Introduction

K.S.A. 2011 Supp. 66-1282 became effective July 1, 2011, and requires the Kansas Corporation Commission (KCC or Commission) to compile a report regarding electric supply and demand for all electric utilities in Kansas. The statute requires this report to include, but not be limited to: (1) Generation capacity needs and (2) system peak capacity needs and (3) renewable generation needs associated with the 2009 Kansas renewable energy standards.

To ensure that the KCC Staff has the information it needs to compile these reports, the KCC issued an Order on October 29, 2012, requiring Westar Energy, Kansas City Power & Light Company, Empire District Electric Company, Kansas Power Pool, Kansas Municipal Energy Agency, Kansas Electric Power Cooperatives, Midwest Energy, Sunflower Electric Power Corporation, Mid-Kansas Electric Company, and Kansas City Board of Public Utilities to file annually, the data required to compile this report with the Commission under Docket 13-GIME-256-CPL.

Contents

Section 1: Generation Capacity Needs and System Peak Capacity Planning

All major utilities[1] in Kansas are members of the Southwest Power Pool (SPP), which operates as the Regional Transmission Organization (RTO) throughout the State, as well as in the states of North Dakota, South Dakota, Nebraska, Oklahoma, and parts of Iowa, Missouri, Texas, Arkansas, Louisiana, Mississippi, and New Mexico. SPP additionally serves as the Regional Entity of the North American Electric Reliability Corporation (NERC), and is mandated by the Federal Energy Regulatory Commission (FERC) to ensure reliable operation of the electric grid within the region, including ensuring adequate power supplies and reserves are maintained by its members.

In furtherance of the FERC mandate, SPP publishes a series of regulations—called the SPP Criteria—governing the system operations of its members. SPP additionally requires its members to annually submit 10 year capacity and load projections to show how the utility will meet its ongoing system peak capacity responsibility (System Peak Responsibility), including the 12% reserve margin requirement outlined in the Criteria.[2] System Peak Responsibility may be satisfied by capacity from owned generation units, capacity purchased through long-term wholesale power contracts (often called Power Purchase Agreements (PPAs)), full or partial requirements contracts, and short-term capacity contracts.[3]

Table 1 (page three) shows the current and 20 year forecasted capacity and System Peak Responsibility (system peak load plus SPP's 12% required reserve margin) for utilities operating in Kansas. This includes smaller municipal and cooperatives utilities that purchase electricity wholesale from larger state utilities through full requirements contracts, wherein these municipal and cooperative utilities' peak loads are incorporated into the larger utility's system requirements. Finally, two of the State's investor-owned utilities Evergy Inc. (legacy Westar and KCP&L) and Liberty Utilities (legacy Empire District Electric Company), are multi-jurisdictional; therefore, the data shown in this report represents only their Kansas loads (peak demand) and their system capacity has been scaled to represent the capacity allocated to serving their Kansas load.

[1] Specifically, all utilities listed in this report are members of SPP.
[2] SPP Tariff Attachment AA defines Planning Reserve Margin to be twelve percent (12%) and that each utility maintain capacity required to meet its load and planning reserve obligations.
[3] Note Table 1.1 and the tables listed in Appendix A are intended to represent a utility's long-term position, and thus do not include short-term capacity contracts. Short-term capacity contracts are defined as a capacity contract greater than three months but less than a year in duration.

Table 1: Overview of Current and Projected Total System Capacity and System Capacity Responsibility for Utilities Operating in Kansas
*(Information designated as confidential by the company is show as an *)*

		Investor Owned Utilities (IOUs)			Cooperatives		Municipal Utilities			
		Liberty Utilities (legacy Empire)	Evergy Kansas Metro (legacy KCP&L)	Evergy Kansas Central (Legacy Westar)	Kansas Electric Power Coop. (KEPCo)	Midwest Energy (Midwest)	Sunflower Electric Power Corporation (Sunflower)	Kansas City Board of Public Utilities (KC-BPU)	Kansas Municipal Energy Agency (KMEA)	Kansas Power Pool (KPP)
2017 Historical	Total System Capacity (MW)	76	1,973	12,734	501	408	*	754	509	313
	System Peak Responsibility (MW)	63	1,846	5,816	485	364	*	561	479	249
	System Capacity Surplus (Deficit)	13	127	6,917	16	44	*	193	29	64
2022 Projected	Total System Capacity (MW)	70	*	*	462	422	*	599	458	314
	System Peak Responsibility (MW)	62	*	*	446	425	*	550	436	244
	System Capacity Surplus (Deficit)	8	*	*	16	(3)	*	49	22	69
2027 Projected	Total System Capacity (MW)	64	*	*	473	522	*	599	378	344
	System Peak Responsibility (MW)	64	*	*	456	458	*	558	454	251
	System Capacity Surplus (Deficit)	0	*	*	17	64	*	41	(76)	93
2032 Projected	Total System Capacity (MW)	63	*	*	479	508	*	599	378	332
	System Peak Responsibility (MW)	67	*	*	466	479	*	566	478	257
	System Capacity Surplus (Deficit)	(4)	*	*	13	29	*	33	(99)	74
2037 Projected	Total System Capacity (MW)	62	*	*	484	488	*	599	378	307
	System Peak Responsibility (MW)	69	*	*	476	489	*	574	502	264
	System Capacity Surplus (Deficit)	(7)	*	*	8	(1)	*	42	(124)	43

Section 2: Renewable Energy Planning

In May 2009, the Kansas Legislature passed Senate Substitute bill for H. 2369, in part creating the Renewable Energy Standard Act (RESA) which requires all non-municipal utilities in Kansas to satisfy a portion of the utility's generation needs through renewable generation sources. In particular, the RESA—incorporated into statute as K.S.A. 66-1256 through 66-1262—required all utilities subject to its requirements to own or purchase renewable generation such that the nameplate capacity[1] of these generators was equal to 10% of the utility's average prior three-year annual peak retail sales for the years 2011 through 2015, 15% for the years 2016 through 2019, and 20% for all years after 2020.

Effective January 1, 2016, the Renewable Energy Standard Act was amended and the requirement to own or purchase renewable generation became a voluntary initiative. While most of the affected utilities continue to invest in renewable generation, it is no longer a requirement under state law. Table 2 (page five) shows each RESA affected utility's forecasted renewable capacity and the percentage of the utility's capacity that is due to renewable generation.

[1]The KCC, through K.A.R. 82-16-1(e), has interpreted renewable generation capacity as being nameplate capacity.

Table 2: Overview of Voluntary Renewable Capacity for Utilities Operating in Kansas

*(Information designated as confidential by the company is show as an *)*

		Liberty Utilities (legacy Empire)	Evergy Kansas Metro (legacy KCP&L)	Evergy Kansas Central (Legacy Westar)	Kansas Electric Power Coop. (KEPCo)	Midwest Energy (Midwest)	Sunflower Electric Power Corporation (Sunflower)	Kansas City Board of Public Utilities (KC-BPU)	Kansas Municipal Energy Agency (KMEA)	Kansas Power Pool (KPP)
2017 Historical	Kansas System Renewable Capacity (MW)	12	464	1,699	139	120	*	305	27	53
	Total System Peak (MW)	56	1,648	5,242	427	364	*	754	509	313
	Renewable Capacity (% of Peak Capacity)	21%	28%	32%	33%	33%	*	40%	5%	17%
2022 Projected	Kansas System Renewable Capacity (MW)	39	*	*	161	109	*	305	3	53
	Total System Peak (MW)	55	*	*	393	374	*	599	458	314
	Renewable Capacity (% of Peak Capacity)	71%	*	*	41%	30%	*	51%	1%	19%
2027 Projected	Kansas System Renewable Capacity (MW)	15	*	*	161	109	*	305	3	46
	Total System Peak (MW)	57	*	*	401	403	*	599	378	344
	Renewable Capacity (% of Peak Capacity)	26%	*	*	40%	27%	*	51%	1%	15%
2032 Projected	Kansas System Renewable Capacity (MW)	9	*	*	161	60	*	305	3	33
	Total System Peak (MW)	59	*	*	410	422	*	599	378	332
	Renewable Capacity (% of Peak Capacity)	15%	*	*	39%	14%	*	51%	1%	11%
2037 Projected	Kansas System Renewable Capacity (MW)	29	*	*	161	3.1	*	280	3	8
	Total System Peak (MW)	61	*	*	419	430	*	599	378	307
	Renewable Capacity (% of Peak Capacity)	48%	*	*	38%	0.01%	*	47%	1%	3%

