual benchmark of +/-$11.3 million) and in Off-system sales, reflecting changes in the wholesale margins (based on an annual benchmark: +/-$16.3 million). Importantly, the utility is also allowed to update changes in fuel and purchased power costs to meet its retail load requirements through quarterly adjustments of its fuel adjustment clause (FAC). IPL filed its last FAC proceeding in mid-December 2022 (last approved in November 2022) with the adjustment becoming effective in the March-May customer bills. This limits the exposure of the utility's cash flows to deferred balances to three months, an important credit consideration following the material spike in commodity costs during 2022.

During the nine month period ended 30 September 2022, IPL's reported fuel and power procurement costs increased by around $200 million to nearly $520 million (+74%) with about half of the increase ($109 million) recorded during the 3Q2022. We note that this step-up included a $27.8 million extraordinary charge recorded by the utility during the 3Q2022 in connection with the forced outage at the Eagle Valley CCGT that lasted between April 2021 and March 2022. The total incremental costs aggregated $48.3 million, including the costs related to the increased volume of purchased power. However, in October 2022, the utility agreed to forgo the recovery of $27.8 million (or 58% of the total) and to spread the recovery of the balance of $20.5 million over eight quarters starting in 2023 (instead of the typical recovery period in the next quarter). We acknowledge that this resulted from a multi-party settlement agreement, that is pending the IURC's approval, with the utility's intention of managing its relationship with stakeholders in Indiana. However, the unrecovered amount and the longer than typical recovery period of the balance, with no carrying charges, are two credit negatives from the utility's cash flow perspective.

Regulatory lag amid extended stay-out period is only partially mitigated by sale improvements

Despite the credit benefits of the aforementioned adjustments mechanisms, regulatory lag has negatively affected the group's cash flow amid the current inflationary environment and high interest rates.

The gradual deterioration in IPL's return on equity (RoE) evidences the overall negative net impact of the regulatory lag that results from the utility's decision to stay out of rate cases since 2018 along with the deferred recovery of 20% of the TDSIC related investments. The RoE calculated per GAAP dropped to 7.5% for the LTM period ended September 2022 from 9.6% at year-end 2020 (2021: 8.5%). IPL's authorized regulatory parameters have also remained in place for the last several years despite increasing rates. These include an authorized RoE of 9.99% as well a relatively thin allowed regulatory equity layer of 37.33% and financial equity ratio of 45% (including deferred income taxes and excluding prepaid pension assets).

In Indiana, utilities have the option to file rate cases based on a future test year (SB560), historical test year or a hybrid mechanism. IPL chose to apply a hybrid mechanism in its 2018 rate case which allowed it to add the Eagle Valley plant investments to its rate base before its completion in 2018. The retirement of Petersburg's Unit 1 (May 2021) has reduced fixed costs with additional savings expected from the planned retirement of Petersburg's Unit 2 during 2023; however, during the first nine months of 2022, IPL reported a $30 million (+8%) increase in its O&M expenses that included higher vegetation management costs, offsetting the unit 1 retirement benefits and acting as a drag on cash flow.

IPL's volumetric rate design for residential and small C&I customers reduce IPL's cash flow visibility, since income is affected by swings in demand trends. However, the recovery in retail sales demand is helping to improve the utility's cash flow. For example, despite weather conditions that were overall less favorable during the third quarter of 2022 compared to the same period in 2021, IPL recorded an increase in retail sales that improved its retail revenues by $15.8 million during the nine month period ended September 2022. IPL's residential customers contributed to this positive development with an 1.4% step-up in their total power demand (on weather-adjusted basis: +1%) during the nine month period ended September 2022. This compares well with this customer class sales contraction of 1.5% recorded at year-end 2021 following the material increase (+3.4%) in 2020 in the aftermath of the pandemic. Between January and September 2022, the small C&I customers' power demand also increased by 2.1% which is in line with the increase by 2.3% recorded in 2021 (2020: -5.2%).

Sales to large C&I also continued to increase in 2022 but their non-volumetric rate design largely moots any positive impact on IPL's cash flow this year. As a point of reference, the power supplied to the large C&I customers represented around 46% of the total retail sales for the nine month period ended September 2022 but less than 40% of the total retail revenues. In contrast, during the nine month period ended September 2022, the residential and small C&I customers accounted for around 44% (2021: 44%) and 16%

(2021: 15%), respectively, of IPL's total retail revenues. Their demanded power represented around 40% and 14%, respectively, of IPL's total retail sales during the same period.

Ongoing IRP proceeding will drive carbon transition risk and future capital investments

The utility's capex aggregated $489 million for the LTM period ended September 2022, which is lower compared to management's planned investments of $871 million in 2022 disclosed earlier this year. Certain projects have been postponed to 2023 and 2024 largely due to the aforementioned supply chain challenges. However, management still estimates that IPL's total investments will aggregate around $1.8 billion during the 2022-2024 period.

In addition to the aforementioned TDSIC capital outlays, management has earmarked total investments in generation and renewable energy related projects that will aggregate $835 million, excluding tax equity contributions, for the 2022-2024 period. These investments equal around 45% of its planned capex that will total $1.8 billion. In 2021, IPL entered into two agreements to acquire solar assets with a total capacity of 445 MW while one of the projects also includes a 180 MWh energy storage facility.

The utility disclosed that supply chain issues and solar tariff challenges that affected the sector, particularly solar developers, during 2022 have not materially affected the expected completion of the 195 MW Hardy Hills Solar project in 2023. This is important because IPL expects that 2023 will also be the first year it will face capacity shortfalls, following the planned retirement of Petersburg Unit 2 also in 2023. In contrast, management now expects that the Petersburg Solar project (250 MW solar plus 180 MWh energy storage) will come online in 2025 instead of in 2024. The IURC authorized IPL to invest, through a wholly owned subsidiary, in a joint venture ownership structure with a tax equity partner (so called, tax equity partnership). These structures will add some complexity to IPL's capital and organization structure. However, they also allow IPL to monetize the tax savings associated with accelerated MACRS depreciation and Investment Tax Credits, reducing the utility's revenue requirements and the impact of these investments on the customers' bills. The solar projects are designed to qualify for Investment Tax Credits ("ITC") ranging from 26% to 30%. The partnership would enable the effective use of these tax benefits.

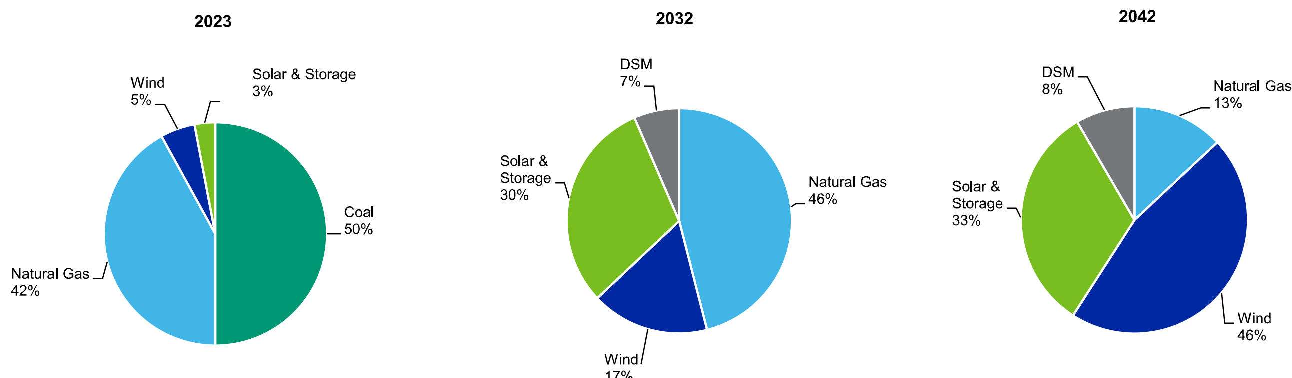
The outcome of the 2022 IRP will dictate the utilities' exposure to carbon transition and its medium-term capital expenditures versus the procurement of capacity replacement from third parties. Every three years the utilities in Indiana are required to submit an IRP to the IURC that are premised on a 20-year portfolio of generation. The IRP (study period: 2023 through 2042) is a guide for future resource decisions which are subject to changes, particularly those beyond the five-year horizon, and regulatory approvals.

IPL's 2022 IRP includes its preferred resource portfolio as well as a short-term action plan. IPL uses a portfolio matrix scenario framework to analyze, from a least cost perspective for customers (that is, that results in the lowest revenue requirement), different strategies under four scenarios. The scenarios differ in the aggressiveness of the environmental goals which range between no environmental action to a decarbonized economy. The five predefined strategies include operating Petersburg's Unit 3 and 4 through the end of their remaining useful life in 2040, their early retirements and their conversion to natural gas in 2025. IPL's planning model also selected a portfolio of generation assets without any predefined strategy. The outcomes are also evaluated based on several criteria, such as affordability, sustainability, reliability as well as from a risk and opportunity and economic impacts perspective.

The utility is proposing to convert Petersburg Units 3 and 4 to 1 gigawatt of natural gas in 2025 which will provide a 69% reduction in CO2 emission by 2030 compared to 2018 levels. IPL's proposal is in-line with the February 2022 announcement of IPALCO's majority shareholder, AES Corp (The), that the group intends to exit all coal-fired generation globally by year-end 2025, subject to necessary approvals. AES' previous plan anticipated a reduction in coal contribution to below 10% by year-end 2025, including IPL's Petersburg's Unit 3 and 4. The aforementioned extended forced outage at the Eagle Valley CCGT facility in 2021 explain the material spike in the contribution of Petersburg's coal-fired generation to IPL's total output that represented 70% of the total. As a point of reference Petersburg accounted for 48% of its total output in 2020 (2019: 58%). Historically, natural gas and fuel oil accounted for the remaining generation. IPL's preferred portfolio also includes the proposal to further grow its renewable footprint by 1.3 Gigawatts, including wind, solar and batteries. Renewable resources will grow in their relative contribution to IPL's energy mix with demand side management also expected to aid IPL's decarbonization efforts over the next decades.

Exhibit 4

Energy mix in terms of installed capacity based on IPL's preferred resource portfolio proposed under the 2022 IRP



Source: Company's filings

Financial metric weakness should be temporary, but regulatory lag drives uncertainty

Exhibit 1 and 2 depict the gradual deterioration in IPL's financial metrics since 2018. These include IPALCO's ratio of CFO pre-W/C to debt that dropped to around 10.3% for the LTM period ended September 2022. This ratio is below the financial metrics thresholds that we have cited could result in a downgrade, and limit the financial flexibility of IPALCO and IPL.

Key drivers of this deterioration include the regulatory lag and the aforementioned $27 million in unrecovered costs associated with the extended outage at the Eagle Valley. Despite some postponed investments during 2022, the increased debt to bridge IPL's liquidity needs and fund its capital expenditures have also contributed to the weak leverage ratios. Based on IPL's total planned 2022-2024 investments, of around $1.8 billion, we estimate that the ratio of depreciation to capex will hover at around 2.0x, on an aggregated basis. As a point of reference, the ratio averaged around 1.0x during the 2017-2021 period.

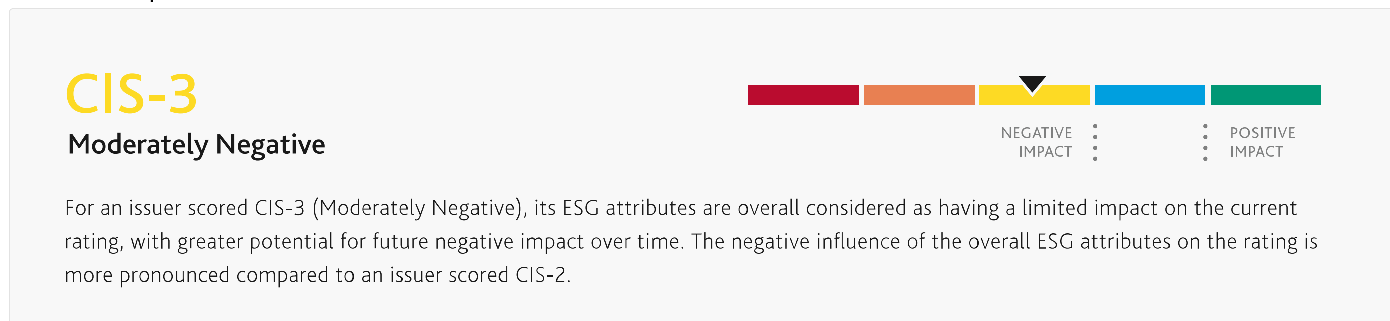
Despite the current weakness, we expect IPALCO's cash flow ratios to improve in 2023 due to equity infusions and improved cash flow. During the 4Q2022, AES and CDPQ's equity contribution of $253 million will help the utility to maintain its authorized equity layer while the new investments and the additional recovery of incremental fuel costs will also help its cash flow. At year-end 2022, we expect that IPALCO's ratio of CFO pre-W/C to debt will be still weak for the credit quality but will slightly improve such that it is closer to the downgrade threshold.

