

# IPL Combustion Turbines

Presented on March 8, 2021



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# Southwest Power Pool schedules all generation in the region to meet multiple needs:

- **Energy** – power generated to meet the forecasted and real-time load across the region
- **Congestion** – shifting generation to different geographic points to relieve congestion in the transmission grid
- **Spinning Reserve** – NERC required percentage of capacity in stand-by to meet sudden changes in demand
- **Regulation** – generation needed to maintain voltage and frequency control
- Independence CTs can be called upon for any of these reasons, at any level from minimum load to maximum output



# Combustion Turbine Capabilities

- Fast Start capability
- Quickly ramp output up/down
- Capable of running at very low load
- Dual Fuel capability
- On-system within the IPL footprint
- These attributes enabled the CTs to provide critical support throughout the recent weather event



# Replacement Criteria

- Capital Cost and Annual Operating Costs
- Projected Economic Life of unit
- Heat Rate
- Minimum load capability and Heat Rate at low load
- Capability for Extended Operation
- Dual Fuel/Green Fuel adaptability
- Warranty/Guarantee



# Next Steps

- Develop and issue an RFP for replacement generation
- Submit replacement project(s) for SPP evaluation
- Evaluate proposals and prepare a recommendation for Council Approval.
- Work with Finance to evaluate funding options



# Future Study Session

- Winter Storm Uri
- Impact on operation of Independence assets
- Financial impact
- Evaluation of contract obligations with Independence's energy partners



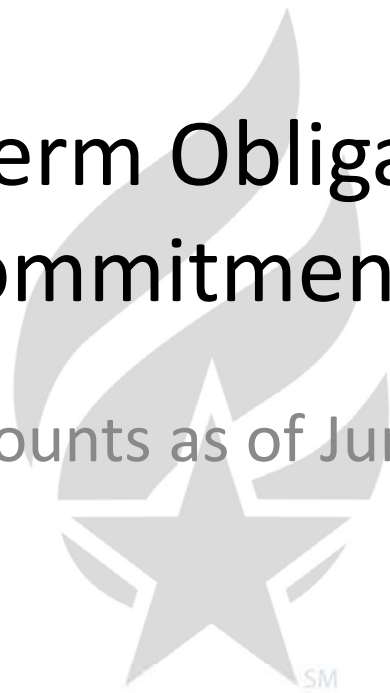
Questions ?



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# IPL Long-Term Obligations and Commitments

Audited amounts as of June 30, 2020



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# Long-Term Debt

## June 30, 2020\*

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Reductions</u>	<u>Ending Balance</u>	<u>Within One Year</u>
Business-type activities:					
Power and Light Fund:					
Revenue bonds	\$ 156,095,000	—	4,945,000	151,150,000	4,045,000
Premium on bonds payable	4,618,341	—	242,660	4,375,681	—
Total revenue bonds	160,713,341	—	5,187,660	155,525,681	4,045,000
Compensated absences	5,213,648	2,345,912	2,450,883	5,108,677	1,925,499
Total OPEB liability	43,114,684	3,237,676	—	46,352,360	—
Net pension liability	20,442,548	7,458,170	—	27,900,718	—
Total Power and Light Fund	229,484,221	13,041,758	7,638,543	234,887,436	5,970,499

\*Snip of Power and Light Fund portion of long-term debt of the Proprietary Funds in Footnote 7 Long-Term Obligations on page 63 of June 30, 2020 Audited Financial Statements in the City's Comprehensive Annual Financial Report (CAFR)

# Summary of Independence Electric Fund Debt

## June 30, 2020

Series of Debt	Original Par	Outstanding Par	Interest Rate	Maturities	Call Date
Power and Light, Series 2010B	33,645,000	10,615,000	2.00% - 5.250%	Through 2035	6/1/2020
Power and Light, Series 2012A	55,185,000	53,615,000	2.00% - 5.00%	Through 2037	6/1/2022
Power and Light, Series 2012F	52,525,000	39,740,000	3.00% - 4.00%	Through 2037	6/1/2022
Power and Light, Series 2016D	47,180,000	47,180,000	3.375% - 4.00%	Through 2046	6/1/2026
	<b>Total Power and</b>	<b>151,150,000</b>			

