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Depreciation/
Retirements/
One CIS
Robinett/Direct
Public Counsel
ER-2018-0145
and ER-2018-0146

DIRECT TESTIMONY

OF

JOHN A. ROBINETT

Submitted on Behalf of
the Office of the Public Counsel

KANSAS CITY POWER & LIGHT COMPANY
and
KCP&L GREATER MISSOURI OPERATIONS COMPANY

Case No. ER-2018-0145 and ER-2018-0146

**

**

Denotes Information that has been redacted

June 19, 2018

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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Kansas City Power &)
Light Company's Request for Authority) File No. ER-2018-0145
to Implement a General Rate Increase)
for Electric Service)

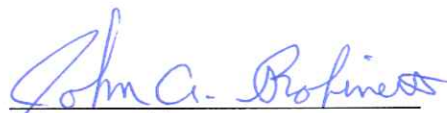
In the Matter of KCP&L Greater Missouri)
Operations Company's Request for) File No. ER-2018-0146
Authority to Implement a General)
Rate Increase for Electric Service)

AFFIDAVIT OF JOHN A. ROBINETT

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

John A. Robinett, of lawful age and being first duly sworn, deposes and states:


1. My name is John A. Robinett. I am a Utility Engineering Specialist for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my direct testimony.
3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.


John A. Robinett
Utility Engineering Specialist

Subscribed and sworn to me this 19th day of June 2018.



JERENE A. BUCKMAN
My Commission Expires
August 23, 2021
Cole County
Commission #13754037


Jerene A. Buckman
Notary Public

My Commission expires August 23, 2021.

TABLE OF CONTENTS

| Testimony | Page |
|---|-------------|
| Coal Unit Retirements | 2 |
| KCPL Depreciation Recommendation | 10 |
| GMO Depreciation Recommendation | 12 |
| GMO Additional Amortization | 14 |
| KCPL Operations and Maintenance Expense | 15 |
| GMO Operations and Maintenance Expense | 16 |
| ONE CIS | 17 |

**DIRECT TESTIMONY
OF
JOHN A. ROBINETT
KANSAS CITY POWER AND LIGHT COMPANY
KCP&L - GREATER MISSOURI OPERATIONS COMPANY
CASE Nos. ER-2018-0145 and ER-2018-0146**

1 **Q. What is your name and what is your business address?**

2 A. John A. Robinett, PO Box 2230, Jefferson City, Missouri 65102.

3 **Q. By whom are you employed and in what capacity?**

4 A. I am employed by the Missouri Office of the Public Counsel (“OPC”) as a Utility Engineering
5 Specialist.

6 **Q. Have you previously provided testimony before the Missouri Public Service
7 Commission?**

8 A. Yes.

9 **Q. What is your work and educational background?**

10 A. A copy of my work and educational experience is attached to this testimony as Schedule
11 JAR-D-1.

12 **Q. What is the purpose of your direct testimony?**

13 A. The purpose of this testimony is to address the expenses related to the known retirements
14 of Kansas City Power & Light Company (“KCPL”) Montrose units 2 and 3, and KCP&L
15 Greater Missouri Operations Company (“GMO”) Sibley units 1, 2, and 3 in December of
16 2018 and the retirement of GMO Lake Road unit 4/6 by December of 2019.

17 **Q. Would you briefly summarize OPC’s recommendations provided in your testimony?**

18 A. OPC recommends that all of the costs associated with the retirements of KCPL’s Montrose
19 units 2, 3, and Montrose common plant, and GMO’s Sibley units 1, 2, 3, and Sibley
20 common plant not be included in the respective utility’s cost of service used for setting
21 rates, as each of these units will be retired by end of 2018. The estimated reserve shortfall
22 for KCPL’s Montrose facilities is \$65,129,906. The estimated reserves shortfall for GMO’s
23 Sibley facilities is \$409,028,847. Additionally OPC recommends the Commission stop the

1 \$7.2 million additional amortization related to depreciation expense for GMO created in
2 GMO's last general electric rate case. OPC recommends a decrease in depreciation expense
3 for KCPL related to the Montrose retirements of \$3,139,379 based on depreciation expense
4 of true-up accounting schedules from Case No. ER-2016-0285. OPC recommends a
5 decrease in depreciation expense for GMO related to the Sibley retirements of \$9,875,199
6 based on depreciation expense of direct accounting schedules from Case No. ER-2016-
7 0156. OPC recommends that all operations and maintenance expenses for KCPL's
8 Montrose and GMO's Sibley facilities not be included in their respective costs of service
9 used for setting rates in these cases.

10 **Coal Unit Retirements**

11 **Q. Have KCPL and GMO announced they are retiring coal units in 2018 and 2019?**

12 A. Yes. Attached as Schedule JAR-D-2 is a January 20, 2015, press release from KCP&L
13 announcing the plan to cease burning coal at three power plant locations (Montrose, Sibley,
14 and Lake Road). Also attached as Schedule JAR-D-3 is a June 2, 2017, press release from
15 KCP&L announcing the retirement of six units (Montrose Units 2 and 3, Sibley Units 1, 2,
16 and 3, and Lake Road Unit 4/6) at three power plant locations. Additionally KCPL in
17 response to OPC data request 8508 stated, "[In] the 2017 KCP&L Annual Update filed on
18 June 1, 2017 under MPSC Case No. EO-2017-0229, it was stated that Montrose Units 2
19 and 3 would be retired 'by 2019.' In the 2017 GMO Annual Update file on June 1, 2017
20 under MPSC Case No. EO-2017-0230, it was stated that Sibley Units 2 and 3 would be
21 retired 'by 2019' and Lake Road 4/6 retiring 'by 2020.'"

22 **Q. Does OPC have concerns with any of these announced coal unit retirements?**

23 A. Yes. In the last rate case ER-2016-0285, the retirement dates for Montrose units 2 and 3
24 were 2021. In Case No. ER-2016-0156, the Sibley 1 and 2 retirement dates were 2019;
25 likewise, the estimated retirement of Lake Road unit 4/6 was 2020. OPC recognizes that
26 these plants have reached the end of their useful life and is not concerned with KCP&L's
27 announcement of their retirements at the ends of 2018 and 2019.

1 However, OPC does have concerns that the premature retirement of GMO's Sibley unit 3
2 could be imprudent. GMO did not raise the retirement of Sibley 3 in this case. However,
3 the implications of the announced early retirement date of December 2018 for this plant
4 should be addressed in this case. Sibley Unit 3 provides the most energy of all of GMO's
5 generating units. In addition, the retirement of Sibley Unit 3 creates a large depreciation
6 reserve deficiency, since GMO's depreciation rates were set in the 2016 rate case to collect
7 original cost plus net salvage for Sibley unit 3 over the remaining life based on GMO's
8 estimated then retirement date of 2040. OPC expressed its concerns regarding the
9 premature retirement of this generating unit in *Public Counsel's Suggested Special*
10 *Contemporary Resource Planning Issues* in Case No. EO-2018-0045. In that filing OPC
11 articulated its concerns as follows:

12 In short, if the company's modeling suggests retiring significant amounts of
13 generation prematurely is prudent; it is likely that other SPP members'
14 modeling will show similar results. Under that scenario, a near-term future
15 where excess SPP reserve margins, resulting in a low cost energy market,
16 are erased entirely appears plausible.

17 OPC's filing and the memo attached to that filing is contained in its entirety as Schedule
18 JAR-D-4 to this testimony.

19 **Q. Why is KCP&L's announced retirement date for Sibley unit 3 a premature retirement?**

20 A. In Case No. ER-2009-0090, GMO was seeking recovery of Selective Catalytic Reduction
21 ("SCR") equipment GMO was installing on Sibley unit 3 to comply with the Clean Air
22 Interstate Rule and the Clean Air Mercury Rule. Based on my review, the depreciation
23 study performed in Case No. ER-2010-0356 did not contain data related to the SCR for
24 Sibley 3 as it was not declared to be in service until first quarter of 2009, and the study
25 only included historical data through December 31, 2008. As part of its 2010 rate case,
26 Case No. ER-2010-0356, GMO filed a depreciation study that indicated the useful life for
27 Sibley 3 was until 2030. The Depreciation study performed in Case No. ER-2016-0156 is
28 the first study to examine Sibley 3 after the SCR was in service, and in that case the life of
29 the unit was extended from 2030 to 2040. In this case, based on GMO's announced

1 retirement date, the useful life of the unit as of the time of this testimony is a little over six
2 months.

3 **Q. Will GMO have adequate generation capacity after it retires Sibley units 1, 2, and 3 in**
4 **December of 2018?**

5 A. No. Attached as Schedule JAR-D-5 is the Southwestern Power Pool (“SPP”) 2017
6 Resource Adequacy Report published June 19, 2017. Page 28 is the Demand and Capacity
7 report for GMO. This report shows that GMO will be deficient of the SPP target planning
8 capacity for 2019 after the Sibley units are retired at the end of 2018.

9 **Q. Did the SPP make a presentation to the Commission in 2017 which indicated that GMO**
10 **would not satisfy SPP’s Capacity margin requirements in 2019 through 2022?**

11 A. Yes. On August 30, 2017, MISO and SPP both gave presentation during agenda in the large
12 hearing room. The Commission asked several question about the following slide that
13 indicated that GMO was not projected to meet the resource adequacy requirement of SPP
14 in 2019 through 2022:

Final Report – June 2017

| Load Responsible Entity | Met Resource Adequacy Requirement | | | | | |
|--|-----------------------------------|------|------|------|------|------|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Carthage Water & Electric Plant | NO | NO | NO | NO | NO | NO |
| City of Malden Board of Public Works | YES | YES | YES | YES | YES | YES |
| City of Poplar Bluff Municipal Utilities | YES | YES | YES | YES | YES | YES |
| City of West Plains Board of Public Works | YES | YES | YES | YES | YES | YES |
| City Utilities of Springfield | YES | YES | YES | YES | YES | YES |
| Empire District Electric Company | YES | YES | YES | YES | YES | YES |
| Greater Missouri Operations Company (KCP&L) | YES | YES | NO | NO | NO | NO |
| Independence Power & Light | YES | YES | YES | YES | YES | YES |
| Kansas City Power & Light | YES | YES | YES | YES | YES | YES |
| Kennett Board of Public Works | YES | YES | YES | YES | YES | YES |
| Missouri Joint Municipal Electric Utility Commission | YES | YES | YES | YES | YES | YES |
| People's Electric Cooperative | YES | YES | YES | YES | YES | YES |
| Westar Energy | YES | YES | YES | YES | YES | YES |

SPP

14

1
2 OPC has transcribed the dialog related to the previous slide that occurred during the agenda
3 presentation by SPP:

4 Time of transcript start: 1:35:56

5 Sam Loudenslager: ...Even if you've got somebody who likes like they're
6 won't be able to meet this year's resource requirement at some point
7 in the future I wouldn't be too concerned about it. There's plenty of
8 time for things to get- for things to happen. For resources to be
9 procured.

10 Chairman Hall: Well, could you- could you explain or give some
11 background for KCP&L GMO in 2019, the projection is that they
12 won't make that requirement?

¹ <https://psc.mo.gov/CMSInternetData/8-30-17%202017%20Resource%20Adequacy%20Process%20Final%20Report.pdf>

1 Loudenslager: No. I don't know why that is frankly, but it is – I can't tell
2 you. I don't know.

3 Chairman Hall: But you're not – You would anticipate them being able to
4 meet it?

5 Loudenslager: Oh yeah. Yeah.

6 Chairman Hall: Yeah I would too. So I was a little surprised to see that. I
7 was surprised to see that.

8 Loudenslager: And I think that is all I have....Oh, we will do a post-season
9 analysis also, and this will determine whether or not there is any sort
10 of – What would we call that thing?

11 Chairman Hall: You can find the name of a system report [inaudible] or a
12 report type thing.

13 Loudenslager: Yeah. Anyway if there is some sort of assessment that is
14 going to – financial assessment that will need to be made, that will
15 show up. Basically, "here's what you told us you were going to.
16 Here's the resources and the demand you anticipated when you
17 submitted your workbooks to us." We published a report in June that
18 said "Yep. This is what everybody says." In October I believe it is
19 that is we will do an analysis and see okay how did everybody do?
20 Did they meet what they said they were going to meet or not?

21 Unknown: I think KCP&L wants to answer your question.

22 Chairman Hall: Oh. Okay.

23 Loudenslager: Hey Denise.

24 Denise Buffington: Good morning.

25 Chairman Hall: Morning.

26 Buffington: So on behalf of KCP&L and GMO I do not know why the
27 numbers reflect we won't meet our resource requirement in 2019,
28 but I assure you that we have the numbers and we will meet it.

29 Chairman Hall: *laughs*

30 Buffington: I don't know what's in that chart. I haven't seen the numbers.
31 But, you know, we do resource planning and submit those

1 requirements here at the Commission on an annual basis, and we are
2 prepared to meet those requirements.

3 Chairman Hall: Oh. Okay. I am not nervous about it. I'll put it that way.

4 Buffington: I'm nervous about it.

5 Chairman Hall: Well, I was surprised with this calculation. I am not nervous
6 about the company's ability to meet the requirement.

7 Buffington: Thank you.

8 Loudenslager: Any other questions before I move into my last...

9 Chairman Hall: I guess not.

10 End of transcript: 1:38:59

11 Currently, GMO does not own enough capacity to meet its own retail load requirements.
12 For 2018, it **^{**2} With the retirement
13 of Sibley 3, GMO will need additional capacity beyond its 2018 capacity contract. GMO
14 has issued several capacity RFPs to get capacity commitments from other utilities in the
15 SPP market to meet the needs of its customers, at the time of this testimony OPC still has
16 pending discovery related to capacity RFPs and agreed to contracts to purchase capacity.

17 **Q. Is OPC concerned about GMO meeting its requirements?**

18 A. Yes.

19 **Q. So, GMO is prematurely retiring Sibley 3 and then seeking to contract for replacement
20 capacity and energy?**

21 A. Yes and no. GMO is entering into a contract for capacity. However, it has told OPC that it
22 intends to meet the energy needs of its customers by buying energy from the SPP markets.

23 **Q. Does GMO's plan to rely on the SPP energy markets to serve its retail customers cause
24 OPC concern?**

² Case No. ER-2018-0146, Staff Data Request No. 0065

1 A. Yes. In GMO's work papers for this rate case GMO's fuel run showed that it was purchasing
2 energy from the SPP market to meet almost 38% of its native load's energy requirements.
3 With the retirement of Sibley Units 1, 2, and 3, GMO will increase the percentage purchased
4 from the SPP market focusing on reliance on the market than its own generation. This is more
5 disconcerting in that GMO is the one electric utility in our state that has experienced increases
6 load growth, recently it was publicly announced that a new steel facility (Nucor) is going to
7 open in Sedalia, which is in GMO's service territory.

8 **Q. Why is it a problem for GMO to rely so heavily on the SPP market for energy?**

9 A. OPC realizes that there is enough excess capacity in SPP to reliably provide sufficient energy
10 in the SPP markets to serve GMO's customers. However, by depending on the SPP markets
11 for energy, GMO is subjecting its customers to the fluctuations and risks of those markets.

12 **Q. Is GMO asking for both the costs of Sibley and the contract it is planning to use to
13 replace Sibley 3 capacity be included in its revenue requirement used to set rates in this
14 case?**

15 A. No. It is only asking for the costs of the plant. However, any changes in GMO's energy costs
16 will flow to GMO's customers through its Fuel Adjustment Clause ("FAC"), increasing, or
17 decreasing, the FAC charges on their bills from what they otherwise would be. After rates are
18 effective for this case, GMO's customers, after the end of 2018, will be continuing to pay
19 depreciation expense for three units that will no longer be used or useful. In addition, when
20 the PPA agreement wind comes in-service ratepayers will be asked to pay for PPA energy
21 purchases being flowed through the FAC, since they will not be included in the fuel base for
22 this case.

23 **Q. What is KCPL requesting for its Montrose units that concerns OPC?**

24 A. KCPL is seeking as part of its case continued depreciation expense for Montrose Units 2
25 and 3, even though it has announced plans to retire both of these units by the end of 2018.
26 KCPL seeks depreciation expense for these units that will be retired by the end of 2018 to
27 be collected in rates for up to four years during which the units will be retired and not used.
28 Additionally, in its rate case KCPL seeks to build in operating expense, fuel expense for

1 the units to be collected over the next four years. Make no mistake, this case is about
2 beneficial regulatory lag for KCPL related to building in expenses for generating units that
3 KCPL has announced will be retired after the true-up period ends in its case.