In 2023, the costs savings associated with the retirement of Petersburg Unit 2 and the commission of the solar facility should also help the utility's cash flow. However, the exposure of the utility's regulatory lag will depend on the uncertain development of inflation albeit it appears to be moderating. IPALCO's credit quality is predicated on the expectation that the consolidated ratio of CFO pre-W/C to debt will rebound to above 12% in 2023.

ESG considerations

IPALCO Enterprises, Inc.'s ESG Credit Impact Score is Moderately Negative CIS-3

Exhibit 5
ESG Credit Impact Score



Source: Moody's Investors Service

IPALCO's ESG Credit Impact Score is moderately negative (**CIS-3**), where its ESG attributes are overall considered as having a limited impact on the current rating, with greater potential for future negative impact over time. IPL's ESG **CIS-3** reflects high environmental risk, moderate social risk, along with neutral to low governance risks.

Exhibit 6
ESG Issuer Profile Scores

Source: Moody's Investors Service

Environmental

IPALCO's high environmental risk (**E-4** issuer profile score), reflects its high carbon transition risk due to its utility subsidiary's, Indianapolis Power & Light Company (IPL), high reliance on fossil fuels, particularly coal-fired generation. This exposure is balanced against IPL's growing solar rate base with two projects expected to start operations in 2023 and 2024, respectively, one of them includes a 180 MWh energy storage facility. Its coal-fired facilities also add risks of waste management and pollution. Additionally, IPALCO's exposure to physical climate risk is moderate, mostly in the form of extreme weather patterns.

Social

Exposure to social risks is moderate (**S-3** issuer profile score) reflecting the utility sector's fundamental risk that demographics and societal trends could trigger public affordability concerns that could lead to adverse regulatory political intervention. These risks are balanced by neutral to low risk for human capital, customer relationships and responsible production.

Governance

Governance is broadly in line with its parent company, AES Corporation (The), as well as other utilities and does not pose a particular risk (**G-2** issuer profile). This is supported by neutral to low scores on financial strategy and risk management, management credibility and track record, organizational structure, compliance and reporting; despite high risk associated with board structure, policies and procedures due to the presence of minority shareholders that brings additional complexity to the board structure.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Liquidity Analysis

IPALCO does not maintain its own credit facility and the organization relies solely on IPL's revolving credit facilities for external financing, a credit and liquidity weakness. IPL is IPALCO's main source of cash flow used to meet its financial obligations including distributions to AES (dividends and up-streamed cash flow under a tax sharing agreement) and interest payments on its holding company debt of around $30 million p.a.

IPL maintains an adequate liquidity profile. At the end of September 2022, IPL had $115 million available under its 5-year $250 million revolving credit facility. The facility, scheduled to expire in June 2024, includes a $150 million accordion feature (subject to lenders' approval). Its single financial covenant requires a maximum total debt to total capitalization of 67%. We estimate the ratio approximated 55% at the end of September 2022 (2021: 52%), and assume that it will remain well in compliance with this covenant. Failure to comply could cause an event of default that would also limit IPL's ability to distribute dividends.

In June 2022, IPL entered into a 364-day $200 million term loan that was scheduled to expire in June 2023. However, it fully repaid it with the net proceeds raised in connection with 10-year $350 million first mortgage bond issued in November 2022. IPL used the balance of the proceeds to also fully repay the outstanding borrowings under the revolving facility. We anticipate that the facility will be almost fully available at year-end 2022. IPL's next debt maturity consists of $40 million of FMB due in December 2024 followed by another $40 million FMB due in August 2025.

As mentioned earlier, IPL delayed some of the investments initially earmarked in 2022 to 2023 and 2024. Therefore, the capex in 2023 will be higher than the planned investments disclosed earlier this year that aggregated $576 million. We expect that IPL will fund its capital requirements including its investments and dividend distributions (as a point of reference LTM September 2022: $168 million) with internally generated operating cash flow (LTM September 2022: $220 million), borrowings under IPL's credit facility and long-term debt issuances as well as shareholders' equity contributions. AES and CDPQ's equity contribution of $253 million to IPALCO in December 2022 comes on the heels of the $275 million contribution made in the 4Q2021. The utility also plans to redeem its outstanding $60 million preferred stock before year-end 2022.

Rating Methodology and Scorecard Factors

Moody's evaluates the financial performance of IPALCO and IPL relative to the standard business risk grid under the Regulated Electric and Gas Utilities Methodology published in June 2017. As depicted in the grid below, IPALCO's scorecard-indicated outcome based on projected credit metrics is Baa3, the same as its actual assigned rating, which remains tempered by IPALCO's material holding company debt.

Exhibit 7

Rating FactorsIPALCO Enterprises, Inc.

Regulated Electric and Gas Utilities Industry [1][2]	Current LTM 9/30/2022		Moody's 12-18 Month Forward View As of Date Published [3]	
Factor 1 : Regulatory Framework (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A	A	A
b) Consistency and Predictability of Regulation	A	A	A	A
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	A	A	A	A
b) Sufficiency of Rates and Returns	A	A	A	A
Factor 3 : Diversification (10%)				
a) Market Position	Baa	Baa	Baa	Baa
b) Generation and Fuel Diversity	Baa	Baa	Baa	Baa
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	3.6x	Baa	3x - 4.5x	Baa
b) CFO pre-WC / Debt (3 Year Avg)	11.8%	Ba	11% - 13%	Ba
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	7.3%	Ba	6% - 11%	Ba
d) Debt / Capitalization (3 Year Avg)	75.6%	Caa	70% - 75%	B
Rating:				
Scorecard-Indicated Outcome Before Notching Adjustment		Baa2		Baa2
HoldCo Structural Subordination Notching	-1	-1	-1	-1
a) Scorecard-Indicated Outcome		Baa3		Baa3
b) Actual Rating Assigned		Baa3		Baa3

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2] As of 9/30/2022 (L)
[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.
[4] Standard risk for financial strength.
Source: Moody's Financial Metrics

Appendix

Exhibit 8

Cash Flow and Credit Metrics [1]

CF Metrics	Dec-18	Dec-19	Dec-20	Dec-21	LTM Sept-22
As Adjusted					
FFO	345	387	360	359	322
+/- Other	53	-2	-7	-8	-11
CFO Pre-WC	398	385	353	351	311
+/- ΔWC	3	11	-59	-127	-118
WC	401	396	294	224	193
WC	398	385	353	351	311
CFO	401	396	294	224	193
- Div	132	138	110	133	139
- Capex	224	214	236	318	489
FCF	45	45	-52	-227	-435
(CFO Pre-W/C) / Debt	14.6%	14.1%	12.8%	12.7%	10.3%
(CFO Pre-W/C - Dividends) / Debt	9.8%	9.1%	8.8%	7.9%	5.7%
FFO / Debt	12.7%	14.2%	13.1%	13.0%	10.6%
RCF / Debt	7.8%	9.1%	9.1%	8.2%	6.0%
Revenue	1,451	1,482	1,353	1,426	1,660
Interest Expense	99	124	131	127	130
Net Income	95	140	105	103	79
Total Assets	4,862	4,929	4,970	5,240	5,525
Total Liabilities	4,289	4,379	4,419	4,415	4,682
Total Equity	573	549	551	824	843

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Periods are Financial Year-End unless indicated otherwise. LTM = Last Twelve Months
Source: Moody's Financial Metrics

Exhibit 9

Peer Comparison Table [1]

	IPALCO Enterprises, Inc. Baa3 (Stable)			Cleco Corporate Holdings LLC Baa3 (Stable)			Puget Energy, Inc. Baa3 (Stable)		
(In US millions)	FYE Dec-20	FYE Dec-21	LTM Sept-22	FYE Dec-20	FYE Dec-21	LTM Sept-22	FYE Dec-20	FYE Dec-21	LTM Sept-22
Revenue	1,353	1,426	1,660	1,498	1,746	2,124	3,326	3,806	3,996
CFO Pre-W/C	353	351	311	306	213	405	813	849	831
Total Debt	2,757	2,762	3,036	3,481	3,641	3,931	7,035	7,137	7,164
CFO Pre-W/C + Interest / Interest	3.7x	3.8x	3.4x	3.1x	2.5x	3.6x	3.2x	3.5x	3.5x
CFO Pre-W/C / Debt	12.8%	12.7%	10.3%	8.8%	5.9%	10.3%	11.6%	11.9%	11.6%
CFO Pre-W/C – Dividends / Debt	8.8%	7.9%	5.7%	8.8%	5.9%	4.7%	10.9%	10.4%	11.0%
Debt / Capitalization	76.9%	71.2%	72.6%	50.5%	49.5%	51.0%	58.7%	56.6%	55.9%

[1] Al figures & ratios calculated Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade
Source: Moody's Financial Metrics

Ratings

Exhibit 10

Category	Moody's Rating
IPALCO ENTERPRISES, INC.	
Outlook	Stable
Senior Secured	Baa3
PARENT: AES CORPORATION, (THE)	
Outlook	Stable
Senior Unsecured	Baa3
Pref. Stock	Ba2

INDIANAPOLIS POWER & LIGHT COMPANY	
Outlook	Stable
Issuer Rating	Baa1
First Mortgage Bonds	A2
Senior Secured	A2
Pref. Stock	Baa3

Source: Moody's Investors Service

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Indianapolis Power & Light Co.

June 28, 2022

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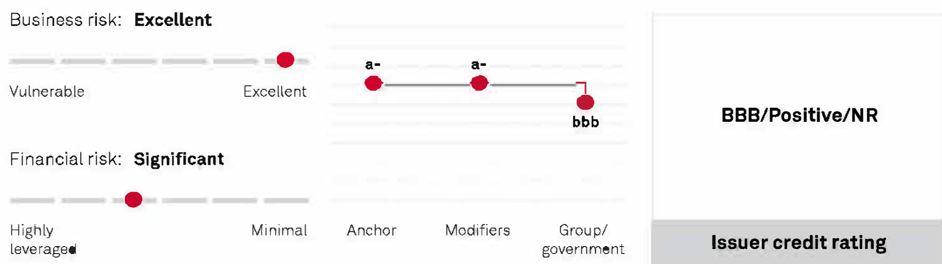

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Credit Highlights

Overview

Key strengths	Key risks
Largely predictable cash flows resulting from the fully regulated nature of the company's vertically integrated electric utility operations.	The company depends on the Indiana Utility Regulatory Commission to sustain its credit quality given that all of its operations are in Indiana.
Management of regulatory risk is effective, with constructive regulatory mechanisms present, such as fuel adjustment riders, riders to recover certain environmental expenditures, and a Transmission Distribution Storage System Improvement Charge (TDSIC) plan.	Midsize, a somewhat elevated exposure to commercial and industrial customers, and a lack of decoupling mechanisms leaves IPL more susceptible to adverse local economic conditions compared with peers.
Our view of intermediate parent IPALCO Enterprises Inc. as an insulated subsidiary of AES Corp. allows us to currently rate Indianapolis Power & Light Co. (d/b/a AES Indiana) one notch above ultimate parent AES.	AES Indiana's coal-fired generation exposes it to environmental risks.

The positive outlook incorporates our expectation that AES Indiana's intermediate parent IPALCO's funds from operations (FFO) to debt could consistently improve to greater than 13% over the forecast period. This is predicated on IPALCO receiving incremental equity injections in addition to the $275 million it received in 2021 from its owners The AES Corp. and Caisse de depot et placement du

Quebec (CDPQ) over the coming years. Furthermore, we will be monitoring the company's ability to earn adequate returns on its investments to replace about 630 megawatts (MW) of generation from its coal-fired Petersburg plant with renewable resources.

Indiana's regulatory framework currently supports AES Indiana's overall credit quality. Indiana's stable and transparent regulatory environment provides adequate opportunities to earn close to authorized returns. AES Indiana benefits from rate riders, which generally allow for the timely cost recovery of its fuel expenses and most of its incremental environmental capital spending, as well as a TDSIC plan.