Appendix A: Utility System Capacities and Peak Responsibilities

Appendix A-1: Liberty Utilities (legacy Empire District Electric Company)

Liberty Utilities is a regulated investor-owned utility operating in the states of Kansas, Missouri, Arkansas, and Oklahoma. Only a very small portion of Liberty Utilities' overall service territory falls within Kansas, consisting of approximately 9,928 retail customers in Cherokee county (located in the extreme southeastern corner of the state).

		System Peak[1]				System Capacity[2]				
		Total System Peak Load	12% Capacity Margin[3]	**System Peak Responsibility**		Accredited Generation	Net Contracts	**Total System Capacity**		**System Capacity Surplus (Deficit)**
Historical	2015	**70**	8	**70**		66	4	71		**0**
	2016	**63**	8	**63**		72	4	76		**13**
	2017	**63**	8	**63**		72	4	76		**13**
	2018	**74**	9	**74**		72	4	76		**2**
	2019	**65**	8	**65**		70	4	76		**10**
Projected	2020	**65**	8	**65**		70	2	72		**6**
	2021	**62**	7	**62**		60	2	69		**7**
	2022	**62**	7	**62**		61	2	70		**7**
	2023	**63**	8	**63**		61	2	70		**7**
	2024	**63**	8	**63**		61	2	70		**7**
	2025	**64**	8	**64**		61	6	74		**11**
	2026	**64**	8	**64**		61	4	72		**8**
	2027	**64**	8	**64**		53	4	64		**0**
	2028	**65**	8	**65**		53	4	64		**(1)**
	2029	**65**	8	**65**		53	3	63		**(2)**
	2030	**66**	8	**66**		53	3	63		**(2)**
	2031	**66**	8	**66**		53	3	63		**(3)**
	2032	**67**	8	**67**		53	3	63		**(3)**
	2033	**67**	8	**67**		53	3	63		**(4)**
	2034	**67**	8	**67**		51	3	62		**(5)**
	2035	**68**	8	**68**		51	3	62		**(6)**
	2036	**68**	8	**68**		51	3	62		**(6)**
	2037	**69**	8	**69**		51	3	62		**(7)**
	2038	**69**	8	**69**		51	3	62		**(7)**
	2039	**70**	8	**70**		51	3	62		**(8)**

[1] Liberty Utilities' system peak is scaled in this table to reflect the Kansas portion of Liberty Utilities' service territory (demand created by customers).
[2] Liberty Utilities' system capacity is scaled in this table to reflect the Kansas portion of Liberty Utilities' service territory; approximately 5.2% of Empire's overall system peak.
[3] The formula for the SPP Required 12% Reserves changed in 2016. Prior to 2016, the 12% minimum reserve margin was based on reserve margin being calculated as (Capacity-Peak Demand)/CAPACITY. In 2016 SPP reduced the reserve margin requirement by modifying the calculation of reserve margin to (Capacity-Peak Demand/PEAK DEMAND.

Appendix A-2: Evergy Kansas Metro (legacy Kansas City Power & Light Company)

(Information designated as confidential by the company is show as an *)

In 2018, Kansas City Power and Light Company (KCP&L) merged with Westar Energy to form Evergy, Inc. As a wholly owned subsidiary of Evergy, Inc., Evergy Kansas Metro (EKM) operates in northeast Kansas and western Missouri. System-wide EKM, including its GMO territory, is responsible for serving more than 800,000 retail customers, approximately 250,000 of which are located in Kansas.

		System Peak[1]				System Capacity[2]				
		Total System Peak Load	12% Capacity Margin[3]	**System Peak Responsibility[4]**		Accredited Generation	Net Contracts	**Total System Capacity**		**System Capacity Surplus (Deficit)**
Historical	2015	**1,623**	195	**1,818**		**1,904**	21	**1,925**		**107**
	2016	**1,700**	204	**1,904**		**1,904**	(47)	**1,857**		**(47)**
	2017	**1,648**	198	**1,846**		**1,896**	77	**1,973**		**127**
	2018	**1,657**	199	**1,856**		**1,896**	112	**2,008**		**152**
	2019	**1,629**	195	**1,824**		**1,896**	33	**1,929**		**104**
Projected	2020	*	*	*		*	*	*		*
	2021	*	*	*		*	*	*		*
	2022	*	*	*		*	*	*		*
	2023	*	*	*		*	*	*		*
	2024	*	*	*		*	*	*		*
	2025	*	*	*		*	*	*		*
	2026	*	*	*		*	*	*		*
	2027	*	*	*		*	*	*		*
	2028	*	*	*		*	*	*		*
	2029	*	*	*		*	*	*		*
	2030	*	*	*		*	*	*		*
	2031	*	*	*		*	*	*		*
	2032	*	*	*		*	*	*		*
	2033	*	*	*		*	*	*		*
	2034	*	*	*		*	*	*		*
	2035	*	*	*		*	*	*		*
	2036	*	*	*		*	*	*		*
	2037	*	*	*		*	*	*		*
	2038	*	*	*		*	*	*		*
	2039	*	*	*		*	*	*		*

[1] Evergy's system peak is scaled in this table to reflect EKM's service territory (demand created by customers).
[2] Evergy's system capacity is scaled in this table to reflect EKM's service territory; approximately 47% of Evergy's overall system.
[3] The formula for the SPP Required 12% Reserves changed in 2016. Prior to 2016, the 12% minimum reserve margin was based on reserve margin being calculated as (Capacity-Peak Demand)/CAPACITY. In 2016 SPP reduced the reserve margin requirement by modifying the calculation of reserve margin to (Capacity-Peak Demand/PEAK DEMAND.
[4] The System Peak Responsibility is the sum of the Total System Peak Load plus the 12% Capacity Margin less any interruptible load not included in this table.

Appendix A-3: Evergy Kansas Central (legacy Westar Energy, Inc.)

(Information designated as confidential by the company is show as an *)

In 2018, Westar Energy, Inc. merged with Kansas City Power & Light to form Evergy, Inc. As a wholly owned subsidiary of Evergy, Inc., Evergy Kansas Central (EKC) operates in south-central and northeast Kansas. EKC is responsible for providing electric service to approximately 700,000 retail customers.