4 **Q. What is GMO requesting for its Sibley and Lake Road units that concerns OPC?**

5 A. GMO is seeking to as part of its case continued depreciation expense for Sibley Units 1, 2,
6 and 3, even though it has announced plans to retire the units by these end of 2018. GMO
7 seeks to collect this depreciation expense in rates for up to four years during which the
8 units will be retired and not used. GMO is also seeking continued depreciation expense for
9 Lake Road unit 4/6 which it will retire by the end of 2019. GMO is seeking for that
10 depreciation expense to be collected in rates for up to four years, three years of which the
11 units will be retired and not be used. Additionally, in its rate case GMO seeks to build in
12 operating and fuel expense for the units, also to be collected over the next four years. Make
13 no mistake, this case is about beneficial regulatory lag for GMO related to building into its
14 rates expenses for generating units that GMO has announced will be retired shortly after
15 the end of the true-up period in its case.

16 **Q. Does OPC have other concerns with GMO retiring Sibley unit 3?**

17 A. Yes. GMO decided to shut down its coal unit that, in the Staff work papers from Case No.
18 ER-2016-0156, produced the most energy of all of GMO's units during the test year in that
19 case. Additionally, Sibley, based on Staff's fuel run work papers from the 2016 rate case,
20 is a cheaper unit to run than its jointly-owned Jeffery units. Of its coal resources, GMO's
21 only coal units that are cheaper to run than Sibley unit 3 are Iatan units 1 and 2. Attached
22 as Schedule JAR-D-6C are confidential work papers of Staff from Case No. ER-2016-0156
23 that show the numbers of hours each unit was producing energy for the year and the cost
24 per megawatt hour to operate each generation unit during the year.

25 **Q. Are KCPL and GMO planning to replace any of the capacity from the coal units they
26 are retiring?**

27 A. It is my understanding that KCPL and GMO have entered into two new purchase power
28 agreements for wind.

29 **Q. Should the wind PPAs be included in determining the rates that result from these rate
30 cases?**

1 A. No. It is my understanding that the facilities related to the PPAs will not be in-service until
2 after the true-up period of these cases. However, customers can be charged costs for the
3 wind PPAs through KCPL's and GMO's fuel adjustment clauses. This means that even
4 though the PPA costs may not be considered in these current cases, KCPL and GMO will
5 be able to recover 95% of them from their customers starting when wind facilities are in-
6 service.

7 **Q. Does OPC have any other concerns about the retirements of the Montrose and Sibley**
8 **coal generation units?**

9 A. Yes. As a part of the Department of Economic Development, OPC has concerns related to the
10 loss of jobs that the retirement of the generation facilities will create. With the retirements at
11 Montrose (KCPL) and Sibley (GMO) there will no longer be units at either site that produce
12 power.

13 **KCPL Depreciation Recommendation**

14 **Q. What is OPC's position on depreciation expense for Montrose units 2 and 3?**

15 A. KCPL is seeking that its currently ordered depreciation rates be continued. OPC states it
16 would be unjust and unreasonable to include continued depreciation expense for the
17 Montrose units when determining going-forward rates given KCPL's announcement it is
18 retiring the Montrose units at the end of 2018, six months after the end of the true-up period.
19 Based on KCPL's application new rates will go into effect by December 29, 2018. KCPL's
20 position would allow it to get depreciation expense built into rates for facilities it will soon
21 retire at the Montrose location after rates become effective. Once the units are retired off
22 KCPL's books, KCPL will then no longer be required to book depreciation expense to the
23 depreciation reserve for those units, instead those dollars will become profit. OPC
24 recommends that the depreciation rates for Montrose Units 2, 3, and Montrose common
25 plant be set to zero percent as the units will no longer be used and useful by the time new
26 rates from this case are effective.

1 **Q. What is OPC's recommendation if the Commission should grant continued**
2 **depreciation expense for Montrose units 2 and 3 at the current ordered depreciation**
3 **rates?**

4 A. If the Commission orders KPCL to continue to use the current ordered depreciation rates
5 on the Montrose units, OPC requests that the Commission order a tracker be put in place
6 to account for the depreciation expense KCPL will no longer book after the units are retired.
7 Ratepayers should be given full credit for the depreciation expense KCPL is collecting in
8 rates for retired units, units which no longer provide either energy or capacity. Senate Bill
9 564, which was signed into law on June 1, 2018, allows for plant-in-service accounting,
10 which allows for the deferral of 85% of the depreciation expense for plant placed in-service
11 in between rate cases. This was previously positive regulatory lag for utility customers;
12 however, now customers will be picking up the deferred depreciation expense and rate of
13 return over a twenty-year period. With this reduction in risk for the shareholders of the
14 utility, it is only just and reasonable that the Commission protect ratepayers. The
15 Commission should do so by tracking and then offsetting future rate base by the
16 depreciation expense that was built into rates for retired units until rates are reset in the
17 next general rate case. With this reduction in risk for the utility shareholders, it is only just
18 and reasonable that the Commission protect ratepayers by tracking and then offsetting
19 future rate base with the value that was built into rates for the depreciation expense of the
20 units that will be retired at the end of the year until rates are reset in the next general rate
21 case.

22 **Q. Has OPC estimated the magnitude of KCPL's unrecovered original cost for Montrose**
23 **Units 2 and 3?**

24 A. Yes. OPC estimates KCPL's potential under recovery of its investment in Montrose units
25 2, 3, and common plant at December 31, 2018, including cost of removal, to be
26 \$65,129,906.

27 **Q. Does OPC recommend recovery of KCPL's estimated unrecovered original cost for**
28 **Montrose Units 2 and 3 in this case?**

1 A. No. The only recovery to be addressed in this case is the remaining depreciation expense
2 until the units are retired by end of 2018. Based on KCPL's application, OPC recommends
3 setting the depreciation rates to zero percent for all of the Montrose accounts, as the units
4 will be retired by the effective date of new rates in this case.

5 **Q. Is OPC aware of anything that may change its position on this matter?**

6 A. Yes. OPC is aware that on June 1, 2018, President Trump ordered Energy Secretary Rick
7 Perry to "prepare immediate steps" to stop the closing of unprofitable coal and nuclear
8 plants around the country.³ OPC is unaware of the timing of a recommendation to be
9 produced by Energy Secretary Perry and if it would be in time to delay KPLC's retirements
10 of the Montrose units and common plant.

11 **GMO Depreciation Recommendation**

12 **Q. What is OPC's position on depreciation expense for Sibley Units 1, 2, and 3?**

13 A. GMO is seeking that its currently ordered depreciation rates be continued. OPC states it
14 would be unjust and unreasonable to include continued depreciation expense for the Sibley
15 units when determining going-forward rates given GMO's announcement it is retiring the
16 Montrose units at the end of 2018, six months after the end of the true-up period. Based on
17 GMO's application new rates will go into effect by December 29, 2018. GMO's position
18 would allow it to get continued depreciation expense built into rates for facilities it will
19 soon retire at the Sibley location after rates become effective. Once the units are retired off
20 the books, GMO when then no longer be required to book depreciation expense to the
21 depreciation reserve for those units, instead those dollars will become profit. OPC
22 recommends that the depreciation rates for Sibley Units 1, 2, 3, and Sibley common plant
23 be set to zero percent as the units will no longer be used and useful by the time new rates
24 from this case are effective.

25 **Q. What is OPC's position on depreciation expense for Lake Road Unit 4/6?**

³ New York Times article "Trump Orders a Lifeline for Struggling Coal and Nuclear Plants" published June 1, 2018

1 A. The Commission should order GMO to continue to use the currently ordered depreciation
2 rates for Lake Road Unit 4/6, and depreciation expense for Lake Road Unit 4/6 should be
3 built into GMO's revenue requirement. Since GMO has announced it is retiring Lake Road
4 Unit 4/6 by the end of 2019, it is appropriate to place a tracker on the depreciation expense
5 that is built into rates for the unit in order to protect and give ratepayers recognition of
6 amount they are paying in depreciation expense for the unit in rates, but that will no longer
7 be booked as depreciation expense once unit is retired.

8 **Q. What is OPC's recommendation if the Commission should grant continued**
9 **depreciation expense for Sibley units 1, 2, and 3, and Lake Road Unit 4/6 at the**
10 **current ordered depreciation rates?**

11 A. If the Commission orders GMO to continue to use the current ordered depreciation rates
12 on the Sibley units and Lake Road unit 4/6, OPC requests that the Commission order a
13 tracker be put in place to account for the depreciation expense GMO will no longer book
14 after the units are retired. Ratepayers should be given full credit for the depreciation
15 expense GMO is collecting in rates for retired units, units which no longer provide either
16 energy or capacity. Senate Bill 564, which was signed into law on June 1, 2018, allows for
17 plant-in-service accounting which allows for the deferral of 85% of the depreciation
18 expense for plant placed in-service in between rate cases. This was previously positive
19 regulatory lag for the customers; however, now ratepayers will be picking up the deferred
20 depreciation expense and rate of return over a twenty-year period. With this reduction in
21 risk for the shareholders of the utility, it is only just and reasonable that the Commission
22 protect ratepayers. The Commission should do so by tracking and then offsetting future
23 rate base the depreciation expense that was built into rates for retired units until rates are
24 reset in the next general rate case.

25 **Q. Has OPC estimated the magnitude of the unrecovered original cost for the Sibley**
26 **facilities and Lake Road unit 4/6?**

27 A. OPC calculated the unrecovered cost for Sibley units 1, 2, 3, and common plant including
28 cost of removal to be \$409,028,847 at the expected retirement date of December 31, 2018.

1 Of that value, Sibley unit 3 is estimated to have a short fall of \$280,036,531 if retired at
2 the end of 2018. Lake Road Unit 4/6 expected to retire by end of 2019 is projected to be
3 under recover by \$34,400,426, including cost of removal if retired in December of 2019 as
4 GMO has publicly announced.

5 **Q. Does OPC recommend recovery of GMO’s estimated unrecovered original cost for**
6 **Sibley Units 1, 2, and 3, and Lake Road Unit 4/6 in this case?**

7 A. No. The only recovery to be addressed in this case for these units is the remaining
8 depreciation expense until the units are retired by end of 2018. Based on KCPL’s
9 application OPC recommends setting the depreciation rates to zero percent for all of the
10 Sibley accounts, as the units will be retired by the effective date of new rates in this case.

11 For Lake Road Unit 4/6, OPC recommends the continued use of the current ordered
12 depreciation rates in this case, and OPC recommends a tracker for depreciation expense for
13 Lake Road Unit 4/6, so that rate payer can receive credit for the payment of depreciation
14 expense that was built into rates for this unit after it is retired by the end of 2019 until new
15 rates are set in the next general rate case.

16 **Q. Is OPC aware of anything that may change its position on this matter?**

17 A. Yes. OPC is aware that on June 1, 2018, President Trump ordered Energy Secretary Rick
18 Perry to “prepare immediate steps” to stop the closing of unprofitable coal and nuclear
19 plants around the country.⁴ OPC is unaware of the timing of a recommendation to be
20 produced by Energy Secretary Perry and if it would be in time to delay the retirement of
21 the Montrose units and common plant.

22 **GMO Additional Amortization**

23 **Q. As part of Case No. ER-2016-0156, did GMO get an additional amortization related**
24 **to depreciation expense?**

⁴ New York Times article “Trump Orders a Lifeline for Struggling Coal and Nuclear Plants” published June 1, 2018

1 A. Yes as part of the Stipulation and Agreement in Case No. ER-2016-0156, GMO was
2 granted an additional amortization of \$7.2 million related to depreciation expense.

3 **Q. Does OPC have a position related to this additional amortization?**

4 A. OPC's first recommendation is to remove the additional amortization on a going forward
5 basis. As part of the stipulation and agreement the additional amortization was to be in
6 place until rates were set in the next rate case—this case; also as part of that next rate case
7 parties were to recommend where the dollars collected as additional depreciation expense
8 should be booked. OPC requests that the Commission order GMO to record all additional
9 depreciation expense received through the additional amortization of \$7.2 million since its
10 last rate case as reserve additions to the FERC sub accounts for the Sibley generation
11 facilities. The language from the Non-Unanimous Stipulation and Agreement follows:

12 In addition to the attached schedule, GMO shall be allowed to
13 collect an annual amortization amount equal to \$7.2 million. This additional
14 amortization shall be booked and accounted for on an annual basis until
15 GMO's next general electric rate case. In GMO's next filed rate case the
16 Commission will determine the distribution of the additional amortization.
17 The balance will be used to cover any deficiencies in reserves across
18 production, transmission and distribution accounts. Any undistributed
19 balance will be used as an offset to future rate base. This amortization is for
20 purpose of settlement of this case only and does not constitute an agreement
21 as to the methodology or a precedent for any future rate case.

22 OPC also requests that the Commission not continue to authorize the additional
23 amortization for depreciation expense of \$7.2 million. The Commission should remove
24 the \$7.2 million additional amortization from rates going forward.

25 **KCPL Operations and Maintenance Expense**

26 **Q. What is OPC's position on operations and maintenance expense for the Montrose**
27 **units?**

28 A. Consistent with OPC's position on depreciation expense, for the Montrose units and
29 Montrose common plant that will be retired by the end of 2018 no operations or

1 maintenance expense should be included in the costs of service used for setting rates in
2 these cases.

3 **Q. Why should the costs of service for KCPL not include operations and maintenance**
4 **expense for Montrose?**

5 A Based on the applications, new rates are projected to become effective December 29, 2018.
6 When paired with the announcement of the retirements of the Montrose units and Montrose
7 common plant by the end of 2018, the longest the units could be operating under new rates
8 is two days. It is very likely that by the time new rates from these cases are effective the
9 units will have been retired. Ratepayers should not be asked to pay for operations and
10 maintenance expense on units that are no longer used and are not providing a benefit.

11 **GMO Operations and Maintenance Expense**

12 **Q. What is OPC's position on operations and maintenance expense for the Sibley units**
13 **and Sibley common plant?**

14 A. Consistent with OPC's position on depreciation expense, for the Sibley units and Sibley
15 common plant that will be retired by the end of 2018 no operations or maintenance expense
16 should be included in the costs of service used for setting rates in these cases.

17 **Q. Why should the costs of service for GMO not include operations and maintenance**
18 **expense for Sibley?**

19 A Based on the applications, new rates are projected to become effective December 29, 2018.
20 When paired with the announcement of the retirements of the Sibley units and Sibley
21 common plant by the end of 2018, the longest the units could be operating under new rates
22 is two days. It is very likely that by the time new rates from these cases are effective the
23 units will have been retired. Ratepayers should not be asked to pay for operations and
24 maintenance expense on units that are no longer used and are not providing a benefit.

1 **ONE CIS**

2 **Q. What is the cost of the ONE CIS solution?**

3 A. KCPL and GMO have provided three in person update meetings related to the project to
4 which I personally attended there may have been more. In the April 3, 2018 update meeting
5 provided a confidential value of the ONE CIS. The original control budget was **

6 **; additionally during this update meeting KCPL and GMO discussed a 93 day
7 delay during system integration testing and provided an updated estimate of the budget **
8 ** at completion.

9 **Q. What is OPC's position related to ONE CIS solution?**

10 A. OPC seeks to allocate the costs that are fair and just for Missouri ratepayers. The ONE
11 CIS is a major factor of the savings that the merger with Westar as it will allow Westar to
12 be integrated into the system without having to foot the bill for an entirely separate system
13 at some point in the future.

14 **Q. What allocation method is OPC recommending?**

15 A. At this time OPC still has pending discovery related to this issue. OPC will be better
16 positioned at rebuttal to provide an allocation method and cost estimates for the KCPL MO
17 and GMO jurisdictions to be included in the cost of service for these cases.

18 **Q. Would you briefly summarize OPC's recommendations provided in your testimony?**

19 A. OPC recommends that all costs associated with the retirements of KCPL's Montrose units
20 2, 3, and common plant, and GMO's Sibley units 1, 2, 3, and common plant not be included
21 in the costs of service of KPCL and GMO used for setting rates in these cases as these units
22 will be retired by end of 2018. The estimated reserve shortfall for KCPL's Montrose
23 facilities is \$65,129,906. The estimated reserves shortfall for GMO's Sibley facilities is
24 \$409,028,847. Additionally, OPC recommends the Commission stop the \$7.2 million
25 additional amortization related to depreciation expense for GMO. OPC recommends a
26 decrease in depreciation expense for KCPL related to the Montrose retirements of
27 \$3,139,379 based on depreciation expense of true-up accounting schedules from Case No.
28 ER-2016-0285. OPC recommends a decrease in depreciation expense for GMO related to

1 the Sibley retirements of \$9,875,199 based on depreciation expense of direct accounting
2 schedules from Case No. ER-2016-0156. OPC recommends that all operations and
3 maintenance expenses for KCPL Montrose and GMO Sibley facilities not be included in
4 the costs of service of KPCL and GMO used for setting rates in these cases.