\*Series 2010B is scheduled to be Defeased (paid off) on March 15, 2021



Series of Debt	Purpose of Bonds\Summary of Projects	Original Par	Outstanding Par	Interest Rate	Maturities	Call Date
<b>Power and Light, Series 2010B</b>	Finance the costs of certain projects for the Electric System; Refund the City's Electric Utility Refunding Revenue Bonds, Series 1998; Fund a debt service reserve for the Bonds; Pay the costs of issuance of the Bonds	33,645,000	10,615,000	2.00% - 5.250%	Through 2035	6/1/2020
	Production: Repairs at Blue Valley and Missouri City plants: and the seven combustion turbine units including: boiler tube repair, turbine/generator inspection/repair, cooling tower replacement project, turbine operational safety project, power cabling replacement project, coal handling project. Transmission and Distribution: new 161 kilovolt transmission line and associated substation terminal project, replacement of 69 kilovolt underground transmission conductor, fiber optic data communication system, a new system operation backup facility, overhead to underground line conversion projects					
<b>Power and Light, Series 2012A</b>	Finance the acquisition of a 12.3% undivided interest in a combined cycle, natural gas-fired electrical generating facility rated at approximately 650 megawatts located in Pleasant Hill, MO (the "Dogwood Plant"); Fund debt service reserve for the Bonds; Pay capitalized interest on the Bonds; Refund the Refunded Bonds; Pay the costs of issuance of the Bonds	55,185,000	53,615,000	2.00% - 5.00%	Through 2037	6/1/2022
	<b>Production:</b> Acquisition by the City of a 12.3% undivided interest in the Dogwood Generating Facility, a combined cycle, natural gas-fired electrical generating facility rated at approximately 650 megawatts located in Pleasant Hill, Cass County, Missouri (the "Dogwood Plant").					
<b>Power and Light, Series 2012F</b>	Finance the costs of certain projects for the Electric System; Advance refund the Board's outstanding Infrastructure Facilities Leasehold Revenue Bonds Series 2009D; Fund a debt service reserve for the Bonds; Pay the costs of issuance of the Bonds	52,525,000	39,740,000	3.00% - 4.00%	Through 2037	6/1/2022
	<b>Production Projects.</b> turbine/generator inspection/repair, power cabling replacement project, air compressor project and other smaller miscellaneous projects at the Blue Valley generating facility and hot gas path inspection for the combustion turbines at Substations I and J. <b>Transmission and Distribution Projects.</b> new 69 kilovolt transmission line and associated substation terminal project, addition of substation capacitor banks, rebuild of an existing substation, facility conversion of the street lighting system to light emitting diode (LED) street lights, overhead to underground line conversion projects, and major distribution line projects. <b>Refunding of the Refunded Bonds</b> Series 2009D					
<b>Power and Light, Series 2016D</b>	Finance the costs of certain projects for the Electric System; Fund a debt service reserve for the Bonds; Pay the costs of issuance of the Bonds	47,180,000	47,180,000	3.375% - 4.00%	Through 2046	6/1/2026
	<b>Production Projects.</b> substation hot gas compressor inspection and upgrades, ash pond closures, boiler burner management system upgrade, generator hydrogen system upgrade, generator turbine inspection and repair, natural gas metering upgrades, combustion turbine CO2 modification and upgrades, and steam control inspection and repair. Additional expenses that may be funded will include engineering, permitting and similar costs related to evaluation of the decommissioning of the Missouri City power plant. <b>Transmission and Distribution Projects.</b> Substation facilities upgrades, switchgear and transformer replacements, a transmission line rebuild, fiber optic network communications upgrades and major distribution line projects. <b>General Administration Projects.</b> facility upgrades at the Service Center, renovation of the new Utility Services building, a new customer billing system and a new financial management system.					

\*Details of Debt found within each Series' Final Official Statement and can be located at the City's Investors' Relations site:  
<https://www.indepmbonds.com/independence-mo-investor-relations-mo/documents/downloads/i6071>



# A note about Bond Premium\*

- Premium on Outstanding Bonds \$4,375,681.
- When bonds were originally issued, the underwriter paid more proceeds to the City in order to buy bonds at a higher than market interest rate.
- This allows the underwriter to sell the debt easier and the City receives proceeds of funds upfront to use for projects.
- The amount paid over the par amount of debt is called a premium.
- The outstanding amount reflects the additional cost the City pays in higher interest rates for the additional proceeds received when the bond was originally issued.
- This amount is not an additional amount owed. Rather it is recorded to inform the readers of finance statements that the interest rate obligated was higher than market when issued.