		System Peak			System Capacity			System Capacity Surplus (Deficit)
		Total System Peak Load	12% Capacity Margin[1]	System Peak Responsibility[2]	Accredited Generation	Net Contracts	Total System Capacity	
Historical	2015	**5,167**	614	**5,732**	**6,506**	6,66`1	**13,167**	**7,435**
	2016	**5,184**	616	**5,751**	**6,135**	6,459	**12,594**	**6,843**
	2017	**5,242**	623	**5,816**	**6,181**	6,553	**12,734**	**6,917**
	2018	**5,204**	595	**5,552**	**6,337**	7,204	**13,541**	**7,988**
	2019	**5,111**	585	**5,463**	**5,556**	6,654	**12,210**	**6,747**
Projected	2020	*	*	*	*	*	*	*
	2021	*	*	*	*	*	*	*
	2022	*	*	*	*	*	*	*
	2023	*	*	*	*	*	*	*
	2024	*	*	*	*	*	*	*
	2025	*	*	*	*	*	*	*
	2026	*	*	*	*	*	*	*
	2027	*	*	*	*	*	*	*
	2028	*	*	*	*	*	*	*
	2029	*	*	*	*	*	*	*
	2030	*	*	*	*	*	*	*
	2031	*	*	*	*	*	*	*
	2073	*	*	*	*	*	*	*
	2033	*	*	*	*	*	*	*
	2034	*	*	*	*	*	*	*
	2035	*	*	*	*	*	*	*
	2036	*	*	*	*	*	*	*
	2037	*	*	*	*	*	*	*
	2038	*	*	*	*	*	*	*
	2039	*	*	*	*	*	*	*

[1] The formula for the SPP Required 12% Reserves changed in 2016. Prior to 2016, the 12% minimum reserve margin was based on reserve margin being calculated as (Capacity-Peak Demand)/CAPACITY. In 2016 SPP reduced the reserve margin requirement by modifying the calculation of reserve margin to (Capacity-Peak Demand/PEAK DEMAND.

[2] The System Peak Responsibility is the sum of the Total System Peak Load plus the 12% Capacity Margin less any interruptible load not included in this table.

Appendix A-4: Kansas Electric Power Cooperative, Inc. (KEPCo)

(Information designated as confidential by the company is show as an *)

The Kansas Electric Power Cooperative, Inc. (KEPCo) is a deregulated Generation and Transmission Cooperative whose membership is composed of 18 rural distribution cooperatives located throughout central and eastern Kansas.[1] KEPCo's 18 member cooperatives collectively serve approximately 110,000 customers—as indicated by number of meters.

		System Peak			System Capacity			System Capacity Surplus (Deficit)
		Total System Peak Load	12% Capacity Margin[2]	Accredited Generation	Total System Capacity	Net Contracts	Total System Capacity	
Historical	2015	**432**	58	**491**	*	*	**508**	**17**
	2016	**425**	58	**483**	*	*	**494**	**11**
	2017	**427**	58	**485**	*	*	**501**	**16**
	2018	**414**	56	**470**	*	*	**484**	**14**
	2019	**418**	57	**475**	*	*	**492**	**17**
Projected	2020	**398**	54	**452**	*	*	**478**	**26**
	2021	**370**	50	**420**	*	*	**433**	**13**
	2022	**393**	54	**446**	*	*	**462**	**16**
	2023	**394**	54	**448**	*	*	**464**	**16**
	2024	**396**	54	**450**	*	*	**466**	**16**
	2025	**398**	54	**452**	*	*	**469**	**17**
	2026	**399**	54	**454**	*	*	**471**	**17**
	2027	**401**	55	**456**	*	*	**473**	**17**
	2028	**403**	55	**458**	*	*	**475**	**17**
	2029	**405**	55	**460**	*	*	**476**	**16**
	2030	**406**	55	**462**	*	*	**477**	**15**
	2031	**408**	56	**464**	*	*	**478**	**14**
	2032	**410**	56	**466**	*	*	**479**	**13**
	2033	**412**	56	**468**	*	*	**480**	**12**
	2034	**413**	56	**470**	*	*	**481**	**11**
	2035	**415**	57	**472**	*	*	**482**	**10**
	2036	**417**	57	**474**	*	*	**483**	**9**
	2037	**419**	57	**476**	*	*	**484**	**8**
	2038	**421**	57	**478**	*	*	**485**	**7**
	2039	**422**	58	**480**	*	*	**486**	**6**

[1] Member cooperatives of KEPCo are: Prairie Land, Rolling Hills, Bluestem, Brown-Atchison, FreeState, DS&O Electric, 4 Rivers, Victory, Ninnescah, Ark Valley, Sedgwick County, Butler, Heartland, Radiant, CMS Electric, Sumner-Cowley, Caney Valley, and Twin Valley.

[2] The formula for the SPP Required 12% Reserves changed in 2016. Prior to 2016, the 12% minimum reserve margin was based on reserve margin being calculated as (Capacity-Peak Demand)/CAPACITY. In 2016 SPP reduced the reserve margin requirement by modifying the calculation of reserve margin to (Capacity-Peak Demand/PEAK DEMAND.

Appendix A-5: Midwest Energy, Inc. (Midwest)

Midwest Energy Inc. (Midwest) is a regulated electric and natural gas distribution cooperative operating in central and western Kansas. Unique in Kansas among the State's cooperatives, the electric utility is vertically-integrated, possessing generation and transmission assets and providing retail service. Headquartered in Hays, Midwest provides electric service to approximately 48,750 retail customers.

THIS SECTION WAS INTENTIONALLY LEFT BLANK DUE TO
MIDWEST ENERGY'S REQUEST THAT THE INFORMATION REMAIN CONFIDENTIAL

Appendix A-6: Sunflower Electric Power Company (Sunflower)

Sunflower Electric Power Company (Sunflower) is a deregulated generation and transmission cooperative owned by six member rural distribution cooperatives in Western Kansas (Lane-Scott, Prairie Land, Southern Pioneer, Victory, Western, and Wheatland) In 2007, the six member distribution cooperatives comprising Sunflower formed the Mid-Kansas Electric Company (Mid-Kansas). Although Mid-Kansas has distinct assets and distinct customers from Sunflower, the two companies employ the same individuals; and therefore, for the purposes of this report these two entities are combined as a single system.

THIS SECTION WAS INTENTIONALLY LEFT BLANK DUE TO
SUNFLOWER ELECTRIC POWER COMPANY'S REQUEST THAT THE INFORMATION REMAIN CONFIDENTIAL

Appendix A-7: Kansas City Board of Public Utilities (KC-BPU)

The Kansas City Board of Public Utilities (KC-BPU) is a non-KCC jurisdictional municipal utility serving water customers in the Kansas City, Kansas Metropolitan areas of Wyandotte and Johnson Counties, and electric customers in the whole of Wyandotte County. In all, KC-BPU provides electric service to approximately 63,000 customers.

		System Peak			System Capacity			System Capacity Surplus (Deficit)
		Total System Peak Load	12% Capacity Margin[1]	System Peak Responsibility[2]	Accredited Generation	Net Contracts	Total System Capacity	
Historical	2015	**485**	66	**551**	**713**	56	**769**	**218**
	2016	**480**	65	**545**	**675**	56	**730**	**185**
	2017	**494**	67	**561**	**662**	92	**754**	**193**
	2018	**496**	68	**564**	**662**	92	**754**	**190**
	2019	**483**	66	**549**	**676**	92	**767**	**218**
Projected	2020	**443**	60	**503**	**526**	92	**618**	**115**
	2021	**485**	66	**551**	**507**	92	**599**	**48**
	2022	**484**	66	**550**	**507**	92	**599**	**49**
	2023	**486**	66	**552**	**507**	92	**599**	**47**
	2024	**488**	67	**555**	**507**	92	**599**	**44**
	2025	**487**	66	**553**	**507**	92	**599**	**46**
	2026	**489**	67	**556**	**507**	92	**599**	**43**
	2027	**491**	67	**558**	**507**	92	**599**	**41**
	2028	**493**	67	**560**	**507**	92	**599**	**39**
	2029	**492**	67	**559**	**507**	92	**599**	**40**
	2030	**494**	67	**561**	**507**	92	**599**	**38**
	2031	**496**	68	**566**	**507**	92	**599**	**33**
	2032	**498**	68	**566**	**507**	92	**599**	**33**
	2033	**500**	68	**568**	**507**	92	**599**	**31**
	2034	**599**	68	**567**	**507**	92	**599**	**32**
	2035	**501**	68	**569**	**507**	92	**599**	**30**
	2036	**503**	69	**572**	**507**	92	**599**	**27**
	2037	**505**	69	**574**	**507**	92	**599**	**25**
	2038	**501**	69	**573**	**507**	92	**599**	**26**
	2039	**506**	69	**575**	**507**	92	**599**	**24**

[1] The formula for the SPP Required 12% Reserves changed in 2016. Prior to 2016, the 12% minimum reserve margin was based on reserve margin being calculated as (Capacity-Peak Demand)/CAPACITY. In 2016 SPP reduced the reserve margin requirement by modifying the calculation of reserve margin to (Capacity-Peak Demand/PEAK DEMAND.
[2] The System Peak Responsibility is the sum of the Total System Peak Load plus the 12% Capacity Margin less any interruptible load not included in this table.