5 **Q. Does this conclude your direct testimony?**

6 **A.** Yes, it does.

John A. Robinett

I am employed as a Utility Engineering Specialist for The Missouri Office of the Public Counsel (OPC). I began employment with OPC in August of 2016. In May of 2008, I graduated from the University of Missouri-Rolla (now Missouri University of Science and Technology) with a Bachelor of Science degree in Mechanical Engineering.

During my time as an undergraduate, I was employed as an engineering intern for the Missouri Department of Transportation (MoDOT) in their Central Laboratory located in Jefferson City, Missouri for three consecutive summers. During my time with MoDOT, I performed various qualification tests on materials for the Soil, Aggregate, and General Materials sections. A list of duties and tests performed are below:

- Compressive strength testing of 4" and 6" concrete cylinders and fracture analysis
- Graduations of soil, aggregate, and reflective glass beads
- Sample preparations of soil, aggregate, concrete, and steel
- Flat and elongated testing of aggregate
- Micro-deval and LA testing of aggregate
- Bend testing of welded wire and rebar
- Tensile testing of welded, braided cable, and rebar
- Hardness testing of fasteners (plain black and galvanized washers, nuts, and bolts)
- Proof loading and tensile testing of bolts
- Sample collection from active road constructions sites
- Set up and performed the initial testing on a new piece of equipment called a Linear Traverse / Image Analysis
- Wrote operators manual for the Linear Traverse / Image Analysis Machine
- Trained a fulltime employee on how to operate the machine prior to my return to school
- Assisted in batching concrete mixes for testing, mixing the concrete, slump cone testing, percent air testing, and specimen molding of cylinders and beams

Upon graduation, I accepted a position as an Engineer I in the Product Evaluation Group for Hughes Christensen Company, a division of Baker Hughes, Inc. (Baker), an oil field service company. During my employment with Baker, I performed failure analysis on oil field drill bits as well as composed findings reports which were forwarded to the field engineers in order for them to report to the company the conclusions of the failure causes.

I previously was employed as a Utility Engineering Specialist I, II, III for the Missouri Public Service Commission (Commission). My employment with the Commission spanned from April of 2010 to August of 2016. My duties involved analyzing depreciation rates and studies for utility companies and presenting expert testimony in rate cases before the Commission.

JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION

Listed below are the cases in which I have supplied testimony, comments, and/or depreciation rates accompanied by a signed affidavit.

| Company | Case Number | Issue | Party |
|--|--|--|--------------------------------|
| Empire District Electric Company | EO-2018-0092 | Rebuttal, Surrebuttal, Affidavit in Opposition, Additional Affidavit and Live Testimony | Office of Public Counsel (OPC) |
| Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities | GR-2018-0013 | Rebuttal and Surrebuttal Testimony depreciation, general plant amortization | OPC |
| Laclede Gas Company Missouri Gas Energy Spire Missouri East Spire Missouri West | GO-2016-0332 GO-2016-0333 GO-2017-0201 GO-2017-0202 GR-2017-0215 GR-2017-0216 | ISRS Over collection of depreciation expense and ROE based on Western District Opinion Docket No. WD80544 | OPC |
| Gascony Water Company, Inc. | WR-2017-0343 | Rebuttal, Surrebuttal, and Live Testimony rate base, depreciation, NARUC USoA Class designation | OPC |
| Missouri American Water Company | WR-2017-0285 | Direct, Rebuttal, Surrebuttal, and Live Testimony depreciation, ami, negative reserve, Lead Line | OPC |
| Indian Hills Utility Operating Company, Inc. | WR-2017-0259 | Direct, Rebuttal, Surrebuttal, and Live Testimony Rate Base (extension of electric service, leak repairs) | OPC |
| Laclede Gas Company Missouri Gas Energy | GR-2017-0215 GR-2017-0216 | Direct, Rebuttal, Surrebuttal, True-up Rebuttal, and Live Testimony depreciation, retirement work in progress, combined heat and power, ISRS | OPC |

**JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION**

| Company | Case Number | Issue | Party |
|---|--------------------|---|--|
| Empire District Electric Company | EO-2018-0048 | IRP Special issues | OPC |
| Kansas City Power & Light Company | EO-2018-0046 | IRP Special issues | OPC |
| Kansas City Power & Light Company Greater Missouri Operations | EO-2018-0045 | IRP Special issues | OPC |
| Kansas City Power & Light Company Greater Missouri Operations | EO-2017-0230 | 2017 IRP annual update comments | OPC |
| Empire District Electric Company | EO-2017-0065 | Direct, Rebuttal, Surrebuttal, and Live Testimony FAC Prudence Review Heat Rate | OPC |
| Ameren Missouri | ER-2016-0179 | Direct, Rebuttal, Testimony Heat Rate Testing & Depreciation | OPC |
| Kansas City Power & Light Company | ER-2016-0285 | Direct, Rebuttal, Surrebuttal, and Live Testimony Heat Rate Testing & Depreciation | OPC |
| Empire District Electric Company Merger with Liberty | EM-2016-0213 | Rebuttal Testimony | Missouri Public Service Commission (MOPSC) |
| Empire District Electric Company | ER-2016-0023 | Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony | MOPSC |
| Hillcrest Utility Operating Company, Inc. | SR-2016-0065 | Depreciation Review | MOPSC |
| Hillcrest Utility Operating Company, Inc. | WR-2016-0064 | Depreciation Review | MOPSC |
| Missouri American Water Company | WR-2015-0301 | Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony | MOPSC |

**JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION**

| Company | Case Number | Issue | Party |
|---|--|--|--------------|
| Bilyeu Ridge Water Company, LLC Midland Water Company, Inc. Moore Bend Water Utility, LLC Riverfork Water Company Taney County Water, LLC Valley Woods Utility, LLC(Water) Valley Woods Utility, LLC(Sewer) Consolidated into Ozark International, Inc. | WR-2015-0192 WR-2015-0193 WR-2015-0194 WR-2015-0195 WR-2015-0196 WR-2015-0197 SR-2015-0198 Consolidated into WR-2015-0192 | Depreciation Review *filed depreciation rates not accompanied by signed affidavit | MOPSC |
| I. H. Utilities, Inc. sale to Indian Hills Utility Operating Company, Inc. | WO-2016-0045 | Depreciation Rate Adoption CCN | MOPSC |
| Missouri American Water Company CCN City of Arnold | SA-2015-0150 | Depreciation Rate Adoption CCN | MOPSC |
| Empire District Electric Company | ER-2014-0351 | Direct, Rebuttal, and Surrebuttal Testimony | MOPSC |
| West 16th Street Sewer Company, W.P.C. Sewer Company, Village Water and Sewer Company, Inc. and Raccoon Creek Utility Operating Company, Inc. | SM-2015-0014 | Depreciation Rate Adoption | MOPSC |
| Brandco Investments LLC and Hillcrest Utility Operating Company, Inc. | WO-2014-0340 | Depreciation Rate Adoption, Rebuttal Testimony | MOPSC |
| Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities | GR-2014-0152 | Direct, Rebuttal, Surrebuttal and Live Testimony | MOPSC |
| Summit Natural Gas of Missouri, Inc | GR-2014-0086 | Depreciation Study, Direct and Rebuttal Testimony | MOPSC |
| P.C.B., Inc. | SR-2014-0068 | Depreciation Review | MOPSC |
| M.P.B., Inc. | SR-2014-0067 | Depreciation Review | MOPSC |
| Roy-L Utilities | WR-2013-0543 | Depreciation Review | MOPSC |
| Roy-L Utilities | SR-2013-0544 | Depreciation Review | MOPSC |
| Missouri Gas Energy Division of Laclede Gas Company | GR-2014-0007 | Depreciation Study, Direct and Rebuttal Testimony | MOPSC |
| Central Rivers Wastewater Utility, Inc. | SA-2014-00005 | Depreciation Rate Adoption | MOPSC |

**JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION**

| Company | Case Number | Issue | Party |
|---|--------------------|---|--------------|
| Empire District Electric Company | ER-2012-0345 | Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony | MOPSC |
| Empire District Electric Company | WR-2012-0300 | Depreciation Review | MOPSC |
| Laclede Gas Company | GO-2012-0363 | Depreciation Authority Order Rebuttal, Surrebuttal and Live Testimony | MOPSC |
| Moore Bend Water Company, Inc. sale to Moore Bend Water Utility, LLC (Water) | WM-2012-0335 | Depreciation Rate Adoption | MOPSC |
| Oakbrier Water Company, Inc. | WR-2012-0267 | Depreciation Review | MOPSC |
| Lakeland Heights Water Co., Inc. | WR-2012-0266 | Depreciation Review | MOPSC |
| R.D. Sewer Co., L.L.C. | SR-2012-0263 | Depreciation Review | MOPSC |
| Canyon Treatment Facility, LLC | SA-2010-0219 | Depreciation Rate Adoption- CCN | MOPSC |
| Taney County Water, LLC | WR-2012-0163 | Depreciation Review | MOPSC |
| Sale of Saddlebrooke Water and Sewer Infrastructure, LLC to Missouri American Water Company (Sewer) | SA-2012-0067 | Rebuttal Testimony | MOPSC |
| Sale of Saddlebrooke Water and Sewer Infrastructure, LLC to Missouri American Water Company (Water) | WA-2012-0066 | Rebuttal Testimony | MOPSC |
| Midland Water Company, Inc. | WR-2012-0031 | Depreciation Review | MOPSC |
| Sale of KMB Utility Corporation to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Sewer) | SO-2011-0351 | Depreciation Rate Adoption | MOPSC |
| Sale of KMB Utility Corporation to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Water) | WO-2011-0350 | Depreciation Rate Adoption | MOPSC |
| Sale of Noel Water Company, Inc. to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Water) | WO-2011-0328 | Depreciation Rate Adoption | MOPSC |
| Sale of Taney County Utilities Corporation to Taney County Water, LLC (Water) | WM-2011-0143 | Depreciation Rate Adoption | MOPSC |

**JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION**

| Company | Case Number | Issue | Party |
|-------------------------------------|--------------------|---|--------------|
| Empire District Electric Company | ER-2011-0004 | Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony | MOPSC |
| Rex Deffenderfer Enterprises, Inc. | WR-2011-0056 | Depreciation Review | MOPSC |
| Tri-States Utility, Inc | WR-2011-0037 | Depreciation Review | MOPSC |
| Southern Missouri Gas Company, L.P. | GE-2011-0096 | Depreciation Study Waiver | MOPSC |
| Southern Missouri Gas Company, L.P. | GR-2010-0347 | Depreciation Review | MOPSC |
| KMB Utility Corporation (Sewer) | SR-2010-0346 | Depreciation Review | MOPSC |
| KMB Utility Corporation (Water) | WR-2010-0345 | Depreciation Review | MOPSC |
| Middlefork Water Company | WR-2010-0309 | Depreciation Review | MOPSC |

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KCP&L Announces Plans to Cease Burning Coal at Three Power Plants

1/20/2015

MEDIA CONTACT:

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KCP&L FURTHERS SUSTAINABILITY COMMITMENT BY ANNOUNCING PLANS TO CEASE BURNING COAL AT THREE POWER PLANTS

KANSAS CITY, Mo. (January 20, 2015) — Kansas City Power & Light Company (KCP&L) announced today that in the coming years it will no longer burn coal at three of its coal-fired power plants, Montrose Station, one of its units at Lake Road Station and two of its units at Sibley Station. This announcement furthers the company's commitment to a sustainable energy future and balanced generation portfolio. Lake Road's boiler already has the ability to burn natural gas and the company plans to operate on natural gas once it ceases coal combustion. In the coming years, KCP&L will make final decisions regarding whether to retire the units at Montrose and Sibley, or convert them to an alternative fuel source.

"After evaluating options for future environmental regulation compliance, ending coal use at these plants is the most cost effective and cleanest option for our customers," said Terry Bassham, President and CEO of Great Plains Energy and KCP&L. "By retiring or converting more than 700 megawatts of coal-fired generation, we'll take an even bigger step toward reducing emissions and improving the air quality in our region."

Schedule JAR-D-2

The decision comes in part as a result from recent Environmental Protection Agency (EPA) regulations, which would require KCP&L to make significant environmental upgrades in the coming years in order to continue burning coal at these power plants. While retrofitting our largest, newer coal-fired power plants was the most cost-effective way to comply with environmental regulations, the same cannot be said for the older, smaller units at Montrose, Lake Road and Sibley. Retiring or converting the units at Montrose, Lake Road and Sibley will be a more cost-effective way to meet environmental regulations.

Timeline for Coal Cessation:

| Generating Unit: | Capacity: | In-Service Year: | Cease Coal Burning By: |
|------------------|-----------|------------------|------------------------|
| Lake Road 6 | 96 MW | 1967 | December 31, 2016 |
| Montrose 1 | 170 MW | 1958 | December 31, 2016 |
| Sibley 1 | 48 MW | 1960 | December 31, 2019 |
| Sibley 2 | 51 MW | 1962 | December 31, 2019 |
| Montrose 2 | 164 MW | 1960 | December 31, 2021 |
| Montrose 3 | 176 MW | 1964 | December 31, 2021 |

While this decision will impact employees at Montrose, Lake Road and Sibley, the utility does not anticipate that any employees will lose jobs as a result. KCP&L will find job opportunities within the company for displaced employees.

"For decades, coal has been a reliable, very low cost way to provide power to our customers, and is one reason why our rates are lower than the national average," said Bassham. *"However, as our nation moves to a cleaner, more sustainable energy future, our industry is facing increasing environmental scrutiny and regulations, many of which are focused on coal-fired generation. Our commitment and focus is to move to a cleaner energy future for our region while balancing the cost impact to our customers."*

Today's announcement is part of the utility's larger plan to provide cleaner energy to

Schedule JAR-D-2

the region. KCP&L has the largest renewable energy and largest per capita energy efficiency portfolios of any investor-owned utility in the region. In addition, the utility recently made a number of new environmental investments and commitments, including the announcement of up to 400 MW of additional wind power and expanded energy-efficiency programs for customers.

For more information on KCP&L's sustainability efforts, visit www.kcpl.com/environment.

About Great Plains Energy:

Headquartered in Kansas City, Mo., Great Plains Energy Incorporated (NYSE: GXP) is the holding company of Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company, two of the leading regulated providers of electricity in the Midwest. Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company use KCP&L as a brand name. More information about the companies is available on the Internet at: www.greatplainsenergy.com or www.kcpl.com.

Forward-Looking Statements:

Statements made in this release that are not based on historical facts are forward-looking, may involve risks and uncertainties, and are intended to be as of the date when made. Forward-looking statements include, but are not limited to, the outcome of regulatory proceedings, cost estimates of capital projects and other matters affecting future operations. In connection with the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, Great Plains Energy and KCP&L are providing a number of important factors that could cause actual results to differ materially from the provided forward-looking information. These important factors include: future economic conditions in regional, national and international markets and their effects on sales, prices and costs; prices and availability of electricity in regional and national wholesale markets; market perception of the energy industry, Great Plains Energy and KCP&L; changes in business strategy, operations or development plans; the outcome of contract negotiations for goods and services; effects of current or proposed state and federal legislative and regulatory actions or developments, including, but not limited to, deregulation, re-regulation and restructuring of the electric utility industry; decisions of regulators regarding rates the Companies can charge for electricity; adverse changes in applicable laws, regulations, rules, principles or practices governing tax, accounting and

Schedule JAR-D-2

environmental matters including, but not limited to, air and water quality; financial market conditions and performance including, but not limited to, changes in interest rates and credit spreads and in availability and cost of capital and the effects on nuclear decommissioning trust and pension plan assets and costs; impairments of long-lived assets or goodwill; credit ratings; inflation rates; effectiveness of risk management policies and procedures and the ability of counterparties to satisfy their contractual commitments; impact of terrorist acts, including but not limited to cyber terrorism; ability to carry out marketing and sales plans; weather conditions including, but not limited to, weather-related damage and their effects on sales, prices and costs; cost, availability, quality and deliverability of fuel; the inherent uncertainties in estimating the effects of weather, economic conditions and other factors on customer consumption and financial results; ability to achieve generation goals and the occurrence and duration of planned and unplanned generation outages; delays in the anticipated in-service dates and cost increases of generation, transmission, distribution or other projects; Great Plains Energy's ability to successfully manage transmission joint venture; the inherent risks associated with the ownership and operation of a nuclear facility including, but not limited to, environmental, health, safety, regulatory and financial risks; workforce risks, including, but not limited to, increased costs of retirement, health care and other benefits; and other risks and uncertainties.