Insulating measures allow us to currently rate intermediate parent IPALCO, as well as AES Indiana, one notch above ultimate parent AES. These measures largely include separateness provisions, and shareholder rights by CDPQ, a significant minority shareholder.

Outlook

The positive outlook reflects the likelihood that we will raise the ratings over the next 24 months if parent IPALCO's FFO to debt remains consistently above 13%.

Downside scenario

We can revise the outlook back to stable if IPALCO's FFO to debt remains below 13%, which could occur if the company does not receive adequate recovery of its investments or if its owners do not fund these investments in a credit-supportive manner.

Upside scenario

We can upgrade IPALCO and AES Indiana over the next 24 months if:

- IPALCO's owners fund the company's elevated capital spending plan in a credit supportive manner;
- The company is able to effectively manage its regulatory risk; and
- If we expect IPALCO's FFO to debt to remain above 13%.

Our Base-Case Scenario

Assumptions

- Continued use of regulatory mechanisms, such as general rate cases and other riders;
- Capital spending that averages about $480 million annually;
- Equity infusions from the parent to fund the company's elevated capital spending plan;
- Dividends that approximate about 100% of net income;
- Negative discretionary cash flow; and
- The refinancing of all debt maturities.

Key metrics

Indianapolis Power & Light Co. --Key Metrics*

	2021a	2022e	2023f	2024f
EBITDA	515.3	510-560	540-590	730-780
FFO	387.1	375-425	400-450	570-620
Capital expenditures	319.1	625-675	575-625	325-375
Free operating cash flow	(75.8)	(300)-(250)	(225)-(175)	150-200

Discretionary cash flow	(231.5)	(400)-(350)	(350)-(300)	(100)-(50)
Debt	2,066.5	2,400-2,500	2,450-2,550	2,550-2,650
FFO to debt (%)	18.7	15-18	15-18	20-23
Debt to EBITDA (x)	4.0	4.0-5.0	4.0-5.0	3.0-4.0
FFO cash interest coverage ratio (x)	5.4	4.5-5.5	4-5	5.5-6.5

*All figures adjusted by S&P Global Ratings. a--Actual. e--Estimate. f--Forecast.

Company Description

AES Indiana is an energy service holding company owned by IPALCO which is 70% owned by AES and 30% by minority investor CDPQ. AES Indiana, generates, transmits, distributes, and sells electricity to about 500,000 customers in Indianapolis and surrounding areas. The company operates four generating stations with a combined capacity of about 3,700 megawatts, 45% of which it derives from coal.

Peer Comparison

Indianapolis Power & Light Co.--Peer Comparisons

	Indianapolis Power & Light Co.	ALLETE Inc.	Dayton Power & Light Co.
Foreign currency issuer credit rating	BBB/Positive/NR	BBB/Stable/A-2	BB+/Watch Neg/NR
Local currency issuer credit rating	BBB/Positive/NR	BBB/Stable/A-2	BB+/Watch Neg/NR
Period	Annual	Annual	Annual
Period ending	2021-12-31	2021-12-31	2021-12-31
Mil.	$	$	$
Revenue	1,426	1,419	664
EBITDA	515	430	154
Funds from operations (FFO)	387	359	129
Interest	95	82	31
Cash interest paid	87	71	25
Operating cash flow (OCF)	243	273	127
Capital expenditure	319	477	186
Free operating cash flow (FOCF)	(76)	(204)	(59)
Discretionary cash flow (DCF)	(232)	(336)	(111)
Cash and short-term investments	3	45	14
Gross available cash	3	45	14
Debt	2,067	2,197	659

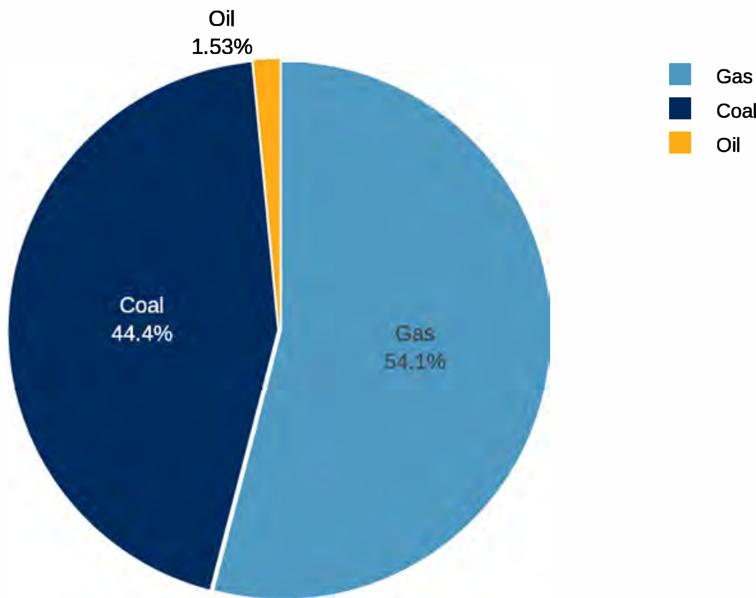
Indianapolis Power & Light Co.--Peer Comparisons

Equity	1,691	2,946	782
EBITDA margin (%)	36.1	30.3	23.2
Return on capital (%)	7.3	3.7	6.0
EBITDA interest coverage (x)	5.4	5.3	5.0
FFO cash interest coverage (x)	5.4	6.1	6.2
Debt/EBITDA (x)	4.0	5.1	4.3
FFO/debt (%)	18.7	16.4	19.6
OCF/debt (%)	11.8	12.4	19.2
FOCF/debt (%)	(3.7)	(9.3)	(9.0)
DCF/debt (%)	(11.2)	(15.3)	(16.9)

Business Risk

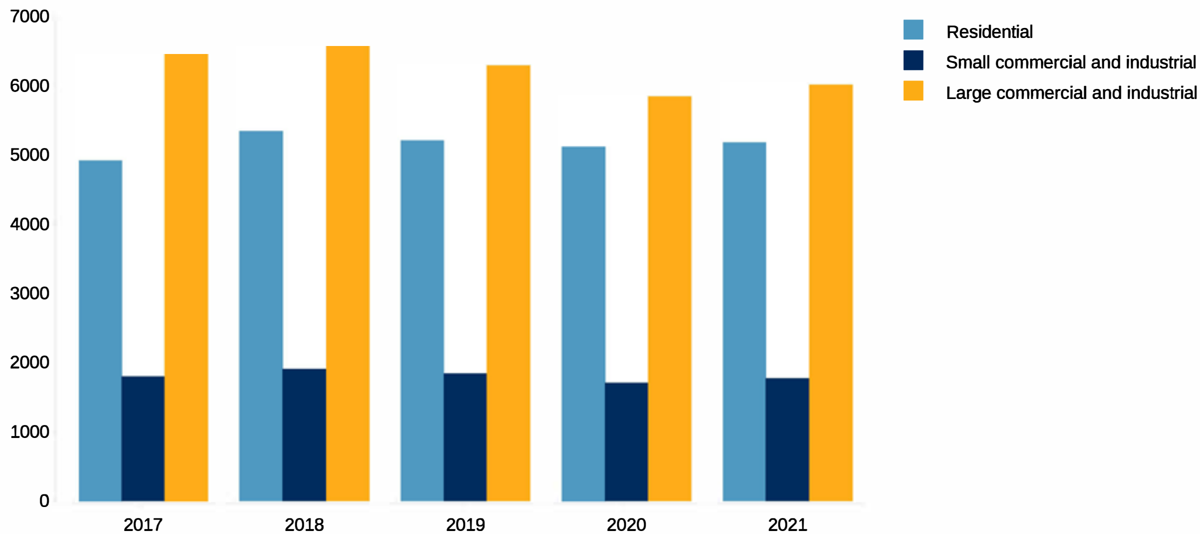
Our assessment of AES Indiana's business risk reflects its lower-risk, rate-regulated, vertically integrated electric utility operations. Although AES Indiana has a midsize customer base and generates much of its electricity from coal-fired units (about 45%), it effectively manages regulatory risk under the Indiana Utility Regulatory Commission, earning generally stable returns. AES Indiana further benefits from numerous rate riders, allowing for timely cost recovery of its fuel expenses and the majority of its incremental environmental capital spending.

Indianapolis Power & Light 2021 Summer Generation Capacity



Source: Company filings

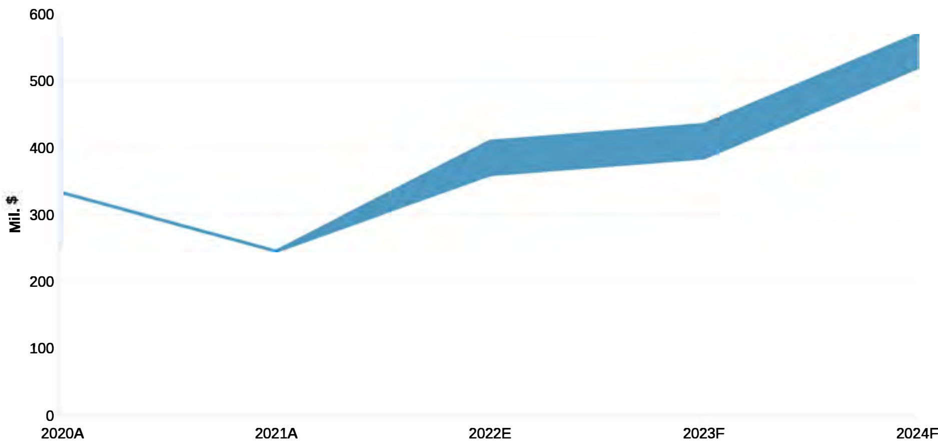
Additionally, the company recently received approval for its TDSIC plan, which outlines investments of about $1.2 billion and permits the company to earn a tracked return of and on capital spent between 2020 and 2027. We believe this supports AES Indiana's credit quality since these investments support low-risk, regulated growth. That said, AES Indiana does not have a revenue decoupling mechanism and derives about 55% of its sales from more cyclical commercial and industrial (C&I) customers, which were hurt throughout the pandemic, affecting EBITDA by about 5%-10%. However, in our view, this is partially mitigated by the utility's load stability derived from providing electric service to the city of Indianapolis, and by the relative stability of its residential sales, which have higher margins.



Source: Company filings

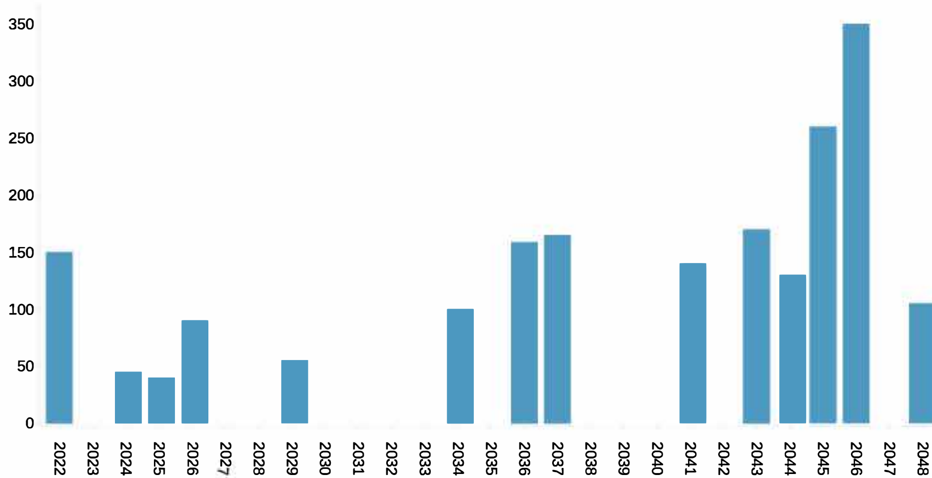
Financial Risk

We assess AES Indiana's financial measures against our medial volatility table, reflecting the company's lower-risk, rate-regulated utility assets and effective management of regulatory risk. Our base-case scenario assumes capital spending averages about $480 million annually, rider recoveries, negative discretionary cash flow, the refinancing of all debt maturities, equity infusions from IPALCO, and dividends approximating net income.



Source: Company filings.

Debt maturities



Source: Company filings.