Appendix A-8: Kansas Municipal Energy Agency (KMEA)

The Kansas Municipal Energy Agency (KMEA) is an organization that finances projects for the purchase, sale, generation, and transmission of electricity on behalf of its 77 member municipal electric utilities. In addition to these functions, KMEA also manages the Mutual Aid Program where municipalities assist one another in the event of emergencies that affect the electric system, conducts power supply and transmission feasibility studies, and advocates members' positions before industry bodies, regulatory agencies and legislative bodies.

		System Peak			System Capacity			System Capacity Surplus (Deficit)
		Total System Peak Load	12% Capacity Margin[1]	System Peak Responsibility[2]	Accredited Generation	Net Contracts	Total System Capacity	
Historical	2015	**375**	51	**426**	**292**	227	**519**	**93**
	2016	**399**	54	**454**	**302**	205	**507**	**53**
	2017	**422**	58	**479**	**304**	205	**509**	**29**
	2018	**397**	54	**451**	**304**	190	**494**	**42**
	2019	**385**	53	**438**	**304**	193	**497**	**59**
Projected	2020	**362**	49	**412**	**304**	193	**497**	**85**
	2021	**380**	52	**432**	**292**	166	**458**	**26**
	2022	**384**	52	**436**	**292**	166	**458**	**22**
	2023	**387**	53	**440**	**292**	166	**458**	**19**
	2024	**390**	53	**443**	**292**	166	**458**	**15**
	2025	**393**	54	**447**	**292**	166	**458**	**11**
	2026	**397**	54	**451**	**292**	86	**378**	**(73)**
	2027	**400**	55	**454**	**292**	86	**378**	**(76)**
	2028	**403**	55	**458**	**292**	86	**378**	**(80)**
	2029	**407**	55	**462**	**292**	86	**378**	**(84)**
	2030	**410**	56	**466**	**292**	86	**378**	**(88)**
	2031	**418**	57	**475**	**292**	86	**378**	**(97)**
	2032	**420**	57	**478**	**292**	86	**378**	**(99)**
	2033	**425**	58	**482**	**292**	86	**378**	**(104)**
	2034	**429**	58	**487**	**292**	86	**378**	**(109)**
	2035	**433**	59	**492**	**292**	86	**378**	**(114)**
	2036	**437**	60	**497**	**292**	86	**378**	**(119)**
	2037	**442**	60	**502**	**292**	86	**378**	**(124)**
	2038	**446**	61	**507**	**292**	86	**378**	**(129)**
	2039	**450**	61	**511**	**292**	86	**378**	**(133)**

[1] The formula for the SPP Required 12% Reserves changed in 2016. Prior to 2016, the 12% minimum reserve margin was based on reserve margin being calculated as (Capacity-Peak Demand)/CAPACITY. In 2016 SPP reduced the reserve margin requirement by modifying the calculation of reserve margin to (Capacity-Peak Demand/PEAK DEMAND.

[2] The System Peak Responsibility is the sum of the Total System Peak Load plus the 12% Capacity Margin less any interruptible load not included in this table.

Appendix A-9: Kansas Power Pool (KPP)

The Kansas Power Pool (KPP), created in May of 2005, is an organization that provides wholesale electric power, reserve sharing, collective resource planning and acquisition, network transmission service, and cost sharing of operations to its member municipal utilities. The KPP has continuously added new municipal electric utilities since its founding. Because of this, historical comparisons to previous years are inherently misleading and have been omitted from this report. KPP is comprised of 41 municipally-owned retail electric systems and is responsible for a total system capacity of approximately 586 MWs.

		System Peak			System Capacity			System Capacity Surplus (Deficit)
		Total System Peak Load	12% Capacity Margin[1]	System Peak Responsibility[2]	Accredited Generation	Net Contracts	Total System Capacity	
Historical	2015	**211**	29	**240**	**267**	95	**362**	**121**
	2016	**216**	29	**246**	**248**	95	**343**	**97**
	2017	**219**	30	**249**	**268**	45	**313**	**64**
	2018	**214**	29	**243**	**268**	45	**313**	**70**
	2019	**210**	29	**239**	**268**	70	**338**	**99**
Projected	2020	**215**	29	**244**	**268**	70	**338**	**93**
	2021	**214**	29	**244**	**269**	70	**339**	**95**
	2022	**215**	29	**244**	**269**	45	**314**	**69**
	2023	**217**	30	**246**	**324**	36	**360**	**113**
	2024	**218**	30	**247**	**324**	36	**360**	**112**
	2025	**219**	30	**249**	**324**	36	**360**	**111**
	2026	**220**	30	**250**	**324**	21	**344**	**94**
	2027	**221**	30	**251**	**324**	21	**344**	**93**
	2028	**222**	30	**252**	**324**	21	**344**	**92**
	2029	**223**	30	**254**	**324**	21	**344**	**91**
	2030	**224**	31	**255**	**324**	8	**332**	**77**
	2031	**225**	31	**256**	**324**	8	**332**	**76**
	2032	**227**	31	**257**	**324**	8	**332**	**74**
	2033	**228**	31	**259**	**324**	8	**332**	**73**
	2034	**229**	31	**260**	**324**	8	**332**	**72**
	2035	**230**	31	**261**	**324**	8	**332**	**71**
	2036	**231**	32	**263**	**299**	8	**307**	**44**
	2037	**232**	32	**264**	**299**	8	**307**	**43**
	2038	**233**	32	**265**	**299**	8	**307**	**42**
	2039	**235**	32	**267**	**299**	8	**307**	**40**

[1] The formula for the SPP Required 12% Reserves changed in 2016. Prior to 2016, the 12% minimum reserve margin was based on reserve margin being calculated as (Capacity-Peak Demand)/CAPACITY. In 2016 SPP reduced the reserve margin requirement by modifying the calculation of reserve margin to (Capacity-Peak Demand/PEAK DEMAND.
[2] The System Peak Responsibility is the sum of the Total System Peak Load plus the 12% Capacity Margin less any interruptible load not included in this table.

Appendix B: Renewable Capacity Requirements
Appendix B-1: Liberty Utilities (legacy Empire District Electric Company)

Liberty Utilities currently has two long-term power purchase agreements with two wind farms operating in Kansas. Liberty Utilities also operates a hydro-electric dam in Missouri. Liberty Utilities is a multi-jurisdictional utility operating in the states of Missouri, Kansas, Arkansas, and Oklahoma. Empire currently satisfies an RES in Missouri.