This list of factors is not all-inclusive because it is not possible to predict all factors. Other risk factors are detailed from time to time in Great Plains Energy's and KCP&L's quarterly reports on Form 10-Q and annual report on Form 10-K filed with the Securities and Exchange Commission. Each forward-looking statement speaks only as of the date of the particular statement. Great Plains Energy and KCP&L undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

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Schedule JAR-D-2

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June

KCP&L Continues Sustainability Commitment by Announcing Retirement of Six Units at Three Power Plants

KCP&L Continues Sustainability Commitment by Announcing Retirement of Six Units at Three Power Plants

6/2/2017

Media Contact:

KCP&L 24-hour Media Hotline
(816) 392-9455

KANSAS CITY, Mo. (June 2, 2017) — Kansas City Power & Light Company (KCP&L) announces its plans to retire six generating units at the company's Montrose, Lake Road and Sibley Stations. These actions further the company's commitment to a sustainable energy future and balanced generation portfolio.

"When these power plants started operation more than 50 years ago, coal was the primary means of producing energy. Today, as part of our diverse portfolio, we have cleaner ways to generate the energy our customers need," said Terry Bassham, President and CEO of Great Plains Energy and KCP&L. "After considering many options, it is clear that retiring units at Montrose, Lake Road and Sibley is the most cost-effective way to meet our customers' energy needs as we continue to move to a more sustainable energy future."

In 2015, KCP&L announced the company was considering retiring the coal units or converting them to an alternative fuel source at these plants. One coal-fired unit at the

Schedule JAR-D-3

Lake Road Station was converted to natural gas in 2016. Since that time, several emerging industry trends and changing circumstances led the company to announce its plans to retire the six generating units.

A number of factors contributed to the decision to retire these units, including:

- **Reduction in wholesale electricity market prices.** The value of energy produced by these plants has dropped in recent years, primarily driven by new wind generation and lower natural gas prices.
- **Near-term capacity needs.** KCP&L does not anticipate needing new capacity for many years with expected relatively flat long-term peak load growth. In addition, the amount of reserve generating capacity the company is required to carry has been reduced.
- **Plant age.** The impacted units are older, with all beginning service between 1960-1969. Making costly investments in the units does not make financial sense when compared to other generation sources.
- **Expected environmental compliance costs.** It is not economic to retrofit these plants with the controls necessary to meet expected environmental requirements.

Wind energy sources have become a much more economic generation resource for the region. According to the Southwest Power Pool, of which KCP&L is a member, energy generation from wind has increased 30 percent year-over-year in 2016. KCP&L announced plans in 2016 to purchase an additional 500 megawatts (MW) of power from two new wind facilities at Osborn and Rock Creek. In 2017, the company is set to increase its renewable portfolio to more than 1,450 MW, or greater than 20 percent of KCP&L's total generating capacity needs.

"In addition to our substantial renewable energy portfolio, KCP&L has the largest per capita energy efficiency portfolio of any investor-owned utility in the region," said Bassham. "By retiring these plants, KCP&L is taking another step forward in our plan to provide cleaner, cost effective energy to our customers."

KCP&L intends to retire all the Montrose and Sibley coal units by December 31, 2018. The Lake Road natural gas unit will be retired by December 31, 2019. Lake Road's steam operations are not impacted by today's announcement. KCP&L is committed to making every reasonable effort to find job opportunities within the company for employees currently working at these plants.

Timeline for Retirement:

Schedule JAR-D-3

| Generating Unit | Capacity | In-service | Retire by |
|------------------------|-----------------|-------------------|------------------|
| Lake Road 4/6 | 97 MW | 1967 | Dec. 31, 2019 |
| Montrose 2 | 164 MW | 1960 | Dec. 31, 2018 |
| Montrose 3 | 176 MW | 1964 | Dec. 31, 2018 |
| Sibley 1 | 48 MW | 1960 | Dec. 31, 2018 |
| Sibley 2 | 51 MW | 1962 | Dec. 31, 2018 |
| Sibley 3 | 364 MW | 1969 | Dec. 31, 2018 |

For more information on KCP&L's sustainability efforts, visit www.kcpl.com/environment.

####

About Great Plains Energy:

Headquartered in Kansas City, Mo., Great Plains Energy Incorporated (NYSE: GXP) is the holding company of Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company, two of the leading regulated providers of electricity in the Midwest. Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company use KCP&L as a brand name. More information about the companies is available on the Internet at: www.greatplainsenergy.com or www.kcpl.com.

Forward-Looking Statements:

Statements made in this release that are not based on historical facts are forward-looking, may involve risks and uncertainties, and are intended to be as of the date when made. Forward-looking statements include, but are not limited to, the outcome of regulatory proceedings, cost estimates of capital projects and other matters affecting future operations. In connection with the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, Great Plains Energy and KCP&L are providing a number of important factors that could cause actual results to differ materially from the provided forward-looking information. These important factors include: future economic conditions in regional, national and international markets and their effects on sales, prices and costs; prices and availability of electricity in regional and national wholesale markets; market perception of the energy industry,

Schedule JAR-D-3

Great Plains Energy and KCP&L; changes in business strategy, operations or development plans; the outcome of contract negotiations for goods and services; effects of current or proposed state and federal legislative and regulatory actions or developments, including, but not limited to, deregulation, re-regulation and restructuring of the electric utility industry; decisions of regulators regarding rates the Companies can charge for electricity; adverse changes in applicable laws, regulations, rules, principles or practices governing tax, accounting and environmental matters including, but not limited to, air and water quality; financial market conditions and performance including, but not limited to, changes in interest rates and credit spreads and in availability and cost of capital and the effects on nuclear decommissioning trust and pension plan assets and costs; impairments of long-lived assets or goodwill; credit ratings; inflation rates; effectiveness of risk management policies and procedures and the ability of counterparties to satisfy their contractual commitments; impact of terrorist acts, including but not limited to cyber terrorism; ability to carry out marketing and sales plans; weather conditions including, but not limited to, weather-related damage and their effects on sales, prices and costs; cost, availability, quality and deliverability of fuel; the inherent uncertainties in estimating the effects of weather, economic conditions and other factors on customer consumption and financial results; ability to achieve generation goals and the occurrence and duration of planned and unplanned generation outages; delays in the anticipated in-service dates and cost increases of generation, transmission, distribution or other projects; Great Plains Energy's ability to successfully manage transmission joint venture; the inherent risks associated with the ownership and operation of a nuclear facility including, but not limited to, environmental, health, safety, regulatory and financial risks; workforce risks, including, but not limited to, increased costs of retirement, health care and other benefits; and other risks and uncertainties.

This list of factors is not all-inclusive because it is not possible to predict all factors. Other risk factors are detailed from time to time in Great Plains Energy's and KCP&L's quarterly reports on Form 10-Q and annual report on Form 10-K filed with the Securities and Exchange Commission. Each forward-looking statement speaks only as of the date of the particular statement. Great Plains Energy and KCP&L undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

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ER-2018-0145
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KANSAS CITY POWER & LIGHT COMPANY
and
KANSAS CITY POWER LIGHT
GREATER OPERATIONS COMPANY

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HAS BEEN DEEMED

“CONFIDENTIAL”

IN ITS ENTIRETY



SPP 2017 RESOURCE ADEQUACY REPORT

Published on June 19th, 2017

By Resource Adequacy Coordination

Schedule JAR-D-5

1/67

REVISION HISTORY

| DATE OR VERSION NUMBER | AUTHOR | CHANGE DESCRIPTION | COMMENTS |
|---------------------------|--------|-----------------------|----------|
| | | | |
| | | | |

CONTENTS

| | |
|--|------|
| Revision History | i |
| Overview and Assumptions | 1 |
| Definitions | 2 |
| SPP Highlights | 3 |
| SPP Current and Five-Year Outlook..... | 3 |
| Fuel Type Summary..... | 4 |
| Load Responsible Entities..... | 5 |
| LRE Demand and Capacity Outlook | 7-62 |

OVERVIEW AND ASSUMPTIONS

SPP submitted Tariff revisions to implement a Resource Adequacy Requirement (RAR) on March 3, 2017 ([ER17-1098](#)).

Attachment AA requires a Load Responsible Entity (LRE) to maintain capacity required to meet its load and planning reserve obligations. No later than June 15th of each year, a final report on the status of each LRE's compliance with the RAR for the upcoming Summer Season will be posted on the SPP website.

This report will assess resource adequacy across the SPP Balancing Authority (BA) for the 2017 Summer Season, and provide a five-year outlook of the BA and LREs, beginning with the 2018 Summer Season. The data for this report originates from the LRE and Generator Owner (GO) submitted Workbooks.

The reserve margin calculation is an industry planning metric used to examine future resource adequacy. This deterministic approach examines the forecasted Net Peak Demand (load) and the availability of existing resources to serve the forecasted Net Peak Demand for the current Summer Season and a five-year outlook.

Net Peak Demand projections, or load forecasts, are provided by each LRE. Load forecasts include peak hourly load, or Peak Demand, for the Summer Season of each year. Peak Demand projections are based on normal weather (50/50 distribution) and provided on a non-coincident basis.

DEFINITIONS

Firm Capacity

The projected accredited capacity of an LRE's commercially operable generating units, or portions of generating units, adjusted to reflect purchases and sales of accredited capacity with another party, and that is supported by firm transmission service to the LRE's load, or is Deliverable Capacity to meet the PRM portion of the Resource Adequacy Requirement.

Firm Power

Power sales and purchases deliverable with firm transmission service where the seller assumes the obligation to serve the purchaser's load with capacity, energy, and planning reserves that must be continuously available in a manner comparable to power delivered to native load customers.

Load Responsible Entity

An Asset Owner represented in the Integrated Marketplace with a registered physical asset that is either a) load or b) an Export Interchange Transaction as specified in Section 5.4 of Attachment AA.

Net Peak Demand

The forecasted Peak Demand less the a) projected impacts of demand response programs and behind-the-meter generation that are controllable and dispatchable and not registered as a Resource and b) contract amount of Firm Power purchased under agreements in effect as of the time of the forecasted Peak Demand, plus the contract amount of Firm Power sold to others in effect as of the time of the forecasted Peak Demand

Peak Demand

The highest demand including transmission losses for energy measured over a one clock hour period

Planning Reserve Margin

The Planning Reserve Margin ("PRM") shall be twelve percent (12%). If an LRE's Firm Capacity is comprised of at least seventy-five percent (75%) hydro-based generation, then such PRM shall be nine point eight nine percent (9.89%).

Resource Adequacy Requirement

The Resource Adequacy Requirement is equal to the LRE's Summer Season Net Peak Demand plus its Summer Season Net Peak Demand multiplied by the PRM.

Summer Season

June 1st through September 30th of each year.

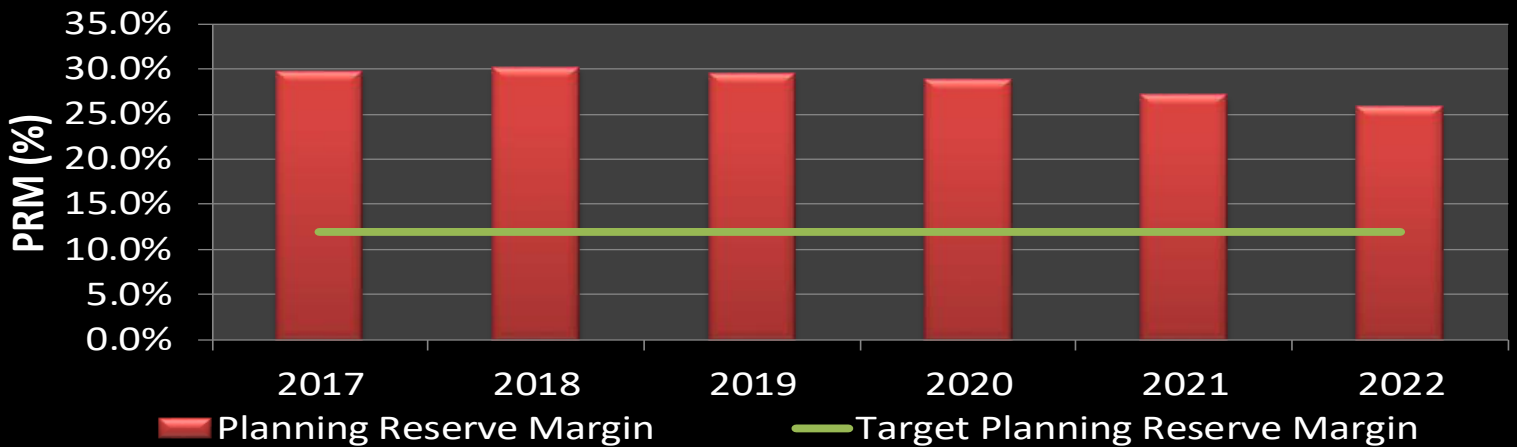
SPP HIGHLIGHTS

The Southwest Power Pool (SPP) BA covers 575,000 square miles and encompasses all or parts of Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas and Wyoming. The SPP footprint has approximately 61,000 miles of transmission lines, 756 generating plants, and 4,811 transmission-class substations, and it serves a population of 18 million people.

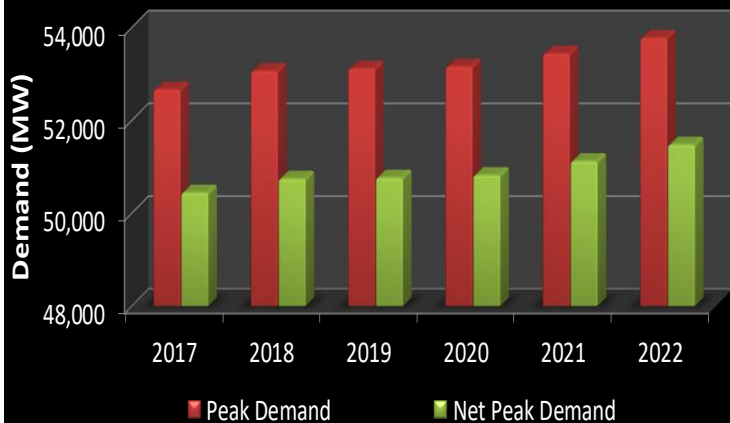


- SPP's PRM target is 12%
- The six year assessment period starting in 2017 based on Firm Capacity is projected to be 29.7% and decreases to 25.9% by 2022
- Six year (2017-2022) peak demand average annual growth rate is 1.1%

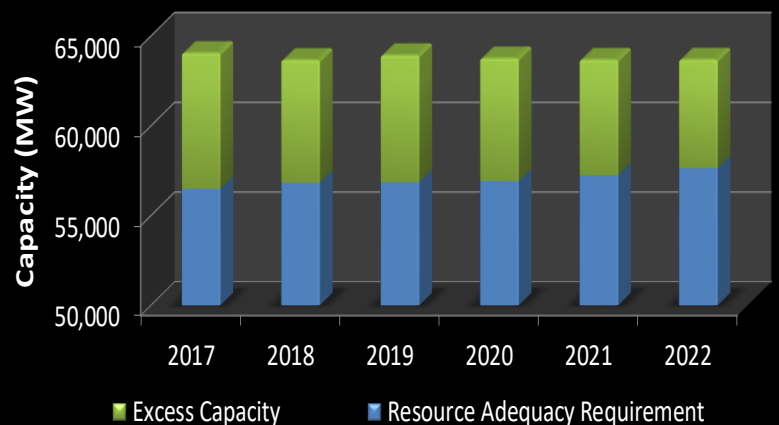
Planning Reserve Margin Summary



Demand Summary



Firm Capacity Summary

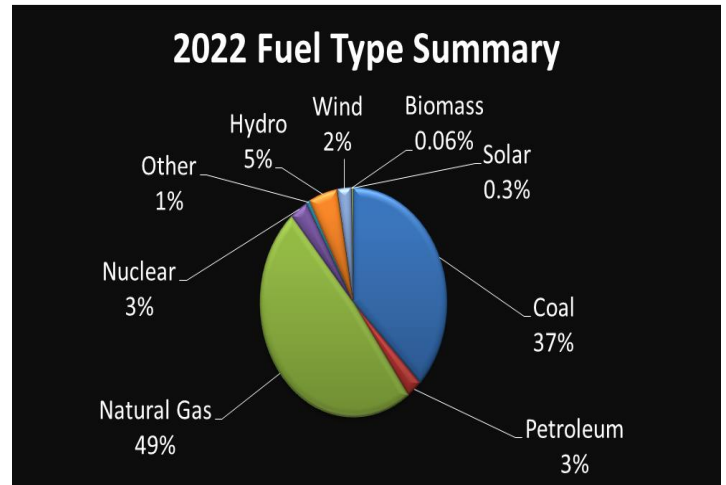
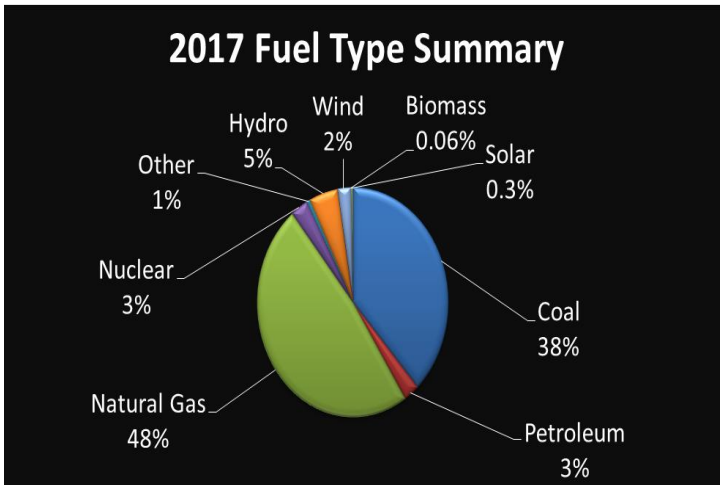