Indianapolis Power & Light Co.--Financial Summary

Period ending	Dec-31-2016	Dec-31-2017	Dec-31-2018	Dec-31-2019	Dec-31-2020	Dec-31-2021

Indianapolis Power & Light Co.--Financial Summary

Reporting period	2016a	2017a	2018a	2019a	2020a	2021a
Display currency (mil.)	$	$	$	$	$	$
Revenues	1,347	1,350	1,451	1,482	1,353	1,426
EBITDA	483	452	474	544	518	515
Funds from operations (FFO)	346	278	352	415	402	387
Interest expense	85	94	95	99	99	95
Cash interest paid	80	87	88	92	89	87
Operating cash flow (OCF)	306	272	379	418	330	243
Capital expenditure	570	198	200	216	238	319
Free operating cash flow (FOCF)	(264)	74	179	202	92	(76)
Discretionary cash flow (DCF)	(399)	(57)	35	43	(56)	(232)
Cash and short-term investments	27	12	27	42	18	3
Gross available cash	27	12	27	42	18	3
Debt	1,843	1,932	1,896	1,970	2,051	2,067
Common equity	1,388	1,396	1,459	1,424	1,425	1,691
Adjusted ratios						
EBITDA margin (%)	35.9	33.5	32.7	36.7	38.3	36.1
Return on capital (%)	9.6	8.1	7.0	9.1	8.0	7.3
EBITDA interest coverage (x)	5.7	4.8	5.0	5.5	5.2	5.4
FFO cash interest coverage (x)	5.3	4.2	5.0	5.5	5.5	5.4
Debt/EBITDA (x)	3.8	4.3	4.0	3.6	4.0	4.0
FFO/debt (%)	18.8	14.4	18.6	21.1	19.6	18.7
OCF/debt (%)	16.6	14.1	20.0	21.2	16.1	11.8
FOCF/debt (%)	(14.3)	3.9	9.4	10.3	4.5	(3.7)
DCF/debt (%)	(21.6)	(2.9)	1.8	2.2	(2.7)	(11.2)

Reconciliation Of Indianapolis Power & Light Co. Reported Amounts With S&P Global Adjusted Amounts (Mil. $)

	Debt	Shareholder Equity	Revenue	EBITDA	Operating income	Interest expense	S&PGR adjusted EBITDA	Operating cash flow	Dividends	Capital expenditure
Financial year	Dec-31-2021									
Company reported amounts	1,840	1,751	1,426	507	251	84	515	248	159	319
Cash taxes paid	-	-	-	-	-	-	(41)	-	-	-
Cash interest paid	-	-	-	-	-	-	(84)	-	-	-
Lease liabilities	20	-	-	-	-	-	-	-	-	-

Reconciliation Of Indianapolis Power & Light Co. Reported Amounts With S&P Global Adjusted Amounts (Mil. $)

	Debt	Shareholder Equity	Revenue	EBITDA	Operating income	Interest expense	S&PGR adjusted EBITDA	Operating cash flow	Dividends	Capital expenditure
Debt-like hybrids	60	(60)	-	-	-	3	(3)	(3)	(3)	-
Accessible cash and liquid investments	(3)	-	-	-	-	-	-	-	-	-
Asset-retirement obligations	150	-	-	8	8	8	-	-	-	-
Nonoperating income (expense)	-	-	-	-	6	-	-	-	-	-
Reclassification of interest and dividend cash flows	-	-	-	-	-	-	-	(1)	-	-
Total adjustments	227	(60)	-	8	14	11	(128)	(5)	(3)	-
S&P Global Ratings adjusted	**Debt**	**Equity**	**Revenue**	**EBITDA**	**EBIT**	**Interest expense**	**Funds from Operations**	**Operating cash flow**	**Dividends**	**Capital expenditure**
	2,067	1,691	1,426	515	265	95	387	243	156	319

Liquidity

AES Indiana has adequate liquidity, in our view, and can more than cover its needs for the next 12 months, even if EBITDA declines by 10%. We expect the company's liquidity sources to exceed uses by more than 1.1x over the next 12 months. Under our stress scenario, we do not believe AES Indiana would require access to the capital markets during that period to meet its liquidity needs. The company has sound relationships with banks, satisfactory standing in the credit markets, and could absorb a high-impact, low-probability event with limited need for refinancing.

Principal liquidity sources

- Cash FFO of about $400 million;
- Credit facility availability of about $100 million; and
- Minimal cash.

Principal liquidity uses

- No upcoming long- term debt maturities over the next 12 months;
- Maintenance capital spending of about $325 million; and
- Dividends of about $115 million.

Environmental, Social, And Governance

ESG Credit Indicators

E-1	E-2	**E-3**	E-4	E-5
- Climate transition risks				

S-1	**S-2**	S-3	S-4	S-5
- N/A				

G-1	**G-2**	G-3	G-4	G-5
- N/A				

N/A—Not available. ESG credit indicators provide additional disclosure and transparency at the entity level and reflect S&P Global Ratings' opinion of the influence that environmental, social, and governance factors have on our credit rating analysis. They are not a sustainability rating or an S&P Global Ratings ESG Evaluation. The extent of the influence of these factors is reflected on an alphanumerical 1 - 5 scale where 1 = positive, 2 = neutral, 3 = moderately negative, 4 = negative, and 5 = very negative. For more information, see our commentary "ESG Credit Indicator Definitions And Applications," published Oct. 13, 2021.

Environmental factors are a moderately negative consideration in our credit rating analysis of IPALCO. In 2020, the company relied on coal-fired facilities for about 45% of its power generation. Though the company expects the proportion of its generation capacity from coal will comprise less than 30% by 2036, its exposure to coal and other fossil fuels is still considerable. This exposes it to heightened risks, including the ongoing cost of operating older units in the face of disruptive technology advances and the potential for changing environmental regulations that could require significant capital investments.

Group Influence

S&P Global Ratings bases its rating on AES Indiana on the consolidated group credit profile of its parent IPALCO and the application of our group rating methodology. We deem IPALCO to be a moderately strategic subsidiary of AES, and consider AES Indiana a core entity, integral to IPALCO. We rate IPALCO 'BBB', one notch higher than the 'bbb-' consolidated group credit profile of ultimate parent AES due to the cumulative value of structural protections that insulate IPALCO from AES and the strength of its stand-alone credit profile. These protections include:

- IPALCO is a separate legal entity with its own capital structure, maintains its own records, and does not commingle funds, assets, or cash flows with the rest of the AES group.
- IPALCO and AES Indiana have their own debt arrangements and operations that are separate from the rest of the AES group.
- We believe there is a strong economic basis for the AES group to preserve the credit strength of IPALCO, reflecting IPALCO's low risk, profitable, and regulated operations.
- CDPQ is a significant minority shareholder of IPALCO and has an active economic interest with board member representation.
- Put-option ability of CDPQ to be able to sell back its shares of IPALCO to AES if CDPQ's nominated directors vote against major board decisions, which include changes to the dividend policy or commencement of a voluntary bankruptcy filing.
- Anti-dilutive measures in place to ensure that CDPQ can maintain its economic interest at current levels.

There are no cross-default provisions between the rest of the AES group and IPALCO (or its AES' other subsidiaries including IPALCO's intermediary holding company) and the minority shareholder's governance rights supports our opinion that a default at AES would not directly lead to a default at IPALCO or its subsidiaries.

While we assess the above structural insulating measures as sufficient to insulate the ratings on IPALCO from the group credit profile (GCP) by as many as two notches, the issuer credit rating (ICR) is currently only one notch above the GCP because it is limited by the SACP on IPALCO. We rate AES Indiana in line with IPALCO since we consider it to be an integral and fully supported subsidiary of IPALCO with a lack of measures in place for ratings to be further insulated from the GCP.

Issue Ratings--Recovery Analysis

Key analytical factors

- We assign recovery ratings to first-mortgage bonds (FMBs) issued by U.S. utilities, which can result in issue ratings notched above an issuer credit rating on a utility depending on the rating category and the extent of the collateral coverage.

- AES Indiana's FMBs benefit from a first-priority lien on substantially all of the utility's real property owned or subsequently acquired. Collateral coverage of more than 1.5x supports a recovery rating of '1+' and an issue rating two notches above the issuer credit rating.

Rating Component Scores

Foreign currency issuer credit rating	**BBB/Positive/NR**
Local currency issuer credit rating	**BBB/Positive/NR**
Business risk	**Excellent**
Country risk	Very Low
Industry risk	Very Low
Competitive position	Strong
Financial risk	**Significant**
Cash flow/leverage	Significant
Anchor	**a-**
Diversification/portfolio effect	Neutral (no impact)
Capital structure	Neutral (no impact)
Financial policy	Neutral (no impact)
Liquidity	Adequate (no impact)
Management and governance	Satisfactory (no impact)
Comparable rating analysis	Neutral (no impact)
Stand-alone credit profile	**a-**
Group credit profile	**bbb**
Entity status within group	**Core (-2 notches from SACP)**

Related Criteria

- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Recovery Rating Criteria For Speculative-Grade Corporate Issuers, Dec. 7, 2016
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria | Corporates | Utilities: Collateral Coverage And Issue Notching Rules For '1+' And '1' Recovery Ratings On Senior Bonds Secured By Utility Real Property, Feb. 14, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

Ratings Detail (as of June 28, 2022)*

Indianapolis Power & Light Co.	
Issuer Credit Rating	BBB/Positive/NR
Preferred Stock	BB+
Senior Secured	A-
Issuer Credit Ratings History	
07-Jun-2021	BBB/Positive/NR
16-Mar-2018	BBB/Stable/NR
13-Apr-2016	BBB-/Stable/NR
Related Entities	
AES Andes S.A.	
Issuer Credit Rating	BBB-/Stable/--
Junior Subordinated	BB
Senior Unsecured	BBB-
AES Andres B.V.	
Issuer Credit Rating	BB-/Stable/--
Senior Unsecured	BB-
AES Argentina Generacin S.A.	
Issuer Credit Rating	CCC+/Negative/--
Senior Unsecured	CCC+
AES Corp. (The)	
Issuer Credit Rating	BBB-/Stable/--
Preferred Stock	BB
Senior Secured	BBB-
Senior Unsecured	BBB-
Dayton Power & Light Co.	
Issuer Credit Rating	BB+/Watch Neg/NR
Senior Secured	BBB+/Watch Neg
DPL Inc.	
Issuer Credit Rating	BB+/Watch Neg/NR
Senior Unsecured	BB+/Watch Neg
IPALCO Enterprises Inc.	
Issuer Credit Rating	BBB/Positive/NR
Senior Secured	BBB-

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings credit ratings on the global scale are comparable across countries. S&P Global Ratings credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

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S&P Global
Ratings

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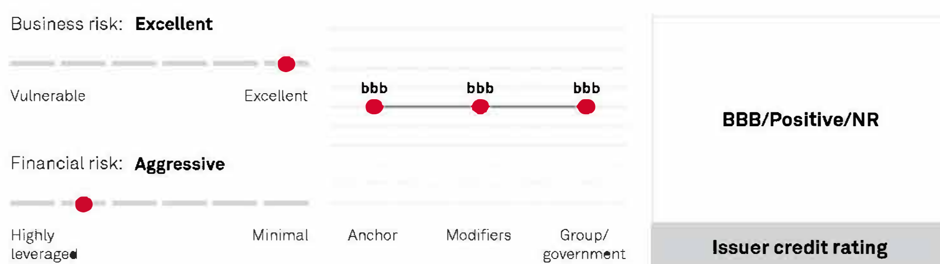
IPALCO Enterprises Inc.

June 28, 2022

Ratings Score Snapshot



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Credit Highlights

Overview

Key strengths	Key risks
Largely predictable cash flows resulting from the fully regulated nature of the company's vertically integrated electric utility operations.	Dependence on the Indiana Utility Regulatory Commission (IURC) to sustain credit quality given all of its operations are in Indiana.
Effective management of regulatory risk, with constructive regulatory mechanisms such as fuel adjustment riders; riders to recover certain environmental expenditures; and a transmission, distribution, and storage improvement charge (TDSIC) plan.	Midsize, somewhat elevated exposure to commercial and industrial (C&I) customers, and a lack of decoupling mechanisms, leave it more susceptible to adverse local economic conditions compared to peers.
An insulated subsidiary of AES Corp., allowing us to rate it one notch above AES.	Coal-fired generation exposes it to environmental risks.