	Renewable Capacity		Renewable Capacity Inventory		Renewable Capacity Required for Other Jurisdictions	Total Renewable Capacity
	Renewable Energy Standard	Kansas Renewable Capacity	Wind	Hydro		
2015	10%	15	13	1	3	12
2016		15	13	1	3	12
2017		15	13	1	3	12
2018	15%	15	13	1	7	9
2019		15	13	1	6	9
2020		15	13	1	6	9
2021		48	13	1	8	41
2022		48	13	1	8	41
2023		51	13	1	29	22
2024		51	13	1	29	22
2025		51	13	1	29	16
2026		42	5	1	29	15
2027		45	5	1	29	15
2028		45	5	1	29	15
2029		39		1	30	9
2030		39		1	30	9
2031		30		1	30	9
2032		30		1	30	9
2033		30		1	30	8
2034		29		1	9	29
2035		29			9	29
2036		29			9	29
2037		29			9	29
2038		29			9	29
2039		29			9	29

Appendix B-2: Evergy Kansas Metro

*(Information designated as confidential by the company is show as an *)*

	Renewable Capacity		Renewable Capacity Inventory		Renewable Capacity Required for Other Jurisdictions	Total Renewable Capacity
	Renewable Energy Standard	**Kansas Renewable Capacity**	Wind	Hydro		
2015		**241**	181	60	0	**241**
2016	**10%**	**407**	347	60	0	**407**
2017		**464**	404	60	0	**524**
2018	**15%**	**549**	489	60	0	**609**
2019		**602**	542	60	0	**662**
2020		**644**	584	60	0	**704**
2021		**692**	632	60	0	**752**
2022		*	*	*	*	*
2023		*	*	*	*	*
2024		*	*	*	*	*
2025		*	*	*	*	*
2026		*	*	*	*	*
2027		*	*	*	*	*
2028		*	*	*	*	*
2029		*	*	*	*	*
2030		*	*	*	*	*
2031		*	*	*	*	*
2032		*	*	*	*	*
2033		*	*	*	*	*
2034		*	*	*	*	*
2035		*	*	*	*	*
2036		*	*	*	*	*
2037		*	*	*	*	*
2038		*	*	*	*	*
2039		*	*	*	*	*

Appendix B-3: Evergy Kansas Central

(Information designated as confidential by the company is show as an *)

Evergy Kansas Central currently partially or wholly owns 15 wind farms located throughout Kansas. Evergy Kansas Central additionally has long-term power purchase agreement with Ironwood, Post Rock, Kingman, Cedar Bluff, Ninnescah, and Meridian Way wind farms. In addition to wind and biomass renewables, the utility also has a community solar project.

	Renewable Capacity		Renewable Capacity Inventory			Total Renewable Capacity
	Renewable Energy Standard	**Kansas Renewable Capacity**	Wind	Solar	Other	
2015	**10%**	**670**	664	0	6	**670**
2016		**1,069**	1,063	0	6	**1,069**
2017		**1,699**	1,692	1	6	**1,699**
2018	**15%**	**1,700**	1,692	2	6	**1,700**
2019		**1,700**	1,692	2	6	**1,700**
2020		**1,700**	1,692	2	6	**1,700**
2021		**2,226**	2,218	2	6	**2,226**
2022		*	*	*	*	*
2023		*	*	*	*	*
2024		*	*	*	*	*
2025		*	*	*	*	*
2026		*	*	*	*	*
2027		*	*	*	*	*
2028		*	*	*	*	*
2029		*	*	*	*	*
2030		*	*	*	*	*
2031		*	*	*	*	*
2032		*	*	*	*	*
2033		*	*	*	*	*
2034		*	*	*	*	*
2035		*	*	*	*	*
2036		*	*	*	*	*
2037		*	*	*	*	*
2038		*	*	*	*	*

Appendix B-4: Kansas Electric Power Cooperative, Inc. (KEPCo)

Kansas Electric Power Cooperative, Inc. (KEPCo), a federally defined rural non-profit utility, has received discounted power allocations from federally managed hydro-electric power marketers since the utility's inception. Western Area Power Administration is likewise, a series of 56 hydro-electric dams operated by the Bureau of Reclamation, U.S. Army Corps of Engineers, and International Boundary and Water Commission in a 15-state region.

THIS SECTION WAS INTENTIONALLY LEFT BLANK DUE TO
KANSAS ELECTRIC POWER COOPERATIVE'S REQUEST THAT THE INFORMATION REMAIN CONFIDENTIAL

Appendix B-5: Midwest Energy (Midwest)

THIS SECTION WAS INTENTIONALLY LEFT BLANK DUE TO
MIDWEST ENERGY'S REQUEST THAT THE INFORMATION REMAIN CONFIDENTIAL

Appendix B-6: Sunflower Electric Power Company (Sunflower)

Sunflower Electric Power Company (Sunflower) and the Mid-Kansas Electric Company (Mid-Kansas) currently have long-term power purchase agreements with four wind farms in Kansas and Johnson County Solar Project. As federally defined non-profit rural utilities, Sunflower also receives electricity from the federally managed hydro-electric power marketer.

THIS SECTION WAS INTENTIONALLY LEFT BLANK DUE TO
SUNFLOWER ELECTRIC POWER COMPANY'S REQUEST THAT THE INFORMATION REMAIN CONFIDENTIAL

Appendix B-7: Kansas City Board of Public Utilities (KC-BPU)

Kansas City Board of Public Utilities currently has long-term power purchase agreements with wind farms, as well as federally managed hydro-electric power marketers. The Company also has agreements for biomass and additional hydro.

	Renewable Capacity		Renewable Capacity Inventory				Total Renewable Capacity
	Renewable Energy Standard	Kansas Renewable Capacity	Wind	Hydro	Solar	Biomass	
2015	**10%**	**104**	50	50	0	4	**104**
2016		**104**	50	50	0	4	**104**
2017		**305**	250	50	1	4	**305**
2018	**15%**	**305**	250	50	1	4	**305**
2019		**305**	250	50	1	4	**305**
2020		**305**	250	50	1	4	**305**
2021		**305**	250	50	1	4	**305**
2022		**305**	250	50	1	4	**305**
2023		**305**	250	50	1	4	**305**
2024		**305**	250	50	1	4	**305**
2025		**305**	250	50	1	4	**305**
2026		**305**	250	50	1	4	**305**
2027		**305**	250	50	1	4	**305**
2028		**305**	250	50	1	4	**305**
2029		**305**	250	50	1	4	**305**
2030		**305**	250	50	1	4	**305**
2031		**305**	250	50	1	4	**305**
2032		**305**	250	50	1	4	**305**
2033		**305**	250	50	1	4	**305**
2034		**305**	250	50	1	4	**305**
2035		**305**	250	50	1	4	**305**
2036		**280**	225	50	1	4	**280**
2037		**280**	225	50	1	4	**280**
2038		**280**	225	50	1	4	**280**
2039		**280**	225	50	1	4	**280**

Appendix B-8: Kansas Municipal Energy Agency (KMEA)

	Renewable Capacity		Renewable Capacity Inventory	Total Renewable Capacity
	Renewable Energy Standard	Kansas Renewable Capacity	Wind	
2015	10%	52	52	52
2016		37	37	37
2017		27	27	27
2018	15%	27	27	27
2019		29	29	29
2020		30	30	30
2021		3	3	3
2022		3	3	3
2023		3	3	3
2024		3	3	3
2025		3	3	3
2026		3	3	3
2027		3	3	3
2028		3	3	3
2029		3	3	3
2030		3	3	3
2031		3	3	3
2032		3	3	3
2033		3	3	3
2034		3	3	3
2035		3	3	3
2036		3	3	3
2037		3	3	3
2038		1	1	1
2039		1	1	1

Appendix B-9: Kansas Power Pool (KPP)