SPP CURRENT AND FIVE-YEAR OUTLOOK

| Demand Summary | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|--------|--------|--------|--------|--------|--------|
| Peak Demand (Forecasted) | 52,665 | 53,065 | 53,116 | 53,158 | 53,440 | 53,779 |
| Controllable and Dispatchable DR - Available | 663 | 708 | 736 | 744 | 730 | 725 |
| Controllable and Dispatchable DEG - Available | 164 | 160 | 161 | 142 | 139 | 141 |
| Firm Power Purchases | 1,655 | 1,655 | 1,553 | 1,551 | 1,551 | 1,551 |
| Firm Power Sales | 260 | 200 | 100 | 99 | 100 | 115 |
| Net Peak Demand (Forecasted) | 50,444 | 50,743 | 50,767 | 50,821 | 51,121 | 51,477 |
| Firm Capacity (Units - MW) | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Other Capacity Adjustments - Additions | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | 397 | 41 | 41 | 5 | 5 | 5 |
| Confirmed Retirements | 16 | 388 | 1,170 | 1,379 | 1,469 | 1,469 |
| Unconfirmed Retirements | 0 | 83 | 236 | 236 | 236 | 478 |
| Scheduled Outages | 520 | 566 | 45 | 0 | 0 | 0 |
| Transmission Limitations | 14 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | 277 | 277 | 277 | 279 | 279 | 179 |
| Firm Capacity Sales | 674 | 549 | 934 | 934 | 534 | 534 |
| Firm Capacity Resources | 65,390 | 65,815 | 64,613 | 64,288 | 64,142 | 64,081 |
| Firm Capacity Resources (Other) | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity (e.g. 65,390+674+277-14-520-397) | 65,410 | 66,035 | 65,738 | 65,496 | 64,951 | 64,790 |
| Planning Reserve Margin (e.g. 65,390-50,444/65,390) | 29.7% | 30.1% | 29.5% | 28.9% | 27.1% | 25.9% |
| Resource Adequacy Requirement (e.g. 50,444 *12%) | 56,497 | 56,832 | 56,859 | 56,919 | 57,256 | 57,655 |
| SPP Excess Capacity | 8,913 | 9,203 | 8,879 | 8,577 | 7,695 | 7,135 |

FUEL TYPE SUMMARY

The Firm Capacity is based on the available LRE and GO excess generation for the Summer Season. The amount of confirmed retirements increases from 16 MW to 1,469 MW by 2022, with coal accounting for 61% of the retirements and natural gas for the remaining 39%.



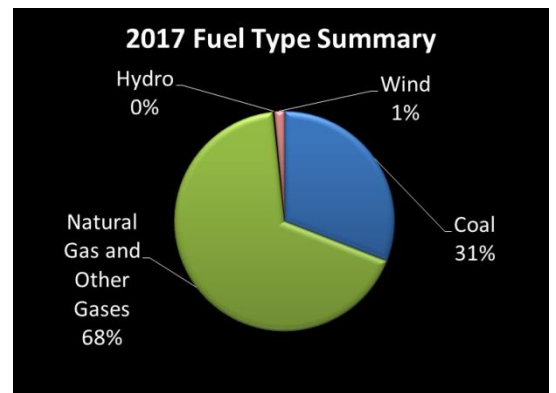
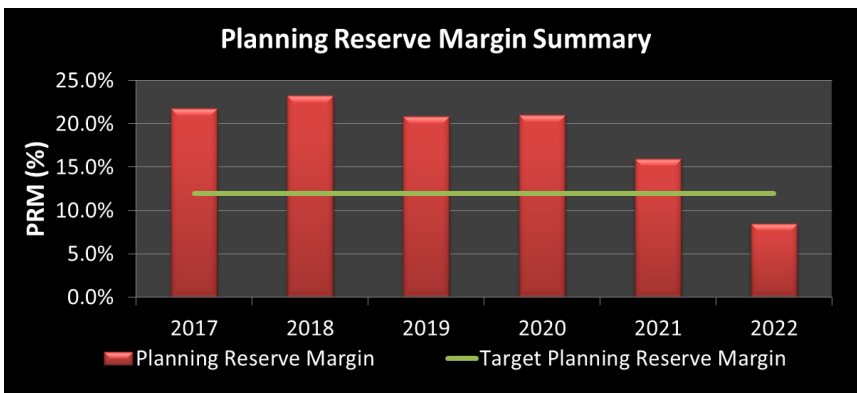
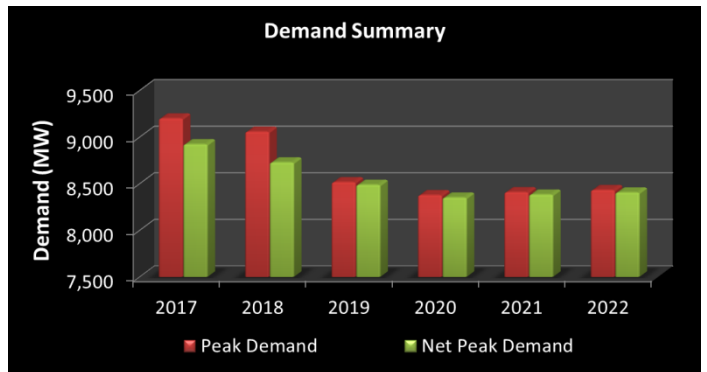
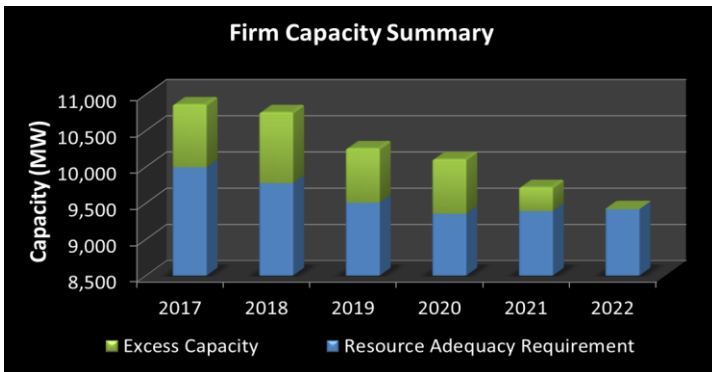
| Firm Capacity Resources | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--------------------------------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|
| Biomass | MW | 39 | 39 | 39 | 39 | 39 | 39 |
| Coal | MW | 24,976 | 25,095 | 24,007 | 23,911 | 23,911 | 23,911 |
| Hydro | MW | 3,159 | 3,159 | 3,159 | 3,159 | 3,159 | 3,159 |
| Natural Gas | MW | 31,540 | 31,741 | 31,632 | 31,374 | 31,228 | 31,167 |
| Nuclear | MW | 1,938 | 2,005 | 2,005 | 2,005 | 2,005 | 2,005 |
| Other | MW | 366 | 366 | 366 | 366 | 366 | 366 |
| Petroleum | MW | 1,726 | 1,726 | 1,707 | 1,707 | 1,707 | 1,707 |
| Solar | MW | 194 | 194 | 194 | 194 | 194 | 194 |
| Wind | MW | 1,452 | 1,490 | 1,503 | 1,533 | 1,533 | 1,533 |
| Firm Capacity Resources | MW | 65,390 | 65,815 | 64,613 | 64,288 | 64,142 | 64,081 |

LOAD RESPONSIBLE ENTITIES

American Electric Power
Arkansas Electric Cooperative Corporation
Basin Electric Power Cooperative
Carthage Water & Electric Plant (*Did not meet the RAR for the 2017 Summer Season*)
City of Beatrice Nebraska
City of Chanute
City of Fremont
City of Grand Island Nebraska Utilities
City of Hastings Nebraska Utilities
City of Malden Board of Public Works
City of Neligh
City of Piggott Municipal Light & Water
City of Poplar Bluff Municipal Utilities
City of Superior Nebraska
City of West Plains Board of Public Works
City Utilities of Springfield
Empire District Electric Company
ETEC/NTEC/Tex-La
Falls City Utilities
Golden Spread Electric Cooperative
Grand River Dam Authority
Greater Missouri Operations Company (KCP&L)
Harlan Municipal Utilities
Heartland Consumers Power District
Independence Power & Light
Kansas City Board of Public Utilities
Kansas City Power & Light
Kansas Municipal Energy Agency – EMP1
Kansas Municipal Energy Agency – EMP2
Kansas Municipal Energy Agency – EMP3
Kansas Municipal Energy Agency – Eudora
Kansas Municipal Energy Agency – GC
Kansas Municipal Energy Agency – Meade
Kansas Power Pool
Kennett Board of Public Works
Lincoln Electric System
MidAmerican Energy Company
Midwest Energy
Missouri Joint Municipal Electric Utility Commission
Missouri River Energy Services
Municipal Energy Agency of Nebraska

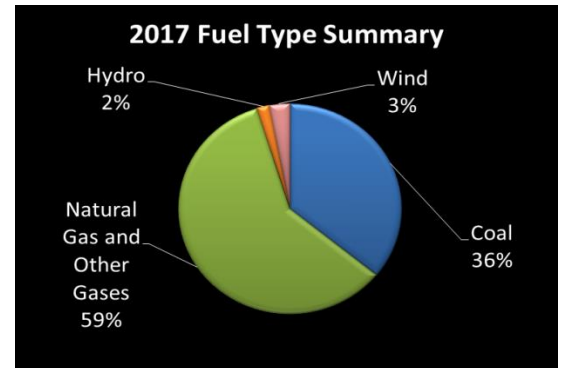
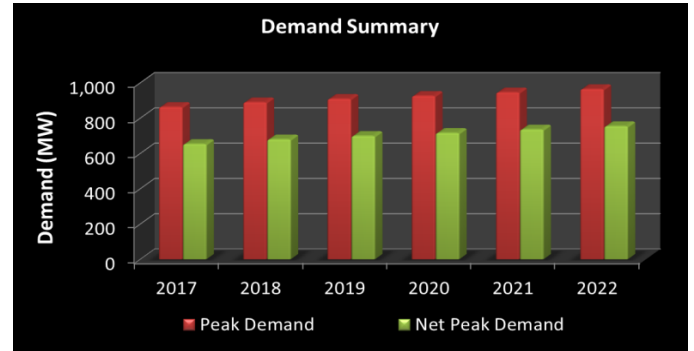
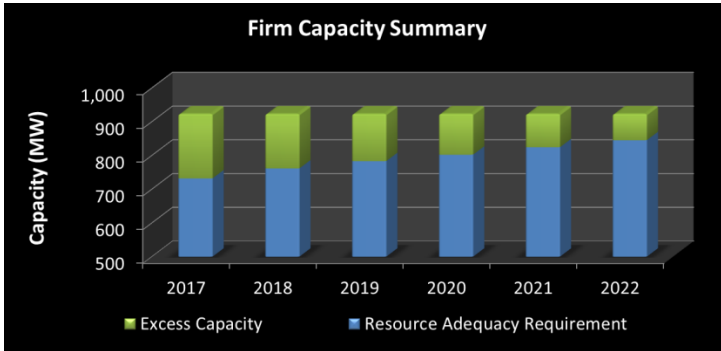
Nebraska City Utilities
Nebraska Public Power District
Northwestern Energy
NSP Energy Marketing (*Not included due to all load being served with Firm Power contracts*)
Oklahoma Gas & Electric Company
Oklahoma Municipal Power Authority
Omaha Public Power District
Paragould Light and Water Commission (*Not included due to all load being served with Firm Power contracts*)
People's Electric Cooperative
South Sioux City Nebraska
Southwestern Power Administration
Southwestern Public Service Company
Sunflower Electric Power Corporation
West Texas Municipals
Westar Energy
Western Area Power Administration
Western Farmers Energy Services

AMERICAN ELECTRIC POWER



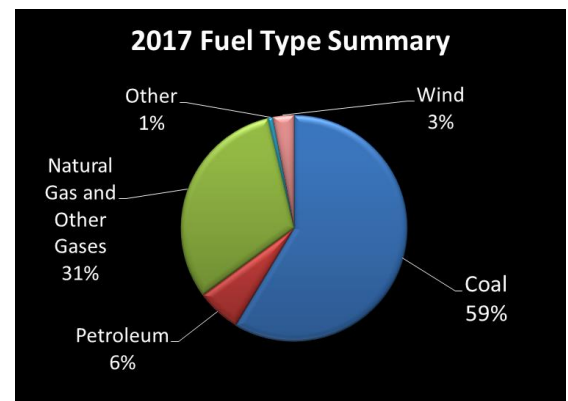
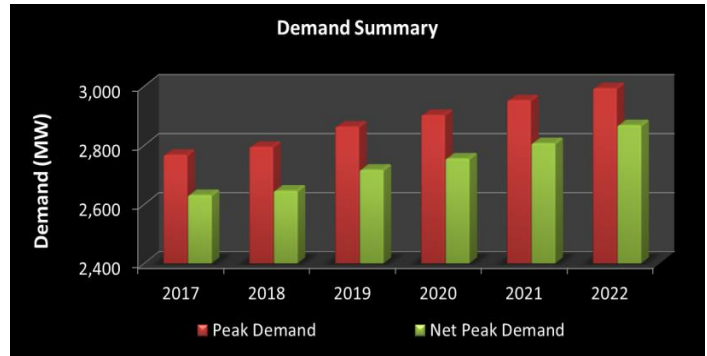
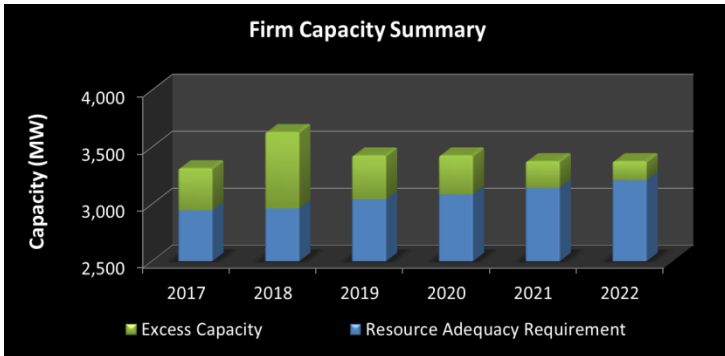
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|---------------|---------------|---------------|---------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 8,954 | 8,954 | 8,954 | 8,808 | 8,752 | 8,681 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 1,945 | 1,837 | 1,339 | 1,299 | 969 | 439 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 36 | 36 | 36 | 0 | 0 | 0 | |
| Firm Capacity | MW | 10,863 | 10,755 | 10,257 | 10,107 | 9,721 | 9,120 | |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 9,201 | 9,058 | 8,516 | 8,378 | 8,410 | 8,432 | |
| Firm Power Purchases | MW | 213 | 213 | 111 | 109 | 109 | 109 | |
| Firm Power Sales | MW | 48 | 0 | 200 | 200 | 200 | 200 | |
| Controllable and Dispatchable DR - Available | MW | 112 | 117 | 117 | 117 | 117 | 117 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 8,924 | 8,729 | 8,489 | 8,352 | 8,384 | 8,406 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 34 | 65 | 100 | 127 | 150 | 162 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | 9,995 | 9,776 | 9,507 | 9,354 | 9,390 | 9,415 | |
| Excess Capacity | MW | 868 | 979 | 750 | 753 | 331 | 0 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 295 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Planning Reserve Margin | % | 21.7% | 23.2% | 20.8% | 21.0% | 15.9% | 8.5% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