\*This and additional discussion on Bond Premiums can be found in Footnote 1(j); Summary of Significant Accounting Policies, Bond Premiums/Discounts, and Issuance Costs on page 41 of the June 30, 2020 CAFR



# Compensated Absences

- Compensated Absences \$5,108,677
- IPL employees are granted vacation based upon length of service. Sick leave is granted at the rate of eight hours per month. Sick leave may be accumulated without limitation. Upon termination, compensation for accrued leave for City employees is paid up to the equivalent of six months' for sick leave, and a maximum of 400 hours for vacation at the employee's current rate of pay.\*

\*This and additional discussion on Compensated Absences found in Footnote 1(l); Summary of Significant Accounting Policies, Compensated absences on page 42 of the June 30, 2020 CAFR



# Retiree Health Insurance

## Other Post Employment Benefits other than Pensions (OPEB)

- Cost of IPL retiree health insurance \$46,352,360
- The City provides post-employment healthcare benefits to all retired employees meeting the service criteria for this benefit.
- The IPL has not established a trust to accumulate assets for this liability. This means the City's contribution Electric Utility Fund costs will fluctuate each year while this liability continues.
- City has no liability for Employees hired after July 1, 2018

\*This and additional discussion on Post-employment Health Benefits can be found in Footnote 10 Post-employment Health Benefits on pages 80-83 of the June 30, 2020 CAFR



# Net Pension Liability

- Net cost of future Electric Utility Fund retiree pension \$27,900,718
- The City's defined benefit pension plan provides certain retirement, disability and death benefits to plan members and beneficiaries. The City participates in the Missouri Local Government Employees Retirement System (LAGERS).
- The City's Electric Utility Fund contributes 18.3% of employee pay to LAGERS. Employee share is 4%.

\*This and additional discussion on Net Pension Liability can be found in Footnote 9 Employee Retirement System on pages 76-80 of the June 30, 2020 CAFR



# The City Electric Fund Commitments\*

The City purchases a portion of its power supply needs under seven long-term purchase agreements:

- Participation power agreement with Omaha Public Power District (OPPD)
- Participation power agreement with Missouri Joint Municipal Electric Utility Commission (MJMEUC)
- Renewable energy purchase agreement with Smoky Hills Wind Project II, LLC (Smoky Hills)
- Renewable energy purchase agreement with Marshall Wind Energy LLC (Marshall Wind),
- Two renewable energy purchase agreements with MCP-Independence LLC (MCP)
- Capacity agreement with Oneta Power, LLC.

\*This and additional discussion on the City's Electric Fund Commitments can be found in Footnote 12 Commitments and Contingencies (Purchase/Sales of Capacity and Energy on pages 85-87 of the June 30, 2020 CAFR





# IPL Commitments of Purchase/Sales of Capacity and Energy

ENTITY	PURPOSE	CAPACITY (megawatts)	TYPE	REMAINING CITY COMMITMENT			EXPIRES
				DEBT	CONTRACT	OTHER COSTS	
Omaha Public Power District	Participation power agreement	57	Coal-fired	125,200,000		Fixed operation and maintenance costs, variable operating costs, and renewals and replacements of the unit.	2049
Missouri Joint Municipal Electric Utility Commission	Power purchase agreement	53	Coal-fired	165,000,000		Fixed operation and maintenance costs, variable operating costs, renewals and replacements of the unit, and administrative costs	2038
Smoky Hills Wind Project II, LLC	Renewable energy purchase agreement	15	Wind farm	-	19,600,000	20 Year agreement where City purchases share of energy output and pay a flat fixed rate (2021 projection of \$2,800,000)	2028
Marshall Wind Energy LLC	Renewable energy purchase agreement	20	Wind farm		42,000,000	20 Year agreement where City purchases share of energy output and pay a flat fixed rate (2021 projection of \$2,800,000)	2036
MCP-Independence	Renewable energy purchase agreement	11.5	Solar farm		33,000,000	25-year agreement where City purchases all energy output and pay a flat fixed rate (2021 projection of \$1,500,000)	2043
Oneta Power	Capacity Only Power Purchase Agreement	46	Natural gas		9,720,000	10-year agreement for capacity only. City has the right to increase capacity up to a total of 70 MW. Contract has an Escalation Factor beginning in June 2021 (2020 cost \$1,215,000)	2029
Subtotal				290,200,000	104,320,000		
<b>TOTAL CITY COMMITMENT</b>				394,520,000			



Questions ?



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