	Renewable Capacity		Renewable Capacity Inventory		Renewable Capacity Surplus
	Renewable Energy Standard	Kansas Renewable Capacity	Wind	Hydro	
2015	10%	28	15	10	23
2016		53	40	10	48
2017		53	40	10	48
2018	15%	53	40	10	48
2019		53	40	10	48
2020		53	40	10	48
2021		53	40	10	48
2022		53	40	10	48
2023		53	40	10	48
2024		53	40	10	48
2025		53	40	10	48
2026		46	38	8	43
2027		46	38	8	43
2028		46	38	8	43
2029		46	38	8	43
2030		33	25	8	31
2031		33	25	8	31
2032		33	25	8	31
2033		33	25	8	31
2034		33	25	8	31
2035		33	25	8	31
2036		8	0	8	6
2037		8	0	8	6
2038		8	0	8	6
2039		8	0	8	6

Appendix C: Commercial-Size Renewable Energy Generation[1]
Appendix C-1: Existing Renewable Generators within Kansas[2]

Renewable Generator (Total Nameplate Capacity)	County	Developer	Initial Month and Year of Operation	Utility Purchaser	Size
Prairie Queen Wind Farm (200 MW)	Allen	EDP Renewables	May 2019	KCP&L	200 MW
East Kansas Agri-Energy (2 MW)	Anderson	East Kansas Agri-Energy	June 2005	-------	2 MW
Flat Ridge Wind Farm (100 MW)	Barber	BP Alternative Energy	March 2009	Westar Energy	100 MW
Elk River Wind Facility (150 MW)	Butler	PPM Energy (Ibedrola SA)	December 2005	Empire District Electric	150 MW
Prairie Sky Solar Farm (1 MW)	Butler	Kansas Electric Power Coop Inc.	February 2017	Kansas Electric Power Coop Inc.	1 MW
Bloom Wind (178 MW)	Clark and Ford	Norvento	June 2017	Capital Power (IPP)	178 MW
Cimarron Bend Wind Project I (200 MW)	Clark	Tradewind Energy for Enel Green Power North America (EGPNA)	December 2016	Kansas City Board of Public Utilities	100 MW
				Google	100 MW
Cimarron Bend Wind Project II (200 MW)	Clark	Tradewind Energy for Enel Green Power North America (EGPNA)	March 2017	Kansas City Board of Public Utilities	100 MW
				Google	100 MW
Cloud County (Meridian Way) Wind Farm (201 MW)	Cloud	Horizon Wind Energy	November 2008	Empire District Electric	105 MW
				Westar Energy	96 MW
Meridan Way I Wind Farm (105 MW)	Cloud	EDP Renewables North America LLC	December 2008	Empire District Electric Co.	105 MW
Meridan Way II Wind Farm (96 MW)	Cloud	EDP Renewables North America LLC	December 2008	Westar Energy Inc.	96 MW
Waverly Wind (199.5 MW)	Coffey	EDP Renewables	2016	KCP&L	199.5 MW
Oak Grove Landfill (1.6 MW)	Crawford	Waste Corporation of Kansas	March 2010	Kansas City Board of Public Utilities	1.6 MW
Diamond Vista (300 MW)	Dickenson and Marion	Enel Green Power North America	December 2018	Kohler, City of Springfield, Tri-County Electric Coop	300 MW
Bowersock Hydro-electric Dam (7.1 MW)	Douglas	Kansas River Hydro Project	1922/2012	Kansas City Board of Public Utilities	7.1 MW
Caney River (200 MW)	Elk	Trade Wind Energy	December 2011	Tennessee Valley Authority	200 MW
Buckeye Wind Energy	Ellis	Invenergy, LLC	December 2015	-------	200 MW

[1] Based on Energy Information Administration Reports 923 and 860, dated July 2020.
[2] Based on information in footnote 1 and Kansas Corporation Commission Docket filings.

Appendix C-1: Existing Renewable Generators within Kansas

Renewable Generator (Total Nameplate Capacity)	County	Developer	Initial Month and Year of Operation	Utility Purchaser	Size
(200 MW)					
Fort Hays State University Wind Farm I (2 MW)	Ellis	Harvest the Wind Network, LLC	November 2013		2 MW
Fort Hays State University Wind Farm II (2 MW)	Ellis	Harvest the Wind Network, LLC	November 2013		2 MW
Post Rock (201 MW)	Ellsworth and Lincoln	Wind Capital Group	November 2012	Westar	201 MW
Smoky Hills Phase 1 (100.8 MW)	Ellsworth and Lincoln	Trade Wind Energy	January 2008	Sunflower Electric	50.4 MW
				Kansas City Board of Public Utilities	25.2 MW
				Midwest Energy	25.2 MW
Smoky Hills Phase 2 (148.5 MW)	Ellsworth and Lincoln	Trade Wind Energy	January 2009	Sunflower Electric (allocated to MKEC system)	24 MW
				Midwest Energy	24 MW
				City Power and Light (Independence, Mo.)	15 MW
				City Utilities of Springfield, Mo.	50 MW
				Unallocated (SPP EIM)[1]	35.5 MW
Spearville Wind Energy Facility Phase I (100.5 MW)	Ford	enXco (EDF Renewable Energy)	August 2006	Kansas City Power and Light	100.5 MW
Spearville Wind Energy Facility Phase II (48 MW)	Ford	enXco (EDF Renewable Energy)	December 2010	Kansas City Power and Light	48 MW
Spearville Wind Energy Facility Phase III (101 MW)	Ford	enXco (EDF Renewable Energy)	October 2012	Kansas City Power and Light	101 MW
Western Plains Wind Farm (280 MW)	Ford	Infinity Wind	March 2017	Evergy	280 MW
Ironwood (168 MW)	Ford and Hodgeman	Duke Energy Generation Services	October 2012	Westar	168 MW
Buffalo Dunes (250 MW)	Grant and Haskell	Trade Wind Energy	December 2013	Enel Green Power	187 MW
				Alabama Power Company	63 MW
Cimarron Energy Project (Cimarron I) (165 MW)	Gray	CPV Renewable Energy	November 2012	Tennessee Valley Authority	165 MW
Cimarron Energy Project (Cimarron II) (131 MW)	Gray	Duke Energy Generation Services	June 2012	Kansas City Power & Light	131 MW
Ensign Wind Energy (99 MW)	Gray	NextEra Energy Resources	November 2012	Kansas City Power and Light – Greater Missouri Operations	99 MW
Gray County Wind Farm (112.2 MW)	Gray	NextEra (Florida Power & Light)	November 2001	Sunflower Electric (allocated to MKEC system)	51 MW
				Kansas City Power and Light – Greater Missouri Operations	60 MW

[1] Unallocated wind energy can be sold through the Southwest Power Pool's Energy Imbalance Market place.