The positive outlook incorporates our expectation that IPALCO's funds from operations (FFO) to debt could consistently improve to greater than 13% over the forecast period. This is predicated on IPALCO receiving incremental equity injections in addition to the $275 million it received in 2021 from its owners The AES Corp. and Caisse de depot et placement du Quebec (CDPQ) over the coming years.

Furthermore, we will be monitoring the company's ability to earn adequate returns on its investments to replace about 630 megawatts (MW) of generation from its coal-fired Petersburg plant with renewable resources.

Indiana's regulatory framework currently supports IPALCO's overall credit quality. Indiana's stable and transparent regulatory environment provides adequate opportunities to earn close to authorized returns. IPALCO benefits from rate riders, which generally allow for the timely cost recovery of its fuel expenses and most of its incremental environmental capital spending, as well as a TDSIC plan.

Insulating measures allow us to currently rate IPALCO one notch above its parent AES. These measures largely include separateness provisions, and shareholder rights by CDPQ, a significant minority shareholder.

Outlook

The positive outlook reflects the likelihood that we can raise the ratings over the next 24 months if IPALCO's funds from operations FFO to debt remains consistently above 13%.

Downside scenario

We can revise the outlook back to stable if the company's FFO to debt remains below 13%, which could occur if it does not receive adequate recovery of its investments or if its owners do not fund these investments in a credit-supportive manner.

Upside scenario

We can upgrade IPALCO over the next 24 months if:

- IPALCO's owners fund the company's elevated capital spending plan in a credit supportive manner;
- The company is able to effectively manage its regulatory risk; and
- We expect IPALCO's FFO to debt to remain above 13%.

Our Base-Case Scenario

Assumptions

- Continued use of regulatory mechanisms, such as general rate cases and other riders;
- Capital spending that averages about $480 million annually;
- Dividends that approximate about 100% of net income;
- Negative discretionary cash flow; and
- Refinancing of all debt maturities.

Key metrics

IPALCO Enterprises Inc. --Key Metrics*

	2021a	2022e	2023f	2024f
EBITDA	514.9	510-560	540-590	730-780
FFO	364.8	330-380	350-400	520-570
Capital expenditures	319.1	625-675	575-625	325-375
Free operating cash flow	(98.5)	(325)-(275)	(250)-(200)	125-175
Discretionary cash flow	(229.9)	(400)-(350)	(350)-(300)	(100)-(50)

Debt	2,934.7	3,250-3,350	3,300-3,400	3,400-3,500
FFO to debt (%)	12.4	11-13	11-13	15-17
Debt to EBITDA (x)	5.7	6.0-7.0	5.5-6.5	4.0-5.0
FFO cash interest coverage ratio (x)	4.0	3-4	3-4	4-5

*All figures adjusted by S&P Global Ratings. a--Actual. e--Estimate. f--Forecast.

Company Description

IPALCO is an energy service holding company 70% owned by AES and 30% by minority investor CDPQ. IPALCO, through its wholly owned subsidiary AES Indiana, generates, transmits, distributes, and sells electricity to about 500,000 customers in Indianapolis and surrounding areas. The company operates four generating stations with a combined capacity of about 3,700 megawatts, 45% of which it derives from coal.

Peer Comparison

IPALCO Enterprises Inc.--Peer Comparisons

	IPALCO Enterprises Inc.	ALLETE Inc.	DPL Inc.	Duke Energy Indiana Inc.
Foreign currency issuer credit rating	BBB/Positive/NR	BBB/Stable/A-2	BB+/Watch Neg/NR	BBB+/Stable/A-2
Local currency issuer credit rating	BBB/Positive/NR	BBB/Stable/A-2	BB+/Watch Neg/NR	BBB+/Stable/A-2
Period	Annual	Annual	Annual	Annual
Period ending	2021-12-31	2021-12-31	2021-12-31	2021-12-31
Mil.	$	$	$	$
Revenue	1,426	1,419	673	3,174
EBITDA	515	430	161	1,430
Funds from operations (FFO)	365	359	116	1,178
Interest	137	82	69	233
Cash interest paid	123	71	63	196
Operating cash flow (OCF)	221	273	113	1,023
Capital expenditure	319	477	188	818
Free operating cash flow (FOCF)	(98)	(204)	(75)	205
Discretionary cash flow (DCF)	(230)	(336)	(75)	80
Cash and short-term investments	7	45	27	6
Gross available cash	7	45	27	6
Debt	2,935	2,197	1,541	5,428

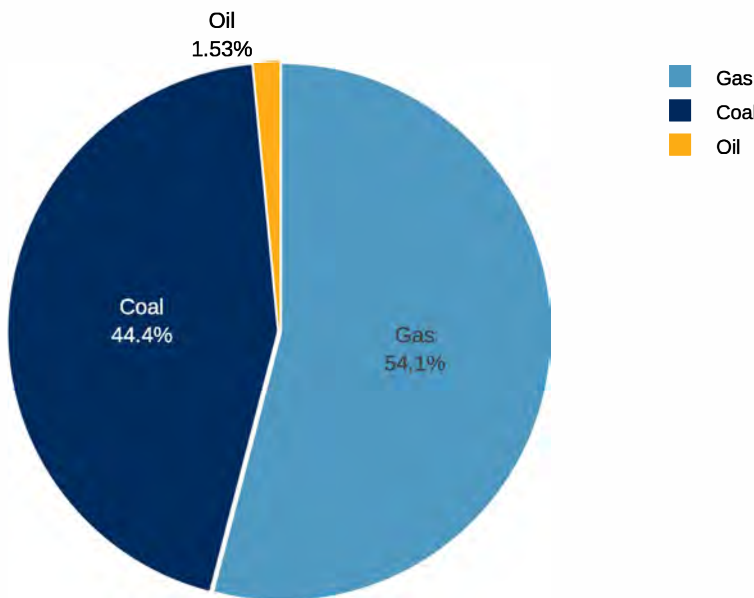
IPALCO Enterprises Inc.--Peer Comparisons

Equity	795	2,946	(121)	5,015
EBITDA margin (%)	36.1	30.3	24.0	45.1
Return on capital (%)	7.4	3.7	6.4	7.9
EBITDA interest coverage (x)	3.8	5.3	2.3	6.1
FFO cash interest coverage (x)	4.0	6.1	2.8	7.0
Debt/EBITDA (x)	5.7	5.1	9.5	3.8
FFO/debt (%)	12.4	16.4	7.5	21.7
OCF/debt (%)	7.5	12.4	7.3	18.8
FOCF/debt (%)	(3.4)	(9.3)	(4.8)	3.8
DCF/debt (%)	(7.8)	(15.3)	(4.8)	1.5

Business Risk

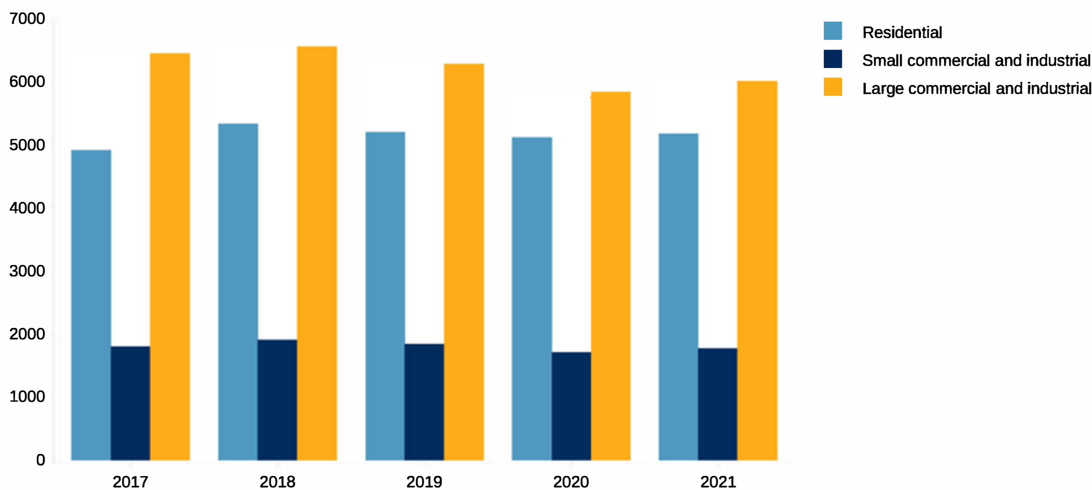
Our assessment of IPALCO's business risk reflects its lower-risk, rate-regulated, vertically integrated electric utility operations. Although IPALCO has a midsize customer base with a large industrial exposure and generates much of its electricity from coal-fired units (about 45%), it effectively manages regulatory risk under the IURC, earning generally stable returns. IPALCO further benefits from numerous rate riders, allowing for timely cost recovery of its fuel expenses and the majority of its incremental environmental capital spending.

Indianapolis Power & Light 2021 Summer Generation Capacity



Source: Company filings

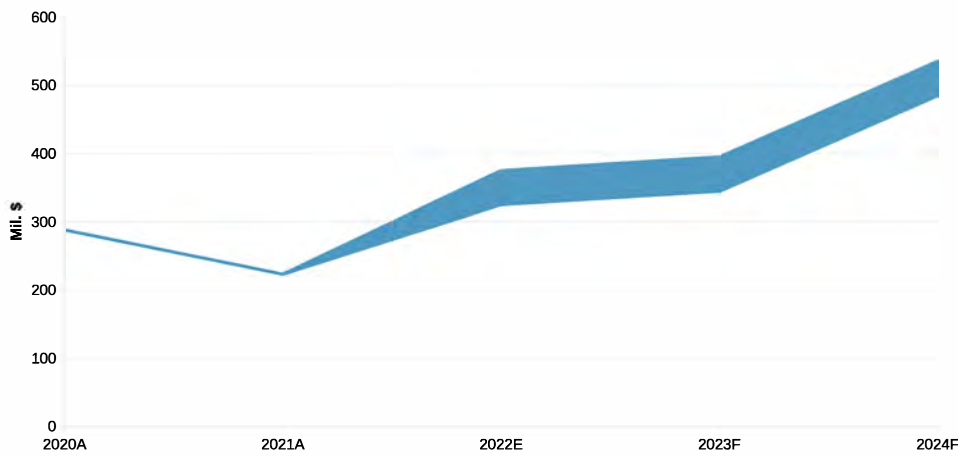
Additionally, the company recently received approval for its TDSIC plan, which outlines investments of about $1.2 billion and permits the company to earn a tracked return of and on capital spent between 2020 and 2027. We believe this supports AES Indiana's credit quality, since these investments support low-risk, regulated growth. That said, IPALCO does not have a revenue decoupling mechanism and derives about 55% of its sales from more cyclical commercial and industrial (C&I) customers, which were hurt throughout the pandemic, affecting EBITDA by about 5%-10%. However, in our view, this is partially mitigated by the utility's load stability derived from providing electric service to the city of Indianapolis, and by the relative stability of its residential sales, which have higher margins.



Source: Company filings

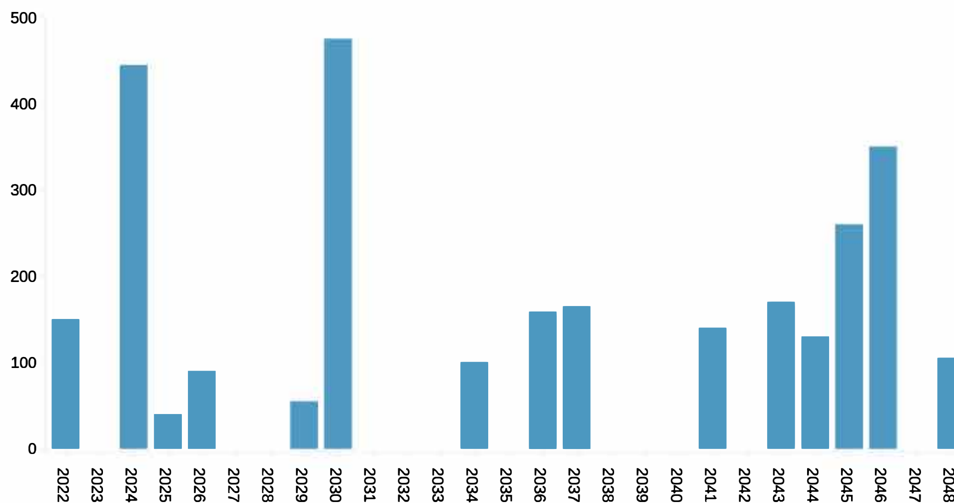
Financial Risk

We assess IPALCO's financial measures against our medial volatility table, reflecting the company's lower-risk, rate-regulated utility assets and effective management of regulatory risk. Our base-case scenario assumes capital spending averages about $480 million annually, rider recoveries, recovery of load from 2020 levels, negative discretionary cash flow, the refinancing of all debt maturities, equity infusions from the owners, and dividends approximating net income.