ARKANSAS ELECTRIC COOPERATIVE CORPORATION



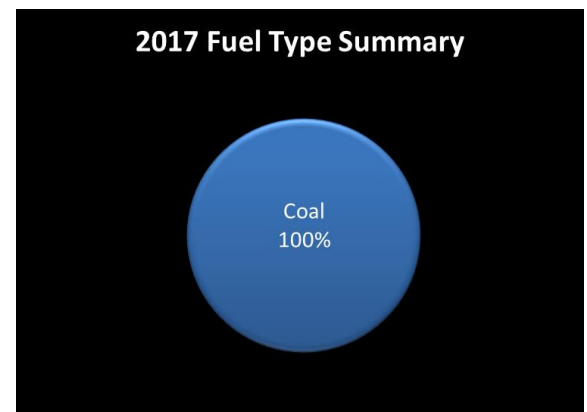
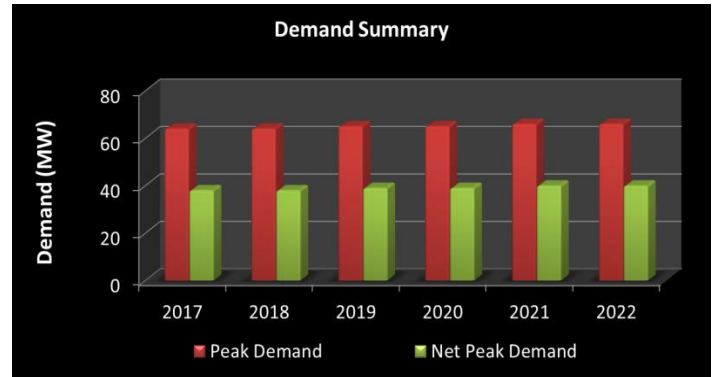
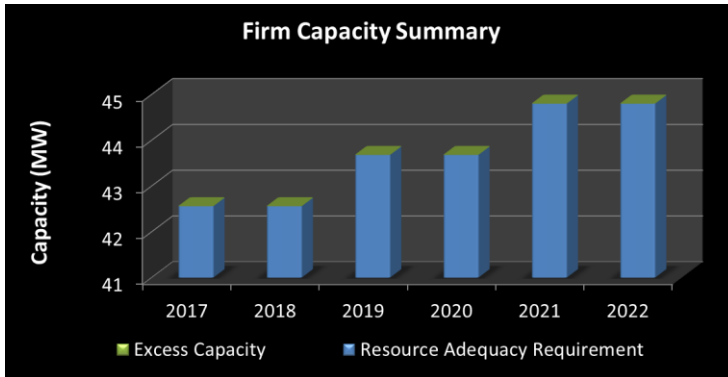
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------------|
| Firm Capacity Resources | MW | 726 | 726 | 726 | 726 | 726 | 726 | 726 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 197 | 197 | 197 | 197 | 197 | 197 | 197 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 923 | 923 | 923 | 923 | 923 | 923 | 923 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 864 | 890 | 909 | 926 | 946 | 965 | |
| Firm Power Purchases | MW | 189 | 189 | 189 | 189 | 189 | 189 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 17 | 17 | 17 | 17 | 17 | 17 | |
| Other Controllable and Dispatchable DEG - Available | MW | 4 | 4 | 4 | 4 | 4 | 4 | |
| Net Peak Demand (Forecasted) | MW | 654 | 680 | 699 | 716 | 736 | 755 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 86 | 89 | 91 | 93 | 95 | 96 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 732 | 762 | 783 | 802 | 824 | 845 | |
| Excess Capacity | MW | 191 | 162 | 140 | 121 | 99 | 78 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | % | 41.2% | 35.8% | 32.0% | 28.9% | 25.4% | 22.3% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

BASIN ELECTRIC POWER COOPERATIVE



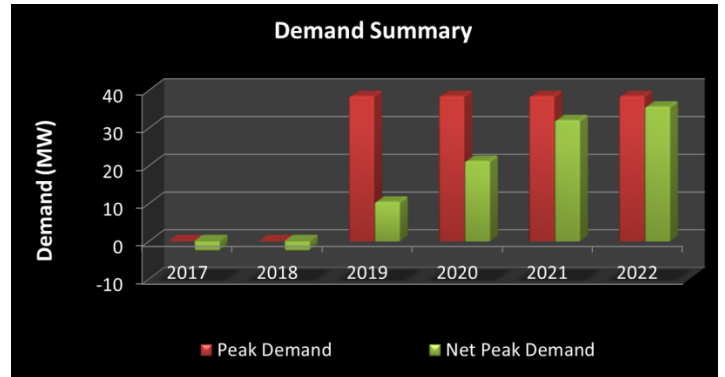
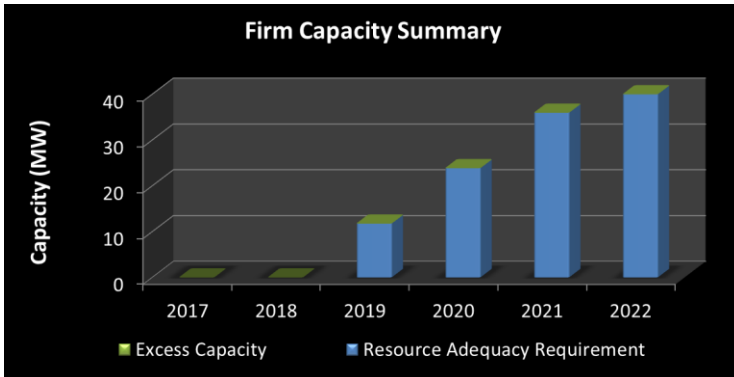
| | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|
| Firm Capacity Summary | | | | | | | |
| Firm Capacity Resources | MW | 3,250 | 3,416 | 3,207 | 3,208 | 3,208 | 3,208 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 66 | 218 | 221 | 221 | 170 | 170 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 3,316 | 3,634 | 3,428 | 3,429 | 3,378 | 3,378 |
| Demand Summary | | | | | | | |
| Peak Demand (Forecasted) | MW | 2,768 | 2,795 | 2,863 | 2,903 | 2,953 | 2,993 |
| Firm Power Purchases | MW | 240 | 240 | 240 | 240 | 240 | 240 |
| Firm Power Sales | MW | 110 | 98 | 100 | 99 | 100 | 115 |
| Controllable and Dispatchable DR - Available | MW | 6 | 6 | 6 | 6 | 6 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 2,631 | 2,646 | 2,717 | 2,756 | 2,807 | 2,868 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | | | | | | |
| Resource Adequacy Requirement | MW | 2,947 | 2,964 | 3,043 | 3,086 | 3,144 | 3,212 |
| Excess Capacity | MW | 369 | 670 | 384 | 343 | 234 | 165 |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Planning Reserve Margin | | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% |
| | % | 26.0% | 37.3% | 26.1% | 24.4% | 20.3% | 17.8% |

CARTHAGE WATER & ELECTRIC PLANT



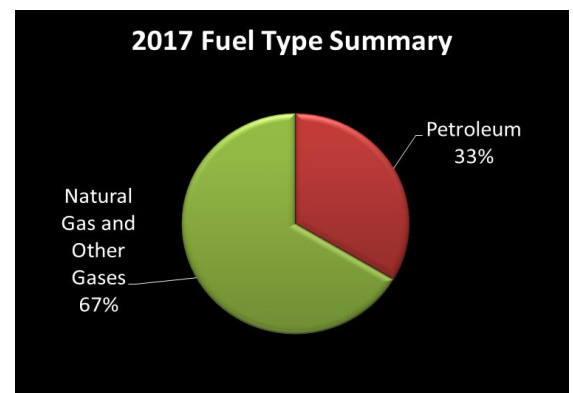
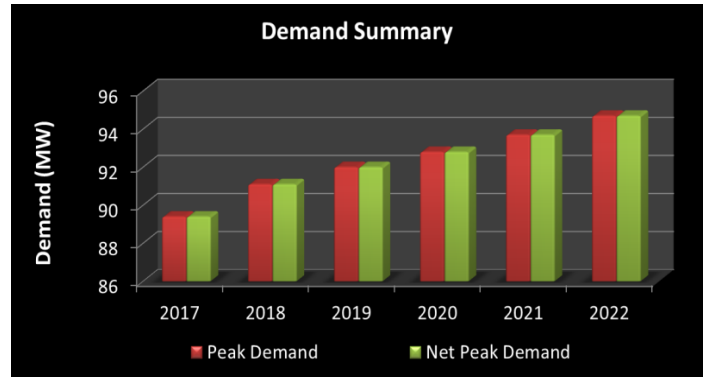
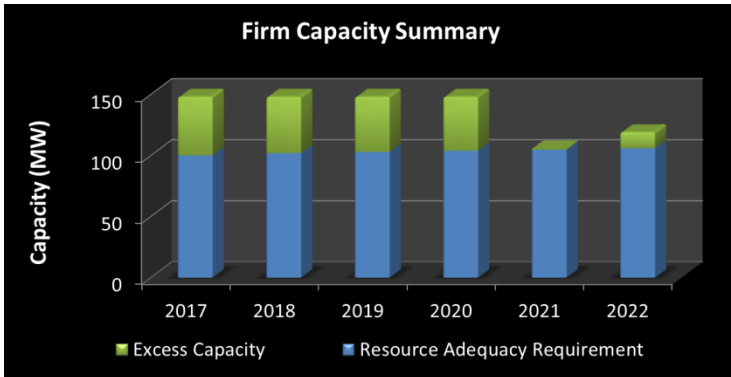
| | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Firm Capacity Summary | | | | | | | |
| Firm Capacity Resources | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 32 | 32 | 32 | 32 | 32 | 32 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 32 | 32 | 32 | 32 | 32 | 32 |
| Demand Summary | | | | | | | |
| Peak Demand (Forecasted) | MW | 64 | 64 | 65 | 65 | 66 | 66 |
| Firm Power Purchases | MW | 7 | 7 | 7 | 7 | 7 | 7 |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 19 | 19 | 19 | 19 | 19 | 19 |
| Net Peak Demand (Forecasted) | MW | 38 | 38 | 39 | 39 | 40 | 40 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | | | | | | |
| Resource Adequacy Requirement | MW | 43 | 43 | 44 | 44 | 45 | 45 |
| Excess Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Deficient Capacity | MW | 11 | 11 | 12 | 12 | 13 | 13 |
| Planning Reserve Margin | | | | | | | |
| Planning Reserve Margin | % | -15.8% | -15.8% | -17.9% | -17.9% | -20.0% | -20.0% |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% |

CITY OF BEATRICE NEBRASKA



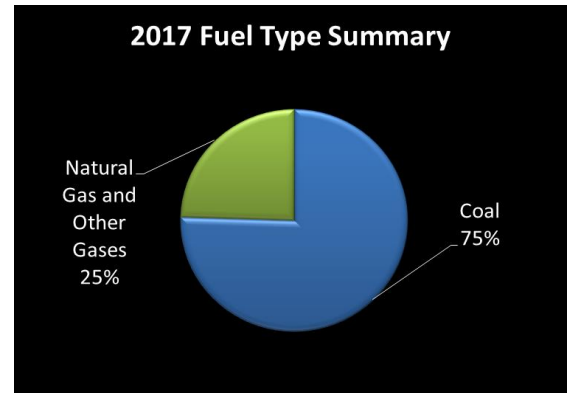
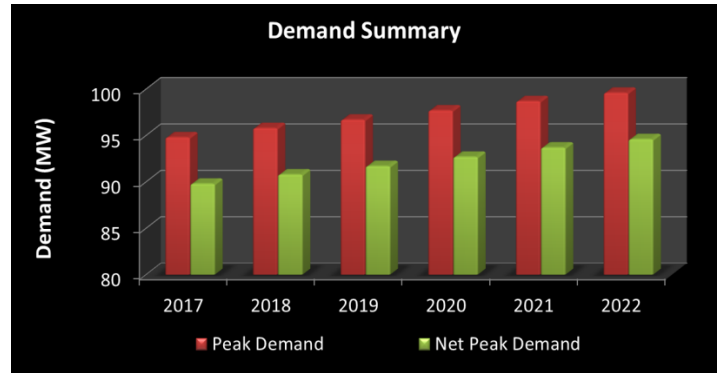
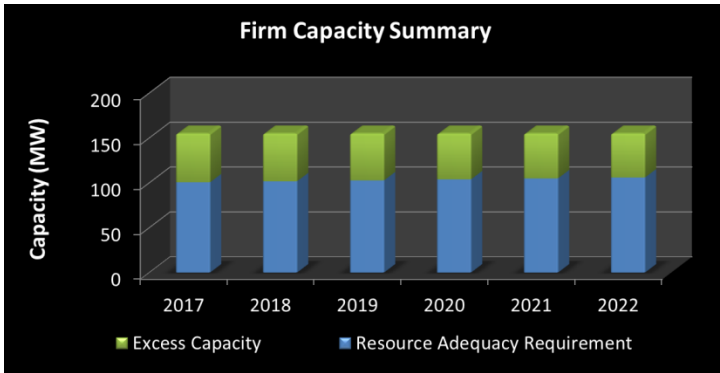
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Firm Capacity Resources | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 0 | 0 | 11 | 14 | 18 | 0 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 0 | 0 | 11 | 14 | 18 | 0 | |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 0 | 0 | 39 | 39 | 39 | 39 | |
| Firm Power Purchases | MW | 3 | 3 | 28 | 17 | 6 | 3 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | -3 | -3 | 11 | 21 | 32 | 36 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | --- | --- | 12 | 24 | 36 | 40 | |
| Excess Capacity | MW | --- | --- | 0 | 0 | 0 | 0 | |
| Deficient Capacity | MW | --- | --- | 1 | 10 | 18 | 40 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| SPP Target Planning Reserve Margin | % | --- | --- | 12.0% | 12.0% | 12.0% | 12.0% | |

CITY OF CHANUTE



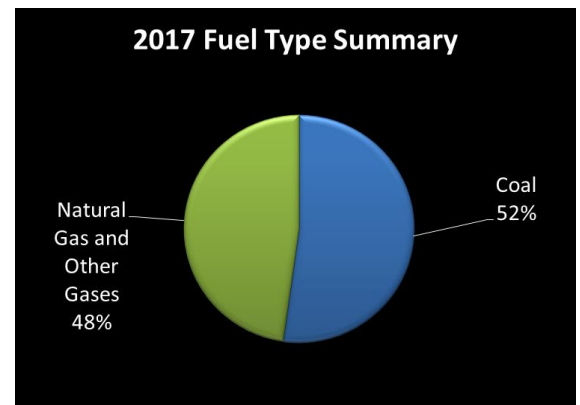
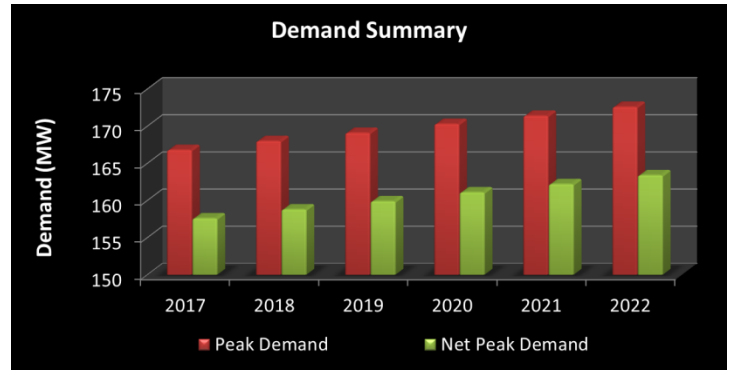
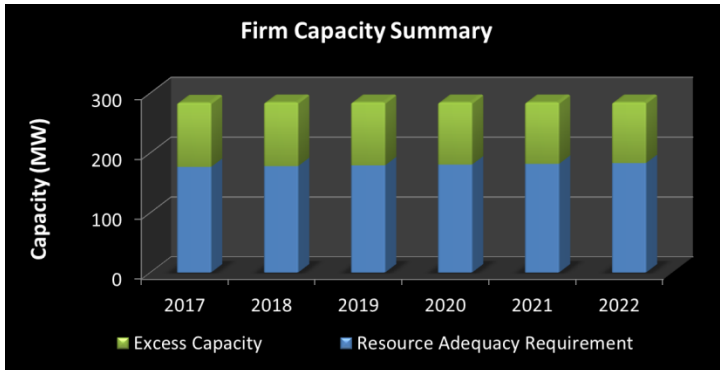
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 116 | 116 | 116 | 116 | 116 | 116 | 116 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 49 | 49 | 49 | 49 | 4 | 4 | 4 |
| Firm Capacity Sales | MW | 16 | 16 | 16 | 16 | 16 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 148 | 148 | 148 | 148 | 103 | 119 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 89 | 91 | 92 | 93 | 94 | 95 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 89 | 91 | 92 | 93 | 94 | 95 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 100 | 102 | 103 | 104 | 105 | 106 | |
| Excess Capacity | MW | 48 | 46 | 45 | 44 | 0 | 13 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 2 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 65.8% | 62.7% | 61.1% | 59.7% | 10.1% | 25.9% | |
| | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