Appendix C-1: Existing Renewable Generators within Kansas

Renewable Generator (Total Nameplate Capacity)	County	Developer	Initial Month and Year of Operation	Utility Purchaser	Size
				Unallocated	1 MW
Flat Ridge 2 Wind Farm (470.2 MW)	Harper, Kingman, Barber, and Sumner	BP Alternative Energy	December 2012	Associated Electric Cooperative	310.4 MW
				Arkansas Electric Coop Corp	51.2 MW
				Southwestern Electric Power Company	108.8 MW
Flat Ridge III	Kingman				128 MW
Kingman Wind Energy I (200 MW)	Kingman	NextEra Energy Resources, LLC	December 2016	Westar Energy Inc.	200 MW
Shooting Star (105 MW)	Kiowa	Infinity Wind Power	September 2012	Sunflower	105 MW
Greensburg (12.5 MW)	Kiowa	John Deere / Exelon	March 2010	Kansas Power Pool	12.5 MW
Reading Wind Farm (200 MW)	Lyon Osage	Southern Power	June 2020	Royal Caribbean	200 MW
Marshall Energy (74 MW)	Marshall	RPM Access	May 2016	Missouri Joint Municipal Electric Utility Commission	74 MW
Marshall Wind Farm (72 MW)	Marshall	BHE Renewables, LLC	May 2016	Kansas Municipal Energy Agency	7 MW
				Missouri Joint Municipal Electric Utility Commission	20 MW
				Kansas Power Pool	25 MW
				City of Independence, MO	20 MW
Neosho Ridge Wind Farm	Neosho	Apex Clean Energy	October 2020	Liberty Utilities	301 MW
Cedar Bluff Wind Farm (200 MW)	Ness	NextEra Energy Resources	December 2015	Westar Energy, Inc.	200 MW
Ninnescah Wind Energy (208 MW)	Pratt	NextEra Energy Resources, LLC	December 2016	Westar Energy Inc.	208 MW
Pratt Wind Energy Center (244 MW)	Pratt	NextEra Energy Resources, LLC	December 2018	Evergy	244 MW
Pretty Prairie Wind Farm (220 MW)	Reno		2019	Iron Mountain	220 MW
Westar Community Solar (1.2 MW)	Reno	SoCore Energy	July 2017	Westar Energy Inc.	1.2 MW
Alexander Wind Farm (50 MW)	Rush	New Jersey Resources Corp.	October 2015	Kansas City Board of Public Utilities & Yahoo! Inc.	48.3 MW
Rolling Meadows Landfill (5.6 MW)	Shawnee	Waste Management	January 2010	Westar Energy	5.6 MW
Johnson Corner Solar Project (20 MW)	Stanton	Lightsource BP	December 2019	Mid-Kansas Electric Company, Inc., Sunflower Electric Power Corporation, lightsourcebp, National Renewables Coop.	20 MW

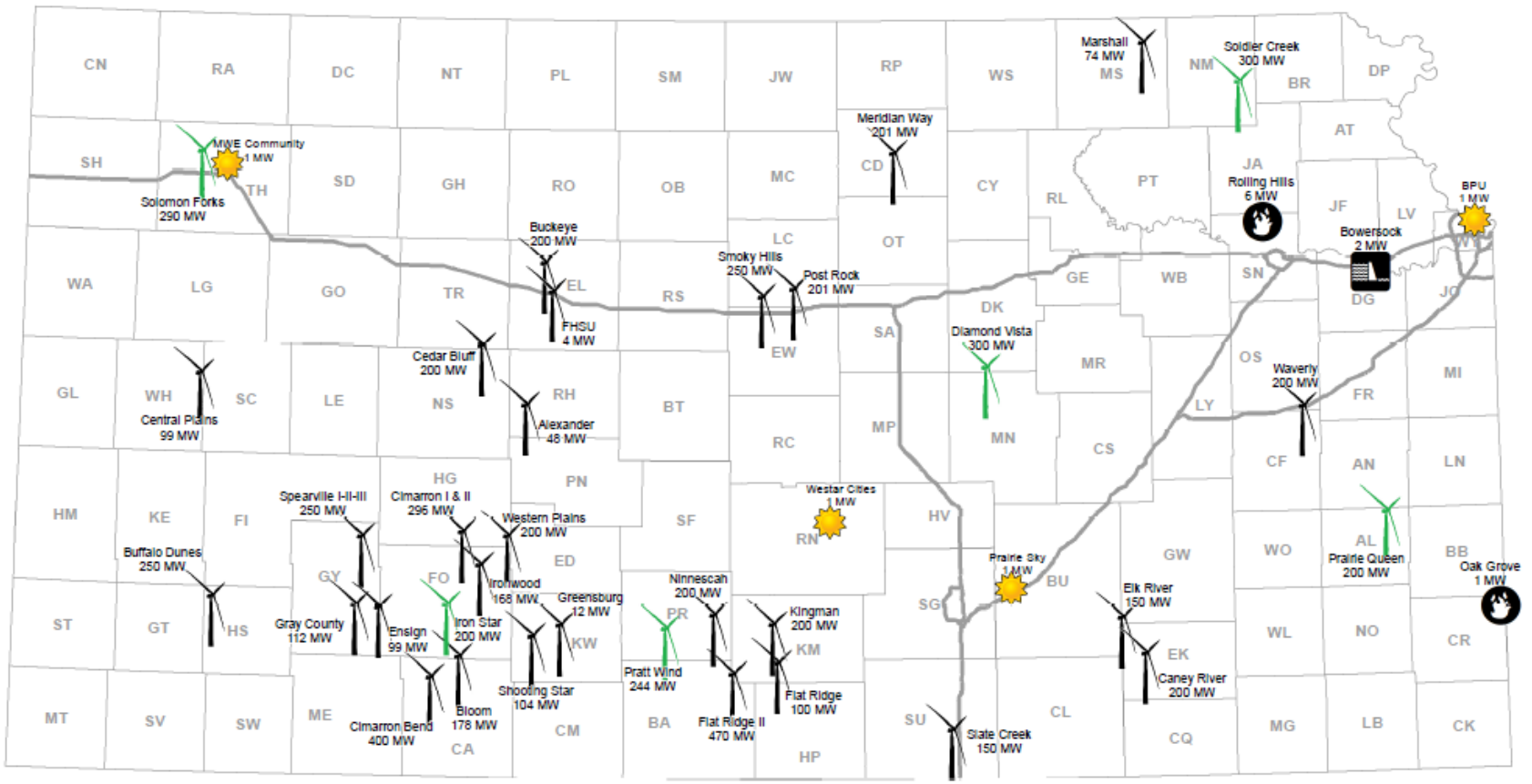
Appendix C-1: Existing Renewable Generators within Kansas

Renewable Generator (Total Nameplate Capacity)	County	Developer	Initial Month and Year of Operation	Utility Purchaser	Size
Slate Creek Wind Project (150 MW)	Sumner	EDF Renewable Energy	December 2015	Great Plains Energy Inc.	150 MW
East Fork Wind Farm	Thomas	ENGIE North America	April 2020	Brown-Forman	196 MW
Midwest Energy Community Solar Garden (1 MW)	Thomas	Clean Energy Collective	February 2015	Midwest Energy	1 MW
Solomon Forks and Solomon Forks East (474 MW)	Thomas	Infinity Renewables and MAP© Energy	July 2019	T-Mobile, Target	276 MW
Central Plains Wind Farm (99 MW)	Wichita	RES America	March 2009	Westar	99 MW
Board of Public Utilities Solar Farm (1 MW)	Wyandotte	Board of Public Utilities	September 2017	Board of Public Utilities	1 MW

Appendix C-2: Announced New Renewable Generation within Kansas

Renewable Generator (Total Nameplate Capacity)	County	Developer	Initial Month and Year of Operation	Utility Purchaser	Size
Jayhawk Wind Farm	Bourbon and Crawford	Apex Clean Energy		Evergy	155 MW
				---	38 MW
Iron Star (200 MW)	Ford	Infinity Renewables	------	Missouri Joint Municipal Electric Utility Commission	200 MW
Ringneck Prairie Wind Farm (70 MW)	Graham	Apex Clean Energy	2020	-------	70 MW
Flat Ridge III	Kingman	AEP	December 2020	Evergy	128 MW
Expedition Wind Farm	Marion	National Renewable Solutions	2021	Evergy	150 MW
Soldier Creek Wind Farm (300 MW)	Nemaha	NextEra energy Resources, LLC	December 2020	Evergy	300 MW
Johnson Corner Solar Project (20 MW)	Stanton		December 2019	Mid-Kansas Electric Company, Inc., Sunflower Electric Power Corporation, lightsourcebp, National Renewables Coop.	20 MW