Source: Company filings.

Debt maturities



Source: Company filings.

IPALCO Enterprises Inc.--Financial Summary

Period ending	Dec-31-2016	Dec-31-2017	Dec-31-2018	Dec-31-2019	Dec-31-2020	Dec-31-2021

IPALCO Enterprises Inc.--Financial Summary

Reporting period	2016a	2017a	2018a	2019a	2020a	2021a
Display currency (mil.)	$	$	$	$	$	$
Revenues	1,347	1,350	1,451	1,482	1,353	1,426
EBITDA	483	452	473	544	518	515
Funds from operations (FFO)	340	268	319	394	365	365
Interest expense	123	129	138	131	141	137
Cash interest paid	115	119	126	121	126	123
Operating cash flow (OCF)	299	261	346	395	285	221
Capital expenditure	570	198	192	216	238	319
Free operating cash flow (FOCF)	(271)	64	154	179	47	(98)
Discretionary cash flow (DCF)	(392)	(40)	29	42	(62)	(230)
Cash and short-term investments	35	31	33	48	21	7
Gross available cash	35	31	33	48	21	7
Debt	2,634	2,722	2,759	2,835	2,930	2,935
Common equity	601	602	603	546	521	795
Adjusted ratios						
EBITDA margin (%)	35.9	33.5	32.6	36.7	38.3	36.1
Return on capital (%)	10.0	8.2	7.4	9.1	8.0	7.4
EBITDA interest coverage (x)	3.9	3.5	3.4	4.1	3.7	3.8
FFO cash interest coverage (x)	4.0	3.3	3.5	4.3	3.9	4.0
Debt/EBITDA (x)	5.4	6.0	5.8	5.2	5.7	5.7
FFO/debt (%)	12.9	9.9	11.5	13.9	12.4	12.4
OCF/debt (%)	11.4	9.6	12.5	13.9	9.7	7.5
FOCF/debt (%)	(10.3)	2.3	5.6	6.3	1.6	(3.4)
DCF/debt (%)	(14.9)	(1.5)	1.0	1.5	(2.1)	(7.8)

Reconciliation Of IPALCO Enterprises Inc. Reported Amounts With S&P Global Adjusted Amounts (Mil. $)

		Debt	Shareholder Equity	Revenue	EBITDA	Operating income	Interest expense	S&PGR adjusted EBITDA	Operating cash flow	Dividends	Capital expenditure
Financial year	Dec-31-2021										
Company reported amounts		2,712	795	1,426	507	251	126	515	225	135	319
Cash taxes paid		--	--	--	--	--	--	(28)	--	--	--
Cash interest paid		--	--	--	--	--	--	(119)	--	--	--
Lease liabilities		20	--	--	--	--	--	--	--	--	--

Reconciliation Of IPALCO Enterprises Inc. Reported Amounts With S&P Global Adjusted Amounts (Mil. $)

	Debt	Shareholder Equity	Revenue	EBITDA	Operating income	Interest expense	S&PGR adjusted EBITDA	Operating cash flow	Dividends	Capital expenditure
Debt-like hybrids	60	(60)	--	--	--	3	(3)	(3)	(3)	--
Accessible cash and liquid investments	(7)	--	--	--	--	--	--	--	--	--
Asset-retirement obligations	150	--	--	8	8	8	--	--	--	--
Nonoperating income (expense)	--	--	--	--	6	--	--	--	--	--
Reclassification of interest and dividend cash flows	--	--	--	--	--	--	--	(1)	--	--
Noncontrolling/ minority interest	--	60	--	--	--	--	--	--	--	--
Total adjustments	223	--	--	8	14	11	(150)	(5)	(3)	--
S&P Global Ratings adjusted	**Debt**	**Equity**	**Revenue**	**EBITDA**	**EBIT**	**Interest expense**	**Funds from Operations**	**Operating cash flow**	**Dividends**	**Capital expenditure**
	2,935	795	1,426	515	265	137	365	221	131	319

Liquidity

We assess IPALCO's liquidity as adequate. In our view, IPALCO can more than cover its needs for the next 12 months, even if EBITDA were to decline by 10%. We expect the company's liquidity sources to exceed uses by more than 1.1x over the next 12 months. Under our stress scenario, we do not believe IPALCO would require access to the capital markets during that period to meet its liquidity needs. The company has sound relationships with banks, satisfactory standing in the credit markets, and could absorb a high-impact, low-probability event with limited need for refinancing.

Principal liquidity sources

- Cash FFO of about $360 million;
- Credit facility availability of about $100 million; and
- Minimal cash on hand.

Principal liquidity uses

- No upcoming long- term debt maturities over the next 12 months;
- Maintenance capital spending of about $325 million; and
- Dividends of about $90 million.

Environmental, Social, And Governance

ESG Credit Indicators

E-1	E-2	**E-3**	E-4	E-5	S-1	**S-2**	S-3	S-4	S-5	G-1	**G-2**	G-3	G-4	G-5

Environmental	Social	Governance
- Climate transition risks	- N/A	- N/A

N/A—Not available. ESG credit indicators provide additional disclosure and transparency at the entity level and reflect S&P Global Ratings' opinion of the influence that environmental, social, and governance factors have on our credit rating analysis. They are not a sustainability rating or an S&P Global Ratings ESG Evaluation. The extent of the influence of these factors is reflected on an alphanumerical 1 - 5 scale where 1 = positive, 2 = neutral, 3 = moderately negative, 4 = negative, and 5 = very negative. For more information, see our commentary "ESG Credit Indicator Definitions And Applications," published Oct. 13, 2021.

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Group Influence

Under our criteria, we view the strength of IPALCO's stand-alone-credit profile (SACP), as well as the cumulative value of structural and regulatory protections in place between itself and ultimate majority parent AES, as sufficient to insulate the ratings on IPALCO from the group credit profile of AES by as many as two notches. Our analysis of the insulating measures takes into account the following:

- IPALCO is a separate legal entity with its own capital structure, maintains its own records, and does not commingle funds, assets, or cash flows with the rest of the AES group.
- IPALCO and AES Indiana have their own debt arrangements and operations that are separate from the rest of the AES group.
- We believe there is a strong economic basis for the AES group to preserve the credit strength of IPALCO, reflecting IPALCO's low risk, profitable, and regulated operations.
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While we assess the above structural insulating measures as sufficient to insulate the ratings on IPALCO from the group credit profile (GCP) by as many as two notches, the issuer credit rating (ICR) is currently only one notch above the GCP because it is limited by the SACP on IPALCO. We rate AES Indiana in line with IPALCO since we consider it to be an integral and fully supported subsidiary of IPALCO with a lack of measures in place for ratings to be further insulated from the GCP. Furthermore, we deem IPALCO to be a moderately strategic subsidiary of AES.

Issue Ratings--Subordination Risk Analysis

Capital structure

IPALCO's capital structure consists of about $880 million of senior notes at the holding company, and about $1.8 billion of secured first-mortgage bonds at AES Indiana.

Analytical conclusions

We rate the senior notes issued at IPALCO's holding company 'BBB-', one-notch below the ICR, as the priority secured first-mortgage bonds at AES Indiana comprise more than 50% of the company's capital structure.

Rating Component Scores

Foreign currency issuer credit rating	**BBB/Positive/NR**
Local currency issuer credit rating	**BBB/Positive/NR**
Business risk	**Excellent**
Country risk	Very Low
Industry risk	Very Low
Competitive position	Strong
Financial risk	**Aggressive**
Cash flow/leverage	Aggressive
Anchor	**bbb**
Diversification/portfolio effect	Neutral (no impact)
Capital structure	Neutral (no impact)
Financial policy	Neutral (no impact)
Liquidity	Adequate (no impact)
Management and governance	Satisfactory (no impact)
Comparable rating analysis	Neutral (no impact)
Stand-alone credit profile	**bbb**
Group credit profile	**bbb-**
Entity status within group	**Insulated**

Related Criteria

- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Recovery Rating Criteria For Speculative-Grade Corporate Issuers, Dec. 7, 2016
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria | Corporates | Utilities: Collateral Coverage And Issue Notching Rules For '1+' And '1' Recovery Ratings On Senior Bonds Secured By Utility Real Property, Feb. 14, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

Ratings Detail (as of June 28, 2022)*

IPALCO Enterprises Inc.	
Issuer Credit Rating	BBB/Positive/NR
Senior Secured	BBB-
Issuer Credit Ratings History	
07-Jun-2021	BBB/Positive/NR
16-Mar-2018	BBB/Stable/NR
13-Apr-2016	BBB-/Stable/NR
Related Entities	
AES Andes S.A.	
Issuer Credit Rating	BBB-/Stable/--
Junior Subordinated	BB
Senior Unsecured	BBB-
AES Andres B.V.	
Issuer Credit Rating	BB-/Stable/--
Senior Unsecured	BB-
AES Argentina Generacin S.A.	
Issuer Credit Rating	CCC+/Negative/--
Senior Unsecured	CCC+
AES Corp. (The)	
Issuer Credit Rating	BBB-/Stable/--
Preferred Stock	BB
Senior Secured	BBB-
Senior Unsecured	BBB-
Dayton Power & Light Co.	
Issuer Credit Rating	BB+/Watch Neg/NR
Senior Secured	BBB+/Watch Neg
DPL Inc.	
Issuer Credit Rating	BB+/Watch Neg/NR
Senior Unsecured	BB+/Watch Neg
Indianapolis Power & Light Co.	
Issuer Credit Rating	BBB/Positive/NR
Preferred Stock	BB+
Senior Secured	A-

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings credit ratings on the global scale are comparable across countries. S&P Global Ratings credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

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FitchRatings

15 APR 2022

Fitch Affirms AES and U.S. Subs; Outlook Remains Negative for DPL and AES Ohio

Fitch Ratings - New York - 15 Apr 2022: Fitch Ratings has affirmed AES Corporation's Long-Term Issuer Default Rating (LT IDR) at 'BBB-'. Fitch has also affirmed the LT IDRs for IPALCO Enterprises, Inc. (IPALCO) at 'BBB-', Indianapolis Power and Light Company (AES Indiana) at 'BBB+', Dayton Power and Light Company (AES Ohio) at 'BBB-' and DPL Inc. at 'BB'. The Rating Outlooks for AES, IPALCO and AES Indiana are Stable. The Outlooks for DPL and AES Ohio remain Negative.

AES' ratings and Stable Outlook are supported by a large and diversified portfolio, long-term contracted and regulated earnings and cash flow, and a strengthened balance sheet. Adjusted pre-tax contribution (PTC) from the U.S. would increase to 50% by 2023, a meaningful improvement from 36% in 2020. Fitch expects AES to produce recourse debt/APOCF (Adjusted Parent-Only Cash Flow) around 4x in 2022 and revert to below 4x thereafter. Fitch applies a deconsolidated approach when calculating AES' credit metrics.

AES Indiana and IPALCO's ratings and Outlook are driven by the stable and predictable regulated utility operations in Indiana. The approved $1.2 billion seven-year plan for eligible transmission, distribution and storage systems improvement is rate base accretive and have minimal regulatory lag. AES Indiana's generation capacity is 43% coal, but 415 MW of coal generation is slated to retire in 2023. Pending the outcome of the next Integrated Resource Plan, AES Indiana could exit coal by 2025.

AES Ohio's distribution rate case remains pending. Staff at the Public Utility Commission of Ohio (PUCO) recently recommended freezing the distribution rate during the Electric Security Plan 1 (EPS1). An order is expected in the second half of 2022. The outcome of the rate case will determine whether or not DPL can sustain its credit metrics below the downgrade trigger. AES Ohio's credit profile is constrained as DPL relies on AES Ohio for debt service.

Key Rating Drivers

AES

Contracted and Diversified Portfolio:

AES invests in regulated utilities and power-generating assets with long and short-term contracts. Approximately 85% of pre-tax contributions (PTC) are from long-term contracts and utilities and remaining are from short-term contracts with contract life less than four years. The average remaining contract life is 13 years including utilities. If excluding utilities, the contract life is eight years, shorter than other contracted power generators.