CITY OF FREMONT



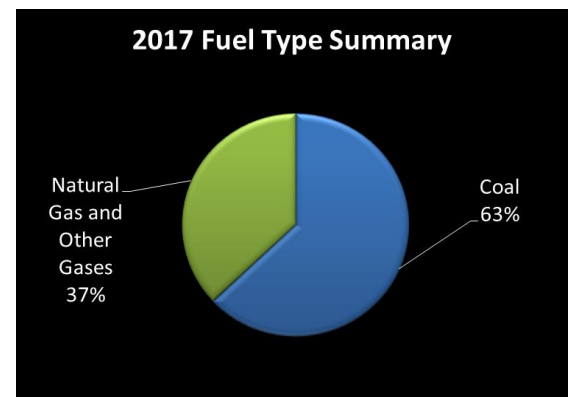
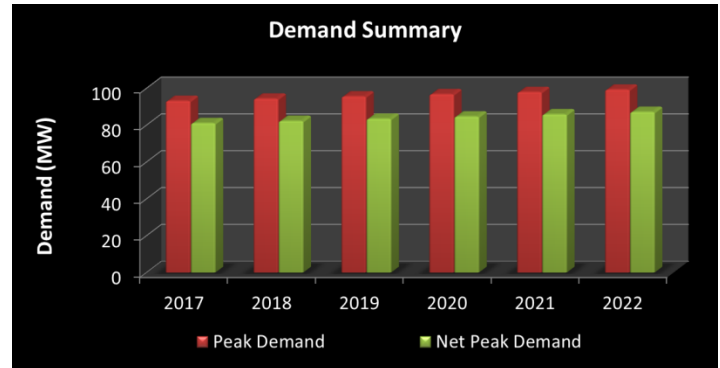
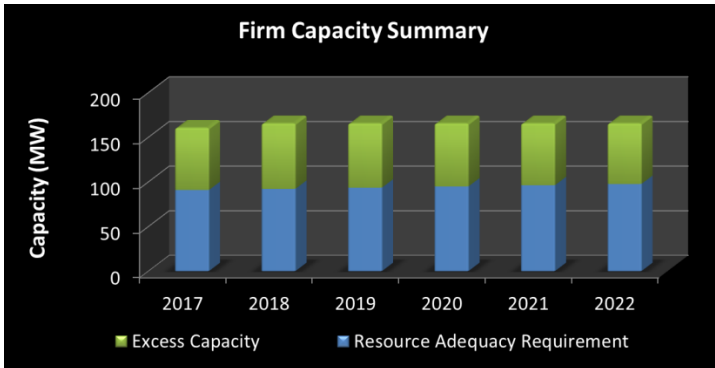
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 155 | 155 | 155 | 155 | 155 | 155 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 155 | 155 | 155 | 155 | 155 | 155 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 95 | 96 | 97 | 98 | 99 | 100 | |
| Firm Power Purchases | MW | 5 | 5 | 5 | 5 | 5 | 5 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 90 | 91 | 92 | 93 | 94 | 95 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 101 | 102 | 103 | 104 | 105 | 106 | |
| Excess Capacity | MW | 54 | 53 | 52 | 51 | 50 | 49 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

CITY OF GRAND ISLAND NEBRASKA UTILITIES



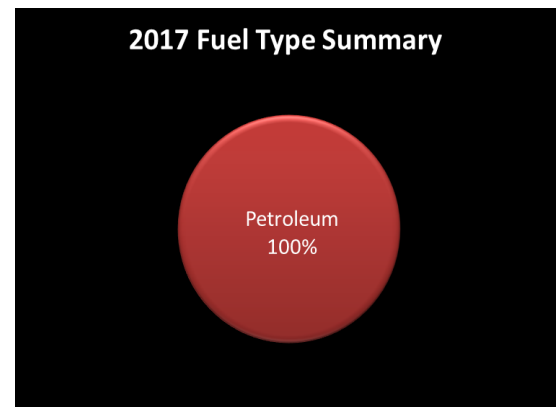
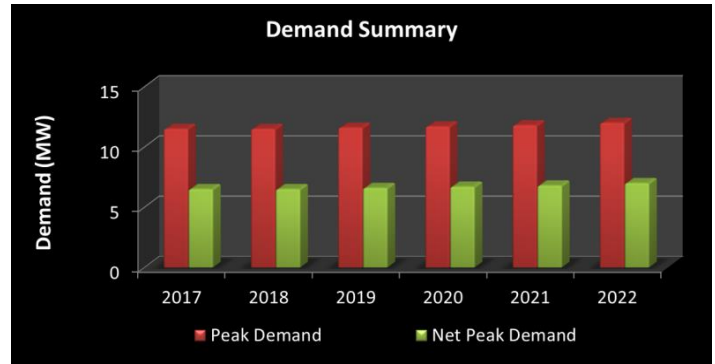
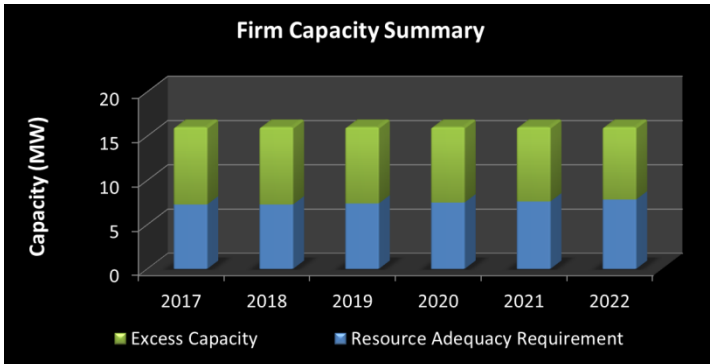
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------------|
| Firm Capacity Resources | MW | 251 | 251 | 251 | 251 | 251 | 251 | 251 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 33 | 34 | 34 | 34 | 34 | 34 | 34 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 284 | 284 | 284 | 284 | 284 | 284 | 284 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 167 | 168 | 169 | 170 | 171 | 173 | |
| Firm Power Purchases | MW | 9 | 9 | 9 | 9 | 9 | 9 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 158 | 159 | 160 | 161 | 162 | 163 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 177 | 178 | 179 | 180 | 182 | 183 | |
| Excess Capacity | MW | 107 | 107 | 105 | 104 | 103 | 101 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |
| | % | 80.1% | 79.1% | 77.9% | 76.5% | 75.3% | 74.1% | |

CITY OF HASTINGS NEBRASKA UTILITIES



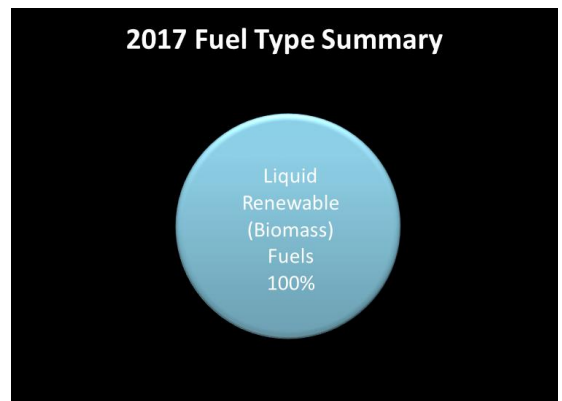
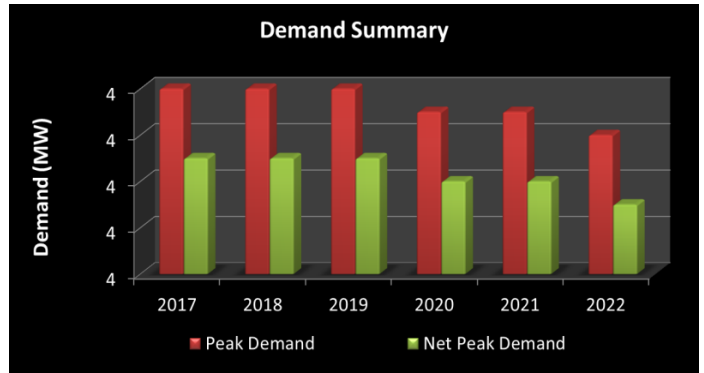
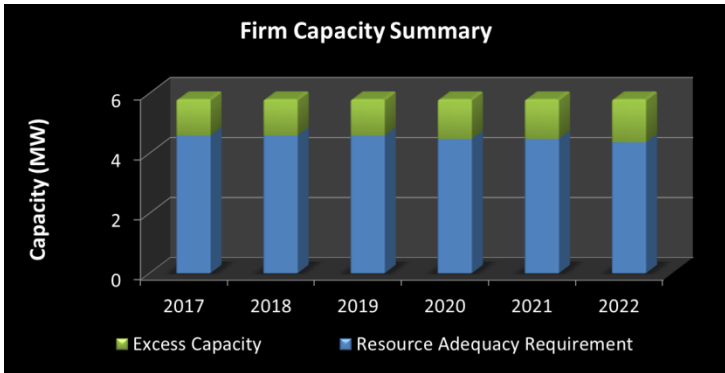
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------------|
| Firm Capacity Resources | MW | 160 | 165 | 165 | 165 | 165 | 165 | 165 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 160 | 165 | 165 | 165 | 165 | 165 | 165 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 93 | 94 | 96 | 97 | 98 | 99 | |
| Firm Power Purchases | MW | 12 | 12 | 12 | 12 | 12 | 12 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 81 | 82 | 84 | 85 | 86 | 87 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 91 | 92 | 94 | 95 | 96 | 98 | |
| Excess Capacity | MW | 70 | 73 | 72 | 71 | 69 | 68 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 97.8% | 101.0% | 98.1% | 95.3% | 92.5% | 89.7% | |
| | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

CITY OF MALDEN BOARD OF PUBLIC WORKS



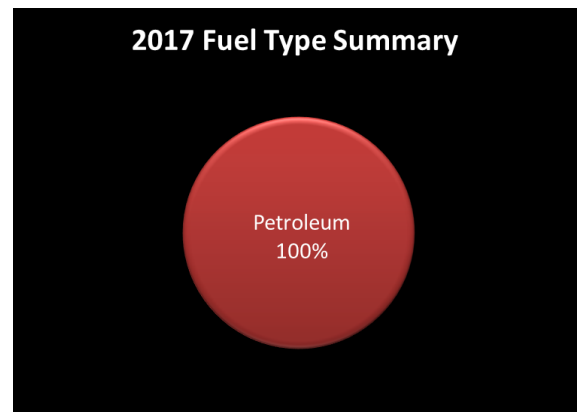
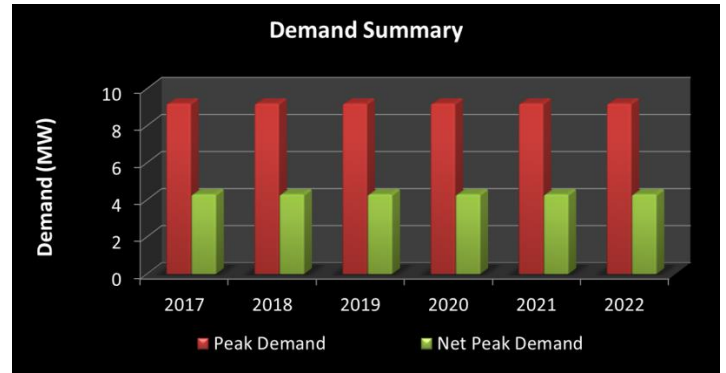
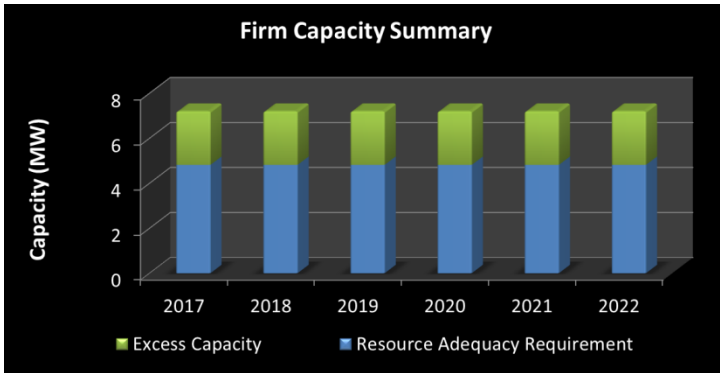
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Firm Capacity Resources | MW | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Firm Power Purchases | MW | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 7 | 7 | 7 | 8 | 8 | 8 | 8 |
| Excess Capacity | MW | 9 | 9 | 9 | 8 | 8 | 8 | 8 |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Planning Reserve Margin | | | | | | | | |
| Planning Reserve Margin | % | 146.2% | 146.2% | 142.4% | 138.8% | 135.3% | 128.6% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

CITY OF NELIGH



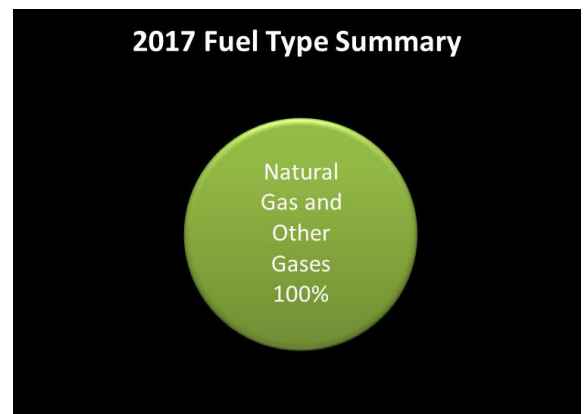
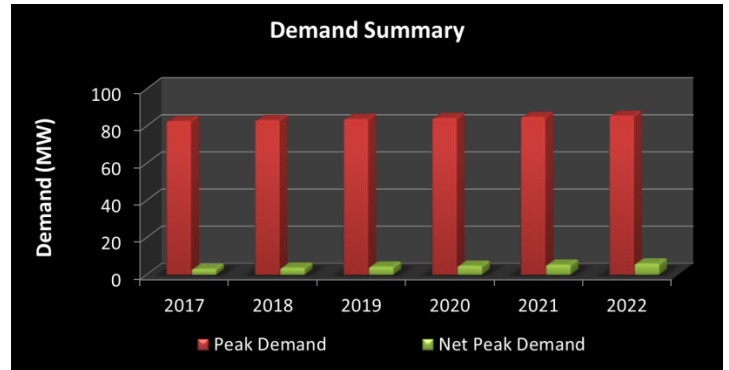
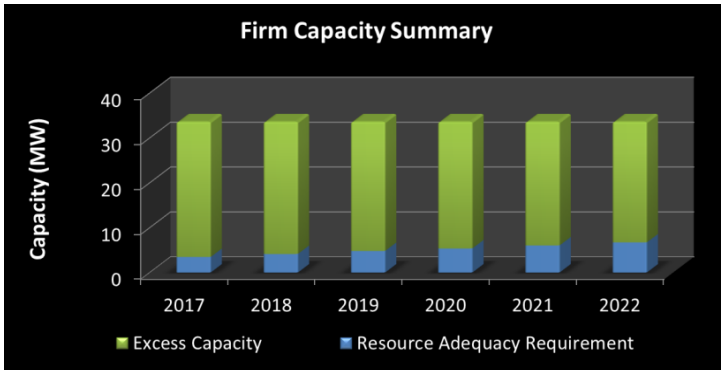
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|----------|----------|----------|----------|----------|----------|----------|
| Firm Capacity Resources | MW | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 5 | 5 | 5 | 4 | 4 | 4 | 4 |
| Excess Capacity | MW | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Planning Reserve Margin | | % | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| | | 41.5 | 41.5 | 41.5 | 45.0 | 45.0 | 48.7 | |