Commercial-Size Renewable Generation in Kansas



Kansas
Corporation Commission
5 Nov 2018

Appendix D: Inventory of Major Power Plants Serving Kansas Loads

Operating Utility	Power Plant Name Unit / Primary Fuel Source (B-Base, I-Intermediate, P-Peaking)	County	Ownership	Nameplate Capacity (MW)	Initial Year of Operation	2019 Net Generation (MWh)
Wolf Creek Nuclear Operating Corporation	**Wolf Creek** Nuclear (B)	Coffey	KCP&L (47%) Westar (47%) KEPCo (6%)	1,205	1985	9,247,734
Evergy Kansas Central (Evergy)	**Jeffrey Energy Center** Coal (B)	Pottawatomie	Evergy (92%) Mid-Kansas (8%)	2,179	1978 - 1983	6,060,312
	Lawrence Energy Center Coal (B)	Douglas	Evergy (100%)	531	1955 - 1971	2,421,593
	Hutchinson Natural gas (P)	Reno	Evergy (100%)	396	1965	7,930
	Gordon Evans Natural gas (P) Diesel (P)	Sedgwick	Evergy (100%)	821	1961 - 2001	303,336
	Emporia Energy Center Natural gas (LF) and Natural gas (P)	Lyon	Evergy (100%)	660	2008-2009	701,397
	Spring Creek Energy Center Natural gas (P)	Logan, Oklahoma	Evergy (100%)	279	2001	171,217
	Central Plains Wind Farm Wind	Wichita	Evergy (100%)	99	2009	236,922
	Flat Ridge 1 Wind Farm Wind	Barber	Evergy (100%)	100	2009	153,571
	Western Plains Wind Farm Wind	Ford	Evergy (100%)	2281	2017	1,129,806
Evergy Kansas Metro (KCP&L)	**LaCygne** Coal (B)	Linn	KCP&L (50%) Evergy (50%)	1,421.2	1973 - 1977	917,061
	Osawatomie Natural gas (P)	Miami	KCP&L (100%)	186	2003	1,540
	West Gardner Natural gas (P)	Johnson	KCP&L (100%)	360	2003	14,228
	Iatan I Coal (B)	Platte, Missouri	KCP&L (70%) KCP&L-GMO (18%) Empire (12%)	704.7	1980	1,266,686

Operating Utility	Power Plant Name Unit / Primary Fuel Source (B-Base, I-Intermediate, P-Peaking)	County	Ownership	Nameplate Capacity (MW)	Initial Year of Operation	2019 Net Generation (MWh)
	Iatan II Coal (B)	Platte, Missouri	KCP&L (54.71%) KCP&L-GMO (18%) Empire (12%) MJMEUC (11.76%) KEPCo (3.53%)	881	2010	1,597,184
	Montrose Coal (B)	Henry, Missouri	KCP&L (100%)	510	1958	154,607
	Hawthorn Coal (B)	Jackson, Missouri	KCP&L (100%)	564	1969	112,788
	Hawthorn Combine Cycle Natural gas (P)	Jackson, Missouri	KCP&L (100%)	306	1997 - 2000	29,202
	Hawthorn Combustion Turbine Natural gas (P)	Jackson, Missouri	KCP&L (100%)	180	2000	9,418
	Northeast Station Natural gas (P) and Distillate fuel oil (P)	Jackson, Missouri	KCP&L (100%)	520	1972	(46)
	Spearville Wind Farm Wind	Ford	KCP&L (100%)	249	2006 - 2012	133,114
Kansas City Board of Public Utilities (KC-BPU)	**Quindaro** Coal (B)	Wyandotte	KC-BPU (100%)	10	1965 - 1971	0
	Quindaro Combustion Turbine Natural gas (P) and Distillate fuel oil (P)	Wyandotte	KC-BPU (100%)	176	1969 - 1977	7,929
	Nearman Creek Coal (B)	Wyandotte	KC-BPU (100%)	238	1981	952,612
	Nearman Creek Combustion Turbine Natural gas (P)	Wyandotte	KC-BPU (100%)	76 (*with 45MW additional announced)*	2006	6,635
Kansas Electric Power Cooperative, Inc. (KEPCo)	**Sharpe** Distillate fuel oil (I)	Coffey	KEPCo (100%)	20	2002	25
Sunflower Electric Power Corporation (Sunflower)	**Holcomb Station** Coal (B)	Finney	Sunflower (100%)	359	1983	1,575,463

Operating Utility	Power Plant Name Unit / Primary Fuel Source (B-Base, I-Intermediate, P-Peaking)	County	Ownership	Nameplate Capacity (MW)	Initial Year of Operation	2019 Net Generation (MWh)
	Garden City Station Natural gas (I) and Natural gas (P)	Finney	Sunflower (100%)	201	1962 - 1979	76,912
	Fort Dodge 4	Ford	Mid-Kansas (100%)	149	1968	5,358
	Great Bend 3	Barton	Mid-Kansas (100%)	82	1963	2,215
	Cimarron River 1 Natural Gas (B)	Seward	Mid-Kansas (100%)	50	1963	663
	Clifton 1 Natural Gas (P)	Washington	Mid-Kansas (100%)	85	1974	5,675
	Rubart Station Natural Gas (I)	Grant	Sunflower (100%)	110	2014	19,551
Mid-Kansas Electric Company (Mid-Kansas)	**Colby** Natural gas (I)	Barton	Mid-Kansas (100%)	13	1970	879
	Clifton Station Natural gas (P) and Distillate fuel oil (P)	Washington	Mid-Kansas (100%)	75.5	1974	3,107
	Goodman Energy Center Natural gas (P) *(formerly Judson Large)*	Ford	Mid-Kansas (100%)	50	73.8	68,892
	Great Bend Station Natural gas (I) *(formerly Arthur Mullergren)*	Barton	Mid-Kansas (100%)	0	1963	(51)
	Bird City Distillate fuel oil(P)	Cheyenne		4		(10)
Liberty Utilities (Empire)	**Riverton** Natural gas (P)	Cherokee	Empire (100%)	92	1950	0
	Riverton Combustion Turbine Natural gas (P)	Cherokee	Empire (100%)	283	1964	1,034,616
	Asbury Coal (B)	Jasper, Missouri	Empire (100%)	189	1970 - 1986	1,079,076
	Empire Energy Center Natural gas (P)	Jasper, Missouri	Empire (100%)	300	1978 - 2003	27,722
	Ozark Beach Hydro (B)	Taney, Missouri	Empire (100%)	16	1931	41,927
	State Line Combine Cycle Natural gas (P)	Jasper, Missouri	Empire (60%) Evergy (40%)	499	2001	1,827,310

Operating Utility	Power Plant Name Unit / Primary Fuel Source (B-Base, I-Intermediate, P-Peaking)	County	Ownership	Nameplate Capacity (MW)	Initial Year of Operation	2019 Net Generation (MWh)
	State Line Combustion Turbine Natural gas (P)	Jasper, Missouri	Empire (100%)	96	1995	18,633
Plum Point Energy Associates, LLC	**Plum Point Energy** Coal (B)	Mississippi, Arkansas	EIF Plum Point (29.6%) John Hancock (27.25%) MJMEUC (22.11%) Empire (7.52%) East Texas Coop. (7.52%) Mississippi Municipal Energy Agency (6%)	670	2010	3,716,051
Midwest Energy, Inc. (Midwest)	**Colby** Dual Fuel (P)	Thomas	Midwest (100%)	13	1970	79
	Great Bend Dual Fuel (P)	Barton	Midwest (100%)	10	1948 - 1956	(51)
	Bird City Distillate fuel oil (P)	Cheyenne	Midwest (100%)	4	1965	0
	Goodman Energy Center Natural gas (P)	Ellis	Midwest (100%)	73.8	2008	34,446