Fitch view favorably AES' increasing presence in the U.S. AES estimates that PTC from the U.S. could increase to 50% by 2023. AES' diversified asset portfolio mitigates geopolitical adversity affecting a single power market and/or project. This was demonstrated again in 2021 when AES Southland distribution was able to offset the reduction in distribution from AES Andes.

Reasonable Protection from Macroeconomic Conditions

AES' contracted portfolio has some protection against inflation and rising interest rates. 78% of revenue is from contracts indexed to inflation or from regulated utilities. 5% of the revenue has upside potential as existing contracts roll off. The remaining 17% is from fixed contracts, which are mostly renewables without fuel costs and have known cost structure. Nearly 90% of the interest rates are fixed or hedged.

Improving Fuel Mix

In 2021, AES announced an incremental $1 billion of investments in addition to what had been previously announced, $500 million of which would be in renewables and $300 million in the utilities. AES signed 5 GW of renewables with USD-denominated contracts in 2021, bringing total backlog to 9.2 GW and expects to sign 4.5 GW to 5.5 GW of PPAs in 2022. The current backlog includes 93% renewables and energy storage. 2.3 GW of the backlog will come online in 2022.

Fuel mix of AES' generation assets are comprised of 43% renewables, 32% gas, 23% coal and 2% Oil/Diesel. Renewables have increased from 2019's 32% to 43% and coal is reduced from 2019's 34% to 23%. Energy produced from coal generating facilities has declined from 45% of total energy in 2019 to 20% in 2020. AES has committed to exiting coal completely by 2025.

Alto Maipo Bankruptcy

On Nov. 17, 2021, Alto Maipo SpA, owners of a 530 MW hydro project in Chile sponsored by AES Andes, commenced a Chapter 11 reorganization proceeding, due to change in market price expectations, decarbonization initiatives in Chile and hydrological conditions. Pulling out from the uneconomic Alto Maipo project is consistent with Fitch's expectations that AES' projects are largely nonrecourse. Fitch affirmed AES Andes's 'BBB-' IDR and Stable Outlook following the bankruptcy filing. Fitch's previous rating cases did not incorporate distributions from Alto Maipo.

Credit Metrics

In 2020, AES produced a strong FFO leverage ratio of 3.5x. In 2021, FFO leverage was around 4x primary due to increased financing to fund the incremental investments, mostly in renewables and utilities. Fitch expects recourse debt/APOCF in 2022 to be around 4x and then decline to below 4x in 2023 and 2024 as distribution from renewable investments ramps up. Fitch applies a deconsolidated approach in calculating AES' credit metrics, as it finances its operations using primarily non-recourse debt. Approximately 80% of AES' consolidated debt is non-recourse.

AES Indiana and IPALCO

Supportive Regulation

AES Indiana and IPALCO's ratings and Outlook reflect the favorable regulatory environment in Indiana. AES Indiana has minimal commodity price exposure due to a regulatory pass-through mechanism that allows the utility to recover fuel and purchased power costs on a timely basis. AES Indiana relies on Environmental Compliance Cost Recovery Adjustment and the Indiana Senate bills 29 and 251 to reduce regulatory lag. The bills allow the recovery of federally mandated environmental compliance costs and the installation of clean coal technologies reducing airborne emissions associated with the use of coal.

The Transmission, Distribution and Storage System Improvement Charge (TDSIC) statute provides for cost recovery outside of a rate case proceeding for new or replacement for gas or electric safety, reliability and modernization. The statute requires a seven-year plan of eligible investments. Once the plan is approved by the Indiana Utility Regulatory Commission (IURC), 80% of eligible costs can be recovered using a periodic rate adjustment mechanism, minimizing regulatory lag. In March 2020, Indiana Public Utility Commission approved AES Indiana's $1.2 billion seven-year (through 2027) DSIC plan for eligible transmission, distribution and storage systems improvement.

Indiana' authorized ROEs tend to be higher that other states while equity capitalization is lower than average. AES Indiana's authorized ROE is 9.99% and equity capitalization is 41.5%.

Coal Retirement Settlement

Fitch views the approval of the coal retirement settlement favorably. In August 2021, AES Indiana reached a settlement with intervenors associated with its plan to retire approximately 630 MW of coal-fired generation at Petersburg Units 1 and 2. The settlement was approved in November 2021 and allows for creating regulatory assets upon retirement, a method of amortization and recovery of regulatory assets through ongoing amortization through future rate cases. AES Indiana retired 230 MW Petersburg Unit 1 on May 31, 2021 and expects to retire Unit 2 in 2023.

Improving Fuel Mix

AES Indiana's generation capacity continues to be coal-intensive, although fuel diversity has improved substantially in the last 15 years through retirement and new build. In 2021, 43% of AES Indiana's generation capacity was from coal, 56% natural gas and 2% oil. In 2007, 79% of the generation capacity was from coal, 14% natural gas and 7% oil. In 2021, 56.2% of the retail energy was generated from coal-fired steam generation, 22.2% from natural gas-fired units, and 21.6% from power purchase agreements (primarily from renewables) and from the wholesale power market. The coal generation was temporarily high in 2021 due to the outage at Eagle Valley CCGT plant.

In June 2021, IURC also approved AES Indiana's 195 MW Hardy Hills Solar Project to be developed in Clinton County, Indiana and to be completed in 2023. In November 2021, IURC approved AES Indiana's 250 MW solar and 180 MWh energy storage facility to be developed in Pike County, Indiana and to be completed in 2024.

After the retirements of the Petersburg Units 1 and 2 and the commencement of the Hardy Hills and Petersburg renewable projects, approximately 47% of installed capacity will come from natural gas units, 29% from coal-fired generation, 13% from owned renewable projects, and 11% from wind and solar PPAs. AES Indiana will file a new integrated resource plan (IRP) by the end of 2022 that is expected to address the future of the remaining $1 GW of coal generation.

Large Capex

AES Indiana will execute a very large capex program ($1.7 billion) in the next three years. Spending will peak around $900 million in 2022. Approximately $800 million capex will be spent on power generation projects including the solar and battery storage projects. About $500 million will be spent on TDSIC investments, and nearly $400 million will be spent on transmission and distribution related additions, improvements and extensions. Fitch views rate-base accretive investments favorably, but the credit metrics could be elevated.

Credit Metrics

AES Indiana and IPALCO's credit metrics weakened due to COVID-19 and a large capex program. In the last two years, AES Indiana and IPALCO's FFO leverage averaged 4.1x and 5.9x respectively. In the next three years, incorporating a very large capex program, Fitch expects AES Indiana and IPALCO to produce FFO leverage, on average, of 4.1x and 5.6x from 2022 to 2024, respectively. These credit metrics are consistent with their respective ratings.

Parent Sub Linkage

There is parent subsidiary linkage between AES Indiana and IPALCO. Fitch determines IPALCO's standalone credit profile based upon consolidated metrics. Fitch believes AES Indiana's standalone credit profile is stronger. As such, Fitch has followed the weaker parent/stronger subsidiary path. Legal ring fencing for AES Indiana is considered porous given the general protections afforded by regulatory capital structure and other restrictions. Access and control are porous.

AES Indiana is wholy owned by IPALCO, but it issues its own short-term and long-term debt, and it does not guarantee the debt obligations at IPALCO. AES Indiana is not permitted to distribute upstream dividend under its credit agreement if total debt to total capitalization exceeds 67%. IPALCO's total debt is limited to $1.4 billion. Currently $875 million is outstanding. Due to these considerations, Fitch generally limits the IDR notching difference to two. We don't apply parent subsidiary linkage between AES and its investments. We consider AES a financial investor as it views its investments as nonrecourse.

DPL and AES Ohio

Pending Distribution Case is Key

The outcome of the pending distribution rate case will be key to DPL and AES Ohio's rating stability. In March 2022, PUCO staff recommended a distribution rate freeze for the duration of the ESP 1. If rates

are frozen, Fitch expects DPL's FFO leverage could potentially exceed the downgrade trigger without sufficient mitigating actions. An order is expected by year-end.

In November 2020, AES Ohio filed a distribution rate case requesting a $120.8 million electric distribution rate case increase on a 10.5% ROE and 53.87% equity layer. This rate case proposes to incorporates the DIR investments that were planned and approved in the last rate case but not yet included in distribution rates, other distribution investments since September 2015 and investments necessitated by the tornados in May 2019. The rate case also includes a proposal for increased tree-trimming expenses and certain customer demand-side management programs and recovery of prior-approved regulatory assets for tree trimming, uncollectible expenses and rate case expense.

Settlement on Smart Grid and SEET Favorable

On Oct. 23, 2020, AES Ohio entered into a settlement with the staff of the PUCO and various interveners regarding AES Ohio's applications for (i) approval of AES Ohio's Smart Grid Plan where AES Ohio can earn a return on and recovery of up to $249.0 million of Smart Grid Plan Phase 1 and recovery of operational and maintenance expenses through the existing Infrastructure Investment Rider (IIR) for four years, under an aggregate cap of $267.6 million on investments and expenses that is recoverable, and an acknowledgement that AES Ohio may file a subsequent application within three years seeking approvals for Phase 2, (ii) findings that AES Ohio passed the Significant Excessive Earnings Test (SEET) for 2018 and 2019, and (iii) findings that AES Ohio's current ESP 1 satisfies the SEET and the more favorable in the aggregate (MFA) regulatory test.

AES Ohio also is committed to file an application for ESP 4 no later than October 2023. All intervenors joined the settlement except for the OCC. In June 2021, the PUCO approved the stipulation as filed, which Fitch views favorably. AES made $150 million contribution in 2021 after the settlement was approved for AES Ohio to execute the capex plan. AES made a $150 million equity contribution in 2020.

Low Business Risk

DPL has transformed to a nearly 100% regulated T&D utility holding company since 2020. The transformation has meaningfully reduced operating risks as it eliminates exposure to competitive generation in a deregulated and stressed energy market in Ohio. The only generation exposure that AES Ohio has is the 4.9% equity interest in Ohio Valley Electric Corporation (OVEC), a wholesale power generator. AES Ohio can defer, recover or credit the net of proceeds from selling energy and capacity received as part of its investment in OVEC and its OVEC-related costs, effectively eliminating the risk associated with the power price fluctuation from the OVEC ownership.

Regulatory Uncertainties in Ohio

Historically Ohio's regulatory environment was constructive overall, and Fitch viewed the repeal of AES Ohio's DMR as an isolated event. However, a bribery scandal signals some uncertainties and could subject the PUCO to more scrutiny going forward. In 2020, Ohio Assembly Speaker Larry Householder, four associates and a nonprofit organization were charged and indicted in a criminal complaint associated with the passing of an energy bill House Bill (H.B.) 6. In November 2020, PUCO Chairman

Sam Randazzo (seated in 2019) resigned after the FBI searched his home following a disclosure by a utility that it paid a consulting company linked to Randazzo to end a six-year contract. In March 2021, Governor DeWine appointed Jennifer French as Chairperson of PUCO. Ms. French does not have utility experience, which is a moderate concern. Other commissioners remain the same.

Reasonable Regulatory Framework

Notwithstanding the unexpected termination of DMR and bribery scandal, many aspects of Ohio regulation are constructive. Utilities are allowed a partial forward test year, meaning that test year can conclude nine months after filing date. PUCO is authorized to approve CWIP recovery if the project is 75% complete. 75% of the rate cases in the past 10 years were settled. AES Ohio's September 2018 distribution rate case had a 9.999% ROE, modestly higher than sector average, in Fitch's view. However, the authorized equity capitalization ratio was 47.52%, below the industry average.

AES Ohio's transmission rate base (20% of the total rate case) is subject to supportive regulation by the Federal Energy Regulatory Commission (FERC). AES Ohio's authorized a return on equity is 9.85%. FERC rejected a 14 bps-ROE 'adder' as it stated that under Ohio law, AES Ohio must participate in the PJM. Therefore, an incentive adder is not warranted. AES Ohio's FERC transmission capex amounts to approximately $400 million over five years starting in 2021.

Credit Metrics Uncertain

Prior to the termination of the DMR, DPL's FFO leverage was improving. FFO leverage in 2019 was 5.5x compared with 7.3x in 2016. Loss of DMR combined with the impact from the pandemic and weather impaired FFO leverage in 2020 and 2021. During 2020 and 2021, DPL's FFO leverage averaged 8.7x. In 2022, due to delays in the distribution rate case, incremental debt for the capex and the accumulation of Ohio property tax, DPL's FFO leverage in 2022 could exceed 9x. If the distribution rate case outcome is reasonable, FFO leverage could improve to low 7x in 2023. If rates are frozen, FFO leverage could remain elevated in the 8x to 9x range depending on the mitigating actions. AES Ohio's FFO leverage will likely be in the 4x to 5x range.

Parent and Subsidiary Linkage

There is parent subsidiary linkage between DPL and AES Ohio. Fitch determines DPL's standalone credit profile based upon consolidated metrics. Fitch considers AES Ohio to have stronger credit profile on a standalone basis. As such, Fitch has followed the weaker parent/stronger subsidiary path. As regulated utilities and holding company, legal ring fencing for AES Ohio is considered porous given the general protections afforded by regulatory capital structure and other restrictions. Access and control are porous.

AES Ohio is fully owned by DPL, but AES Ohio issues its own short-term and long-term debt, and it does not guarantee the debt at DPL. Due to these considerations, Fitch generally limits the IDR notching difference to two. We don't apply parent subsidiary linkage between AES and its investments. We consider AES a financial investor as AES considers its investments as nonrecourse.

Derivation Summary

AES is a unique energy investment holding company that does not have peers that closely resemble it. AES' ratings and Outlook benefit from a large and diversified asset portfolio NextEra Energy Partners L.P. (NEP, BB+/Stable), TerraForm Power Operating LLC. (TERPO, BB-/Stable) and Brookfield Renewable Partners (BEP, BBB+/Stable). AES owns and operates approximately 31 GW of thermal and renewable generation assets, compared to Terraform Power Operating's (TERPO, BB-/Stable) 4 GW renewables, Nextera Energy Partners's (NEP, BB+/Stable) 4.8 GW of renewable generation and 4 Bcf of pipeline assets and Brookfield Renewable Partners' (BEP, BBB+/Stable) 21 GW renewable generation. AES' large operating scale and diversity partially compensate for its less favorable asset mix, shorter contract length and geopolitical risks compared with NEP, TERPO and BEP.

AES has a demonstrated history of stable aggregate distributions from projects. Aggressive debt reduction led to improving credit metrics in recent years. AES' recourse debt/APOCF will average approximately below 4x in the next three years, similar to BEP but stronger than that of NEP and TERPO. Unlike yieldcos such as NEP, TERPO and BEP, AES does not set aggressive growth targets, which Fitch views favorably. NEP's distribution growth target is 12% to 15%. BEP targets distribution growth of 5% to 11%. BEP and TERPO benefit from the sponsorship from Brookfield Asset Management, which provides robust capital access and liquidity. NEP benefits from its affiliation with NextEra Energy (A-/Stable), which is the largest renewable developer in the U.S. AES depends on its own internal cash flow and equity issuance for funding.

AES Indiana is about the same size in terms of operating EBITDA and has a similar fuel mix as Indiana Michigan Power (IMP, A-/Stable) and Northern Indiana Public Service Corp (NIPSCO, BBB/Stable). Similar to IMP and NIPSCO, AES Indiana benefits from a supportive regulatory and business environment in Indiana. However, Fitch considers NIPSCO's gas distribution operation superior to AES Indiana's and IMP's integrated electric-only operations. NIPSCO plans to exit coal generation by 2028. Pending the outcome of the next IRP, AES Indiana could exit coal by 2025.

AES Indiana's FFO leverage is expected to average 4.1x in the next three years, compared with IMP's projected 3.5x-4.0x. Although AES Indiana's credit metrics are strong for its ratings, it is upwardly constrained by IPALCO. NIPSCO's credit metrics are similar to those of AES Indiana, but Fitch assigns NIPSCO's rating based on the consolidated credit profile of its corporate parent NiSource Inc. (BBB/Stable).

IPALCO operates a single-state regulated and integrated utility, similar to Cleco Corp (BBB-/Stable) and Puget Energy (Puget, BBB-/Stable). IPALCO is also comparable with NiSource (BBB/Stable), which also operates an integrated electric utility in Indiana. IPALCO and NiSource both benefit from Indiana's supportive regulatory and business environment. However, IPALCO is less diversified, concentrating in integrated electric generation in Indiana, whereas NiSource operates both gas and electric regulated utilities in six states. Fitch projects that IPALCO's average FFO leverage in the next three years will be 5.6x due to a very large capex program, which is similar to Puget Energy and a bit weaker than Cleco Corp. NiSource's superbly low operating risks drive its one-notch IDR difference from IPALCO although their FFO leverage ratios are similar.

DPL is a nearly 100% regulated transmission and distribution (T&D) utility holding company after retiring and selling and closing its merchant operations. DPL operates a single-state regulated utility, similar to Cleco Corporate Holdings, LLC (Cleco; BBB-/Stable) and IPALCO Enterprises (IPALCO; BBB-/Stable). DPL's regulated T&D utility carries lower operating risks than Cleco's and IPALCO's utilities, which are exposed to coal generation. Cleco's newly acquired generating capacity in 2019 increased its footprint in the unregulated segment. Historically, Ohio has constructive regulation but the removal of DMR and the bribery scandal signal some unpredictability. Fitch expects DPL's FFO leverage is uncertain pending the outcome of the distribution rate case. Cleco Corp.'s FFO leverage could range from 5.0x to 5.5x, and IPALCO's FFO leverage could average 5.6x in the next three years.

As a regulated T&D operating in Ohio, AES Ohio is comparable with Ohio Power Co. (A-/Stable), Ohio Edison Co. (OE, BBB-/Positive), Toledo Edison Co. (TE, BBB-/Positive), and Cleveland Electric Illuminating Company (CEIC, BBB-/Positive). Similar to AES Ohio, OE, TE and CEIC's DMR were removed as a result of order from Ohio Supreme Court in 2019. The impact of the DMR removal is relatively more manageable for OE, TE and CEIC, as the DMR is a relatively small portion of their revenue and that the removal occurred near the end of the ESP period.

OE, TE and CEIC were negatively affected by the political scandal in Ohio involving its parent FirstEnergy Corp. (FE). In November 2021, Fitch revised OE, TE and CEIC's rating Outlooks to Positive due to rating linkage with corporate parent FirstEnergy Corp. and approval by the PUCO of FE's and its Ohio utility subsidiaries' unopposed settlement. Fitch estimates that AES Ohio's FFO leverage could range from 4x to 5x depending on the distribution rate case outcome. FFO leverage for OP, OE and TE are projected to be around 4.4x, 3.4x and 4.7x. AES Ohio's ratings are upwardly constrained by DPL, whereas its Ohio peers benefit from being part of large and diversified corporate families.

Key Assumptions

AES:

--$1 billion asset sales from 2022 to 2025;

--Issues hybrid securities in 2023 and 2024;

AES Indiana and IPALCO:

--Implement a seven-year TDSIC plan;

--$1.7 billion capex in total from 2022 to 2024.

DPL and AES Ohio:

--Total $850 million capex from 2022 to 2024;

--RSC from ESP 1 in place through 2024;

--Transmission and Smart Grid investments as approved.

RATING SENSITIVITIES

AES

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--Recourse debt/APOCF ratio sustains at or below 3.2x;

--Reducing operating risk by exiting coal generation, increasing long-term contracted earnings, and an increasing footprint in U.S.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--Cost overruns or extended delays of large construction projects causing reduced distribution from projects and recourse debt/APOCF ratio sustaining above 4.2x;

--Unexpected substantial re-contracting risk such that recourse debt/APOCF deteriorates to the level above on a sustained basis;

--Substantial cash tax payments resulting in recourse debt/APOCF breaching the guideline ratio for downgrade on a sustained basis;

--A change in corporate strategy to invest in more speculative, non-contracted assets or material decline in cash distributions from contracted power generation assets;

--Increase shareholder distributions (dividends or share buybacks) materially beyond Fitch's expectations;

--Acquisitions funded largely with recourse debt, causing the recourse debt/APOCF to breach the guideline ratio.

AES Indiana

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--Due to the two-notch differential between AES Indiana and IPALCO, AES Indiana is unlikely to be upgraded absent an upgrade at IPALCO.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--Negative regulatory development resulting in FFO Leverage rising above 4.7x on a sustained basis.

IPALCO

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--IPALCO could be upgraded if FFO Leverage is below 5.0x on a sustained basis.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--Negative regulatory treatment and/or aggressive upstream dividend causing FFO Leverage to rise above 6x on a sustained basis.

DPL

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--DPL's Outlook can be stabilized if the distribution rate case order is supportive;

--DPL can be upgraded if consolidated FFO leverage sustains below 7.3x.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--FFO leverage above 8.3x on a sustained basis;

--Unfavorable distribution rate case or rate freeze;

--If ring-fencing measures are proposed and strictly enforced, such that the dividend from AES Ohio will be materially reduced from current expectations, negative actions could occur;

--Deteriorating regulatory construct or successful challenges from stakeholders such as the OCC over approved rate plans in the future.

AES Ohio

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--If DPL's rating Outlook is stabilized;

--If strict ring-fencing measures are enforced such that upstream dividend will be reduced substantially from current expectations, positive rating action could occur.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--On a standalone basis, if AES Ohio's FFO leverage sustains above 6.3x;

--Unfavorable distribution rate case or rate freeze;

--Material and negative modifications of the smart grid settlement;

--Signs of further deterioration of regulatory construct;

--Successful challenges from intervenors against future rate orders.

Best/Worst Case Rating Scenario

International scale credit ratings of Non-Financial Corporate issuers have a best-case rating upgrade

scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of four notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit https://www.fitchratings.com/site/re/10111579.

Issuer Profile

AES is a large diversified holding company that owns and operates 31.459 GW of regulated utilities and power generation assets across four continents and 14 countries in 2021. AES is organized into four market-based strategic business units:

--U.S. and utilities (U.S., Puerto Rico and El Salvador);

--South America (Chile, Colombia, Argentina and Brazil);

--MCAC (Mexico, Central America and the Caribbean);

--Eurasia (Europe and Asia).

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg

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Rating Actions

ENTITY/DEBT	RATING			RECOVERY	PRIOR
IPALCO Enterprises, Inc.	LT IDR	BBB-	Affirmed		BBB-
• senior secured	LT	BBB	Affirmed		BBB
Indianapolis Power & Light Company	LT IDR	BBB+	Affirmed		BBB+
• preferred	LT	BBB	Affirmed		BBB
• senior secured	LT	A	Affirmed		A
• senior secured	ULT	A	Affirmed		A

ENTITY/DEBT	RATING			RECOVERY	PRIOR
The AES Corporation	LT IDR	BBB- ⊡	Affirmed		BBB- ⊡
• senior unsecured	LT	BBB-	Affirmed		BBB-
• senior secured	LT	BBB	Affirmed		BBB
The Dayton Power & Light Company	LT IDR	BBB- ⊖	Affirmed		BBB- ⊖
• senior secured	LT	BBB+	Affirmed	RR4	BBB+
DPL Inc.	LT IDR	BB ⊖	Affirmed		BB ⊖
• senior unsecured	LT	BB	Affirmed	RR4	BB
DPL Capital Trust II					
• junior subordinated	LT	BB-	Affirmed	RR5	BB-

RATINGS KEY	OUTLOOK	WATCH
POSITIVE	⊕	⬘
NEGATIVE	⊖	⬙

RATINGS KEY	OUTLOOK	WATCH
EVOLVING	⭘	◆
STABLE	⭘	

Applicable Criteria

Corporate Hybrids Treatment and Notching Criteria (pub.12 Nov 2020)

Corporate Rating Criteria (pub.15 Oct 2021) (including rating assumption sensitivity)

Corporates Recovery Ratings and Instrument Ratings Criteria (pub.09 Apr 2021) (including rating assumption sensitivity)

Parent and Subsidiary Linkage Rating Criteria (pub.01 Dec 2021)

Applicable Models

Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

Corporate Monitoring & Forecasting Model (COMFORT Model), v8.0.2 (1)

Additional Disclosures

Solicitation Status

Endorsement Status

DPL Capital Trust II	EU Endorsed, UK Endorsed
DPL Inc.	EU Endorsed, UK Endorsed
Indianapolis Power & Light Company	EU Endorsed, UK Endorsed
IPALCO Enterprises, Inc.	EU Endorsed, UK Endorsed
The AES Corporation	EU Endorsed, UK Endorsed

The Dayton Power & Light Company	EU Endorsed, UK Endorsed

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