CITY OF PIGGOTT MUNICIPAL LIGHT & WATER



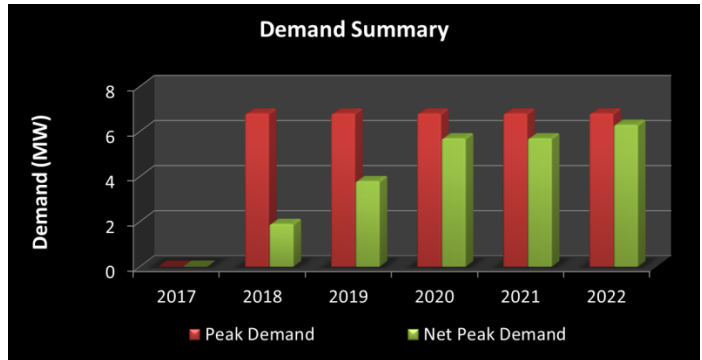
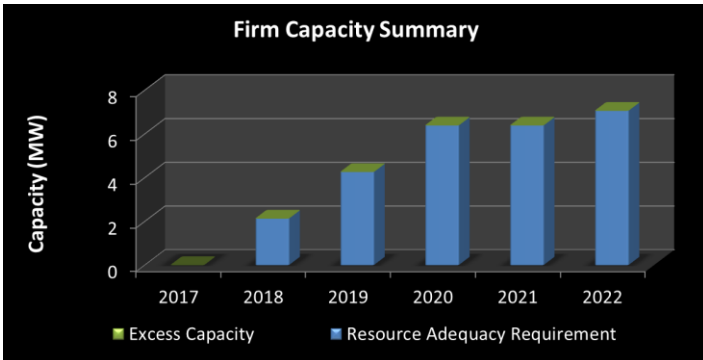
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|----------|----------|----------|----------|----------|----------|------|
| Firm Capacity Resources | MW | 7 | 7 | 7 | 7 | 7 | 7 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 7 | 7 | 7 | 7 | 7 | 7 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 9 | 9 | 9 | 9 | 9 | 9 | |
| Firm Power Purchases | MW | 5 | 5 | 5 | 5 | 5 | 5 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 4 | 4 | 4 | 4 | 4 | 4 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 5 | 5 | 5 | 5 | 5 | 5 | |
| Excess Capacity | MW | 2 | 2 | 2 | 2 | 2 | 2 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| Planning Reserve Margin | % | 67.4% | 67.4% | 67.4% | 67.4% | 67.4% | 67.4% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

CITY OF POPLAR BLUFF MUNICIPAL UTILITIES



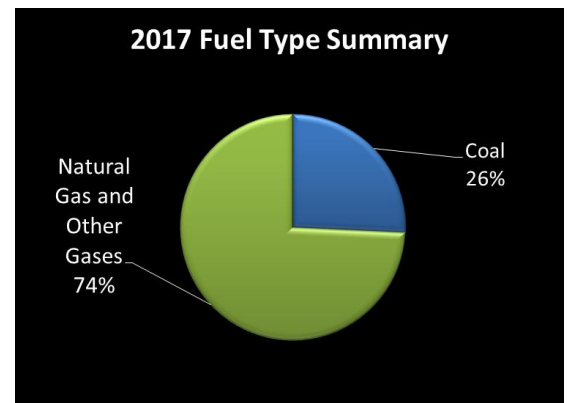
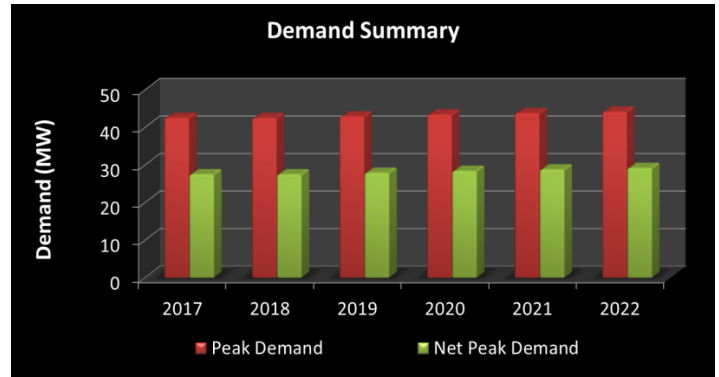
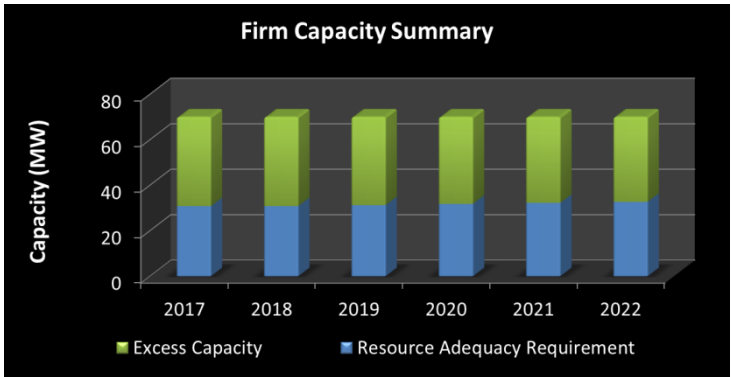
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Firm Capacity Resources | MW | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 83 | 83 | 84 | 84 | 85 | 86 | |
| Firm Power Purchases | MW | 80 | 80 | 80 | 80 | 80 | 80 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 3 | 4 | 4 | 5 | 5 | 6 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 3 | 4 | 5 | 5 | 6 | 7 | |
| Excess Capacity | MW | 30 | 29 | 29 | 28 | 28 | 27 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 983.9% | 808.1% | 681.4% | 600.0% | 522.2% | 460.0% | 12.0% |

CITY OF SUPERIOR NEBRASKA



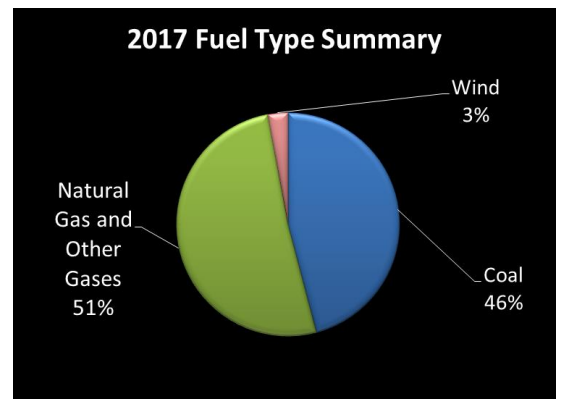
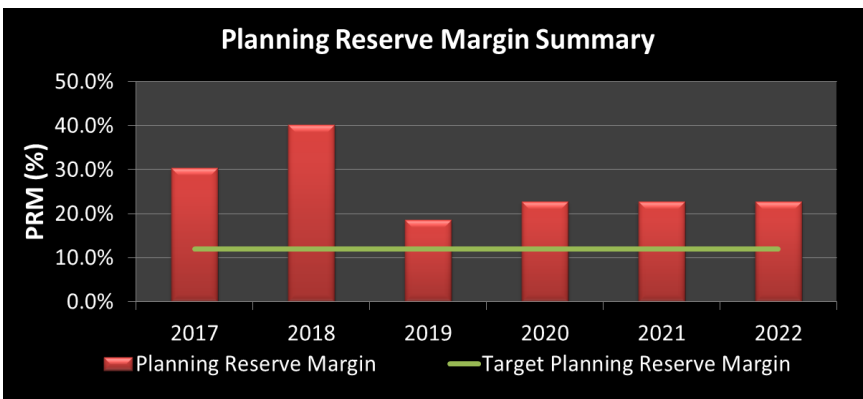
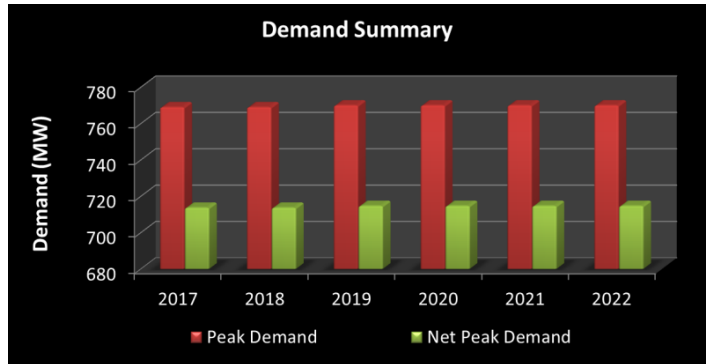
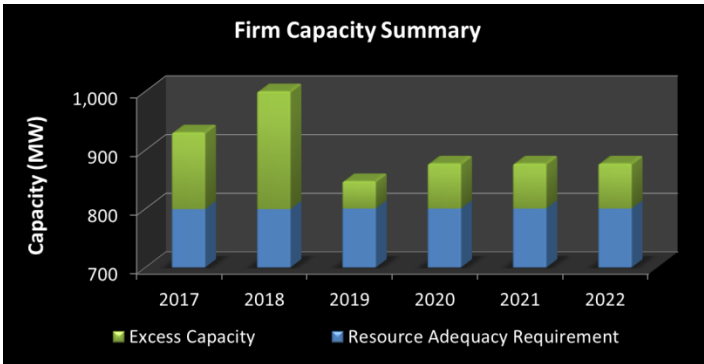
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|----------|----------|----------|----------|----------|----------|----------|
| Firm Capacity Resources | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 0 | 7 | 7 | 7 | 7 | 7 | 7 |
| Firm Power Purchases | MW | 0 | 5 | 3 | 1 | 1 | 1 | 1 |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 0 | 2 | 4 | 6 | 6 | 6 | 6 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | --- | 2 | 4 | 6 | 6 | 7 | |
| Excess Capacity | MW | --- | 0 | 0 | 0 | 0 | 0 | |
| Deficient Capacity | MW | --- | 2 | 4 | 6 | 6 | 7 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| SPP Target Planning Reserve Margin | % | --- | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% |

CITY OF WEST PLAINS BOARD OF PUBLIC WORKS



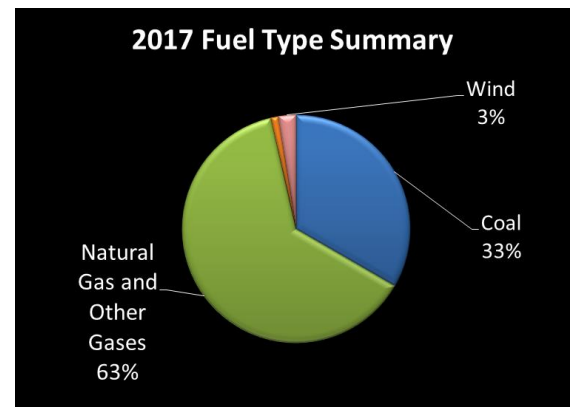
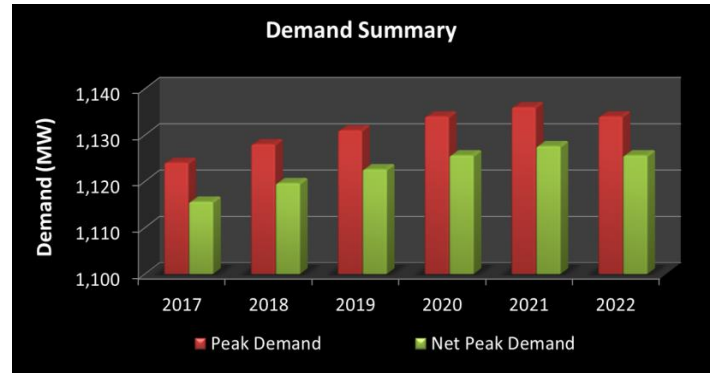
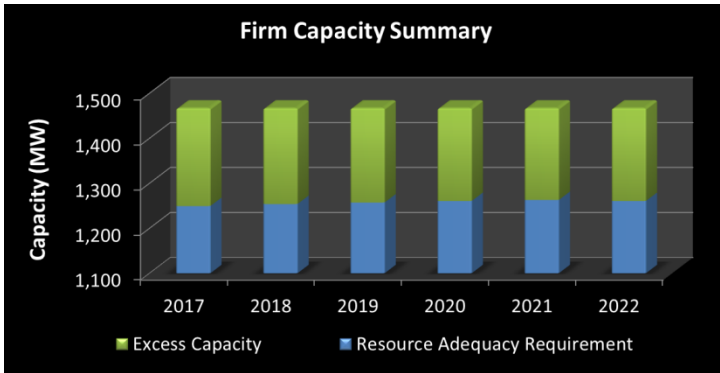
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Firm Capacity Resources | MW | 52 | 52 | 52 | 52 | 52 | 52 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 18 | 18 | 18 | 18 | 18 | 18 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 70 | 70 | 70 | 70 | 70 | 70 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 43 | 43 | 43 | 43 | 44 | 44 | |
| Firm Power Purchases | MW | 15 | 15 | 15 | 15 | 15 | 15 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 28 | 28 | 28 | 28 | 29 | 29 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 31 | 31 | 31 | 32 | 32 | 33 | |
| Excess Capacity | MW | 39 | 39 | 39 | 38 | 38 | 37 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

CITY UTILITIES OF SPRINGFIELD



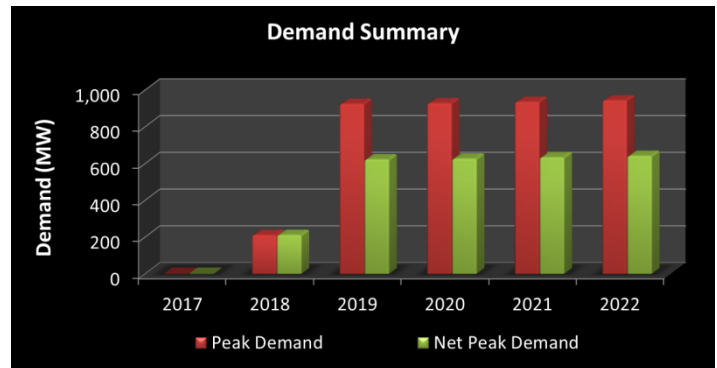
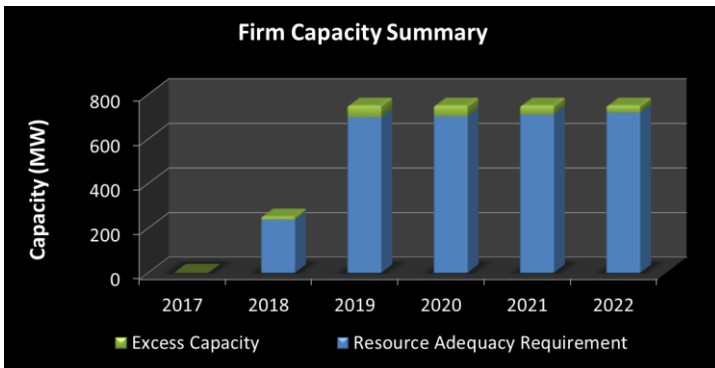
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|--------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 971 | 971 | 818 | 818 | 818 | 818 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 29 | 29 | 29 | 59 | 59 | 59 | |
| Firm Capacity Sales | MW | 70 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 930 | 1,000 | 847 | 877 | 877 | 877 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 769 | 769 | 770 | 770 | 770 | 770 | |
| Firm Power Purchases | MW | 55 | 55 | 55 | 55 | 55 | 55 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 714 | 714 | 715 | 715 | 715 | 715 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 8 | 9 | 9 | 10 | 10 | 11 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 799 | 799 | 800 | 800 | 800 | 800 | |
| Excess Capacity | MW | 131 | 201 | 47 | 77 | 77 | 77 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 30.3% | 40.1% | 18.5% | 22.7% | 22.7% | 22.7% | |
| | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

EMPIRE DISTRICT ELECTRIC COMPANY



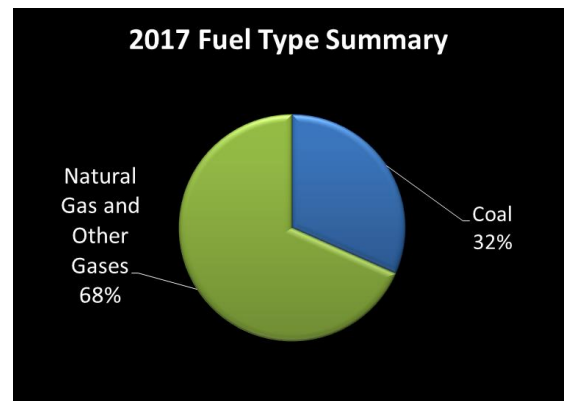
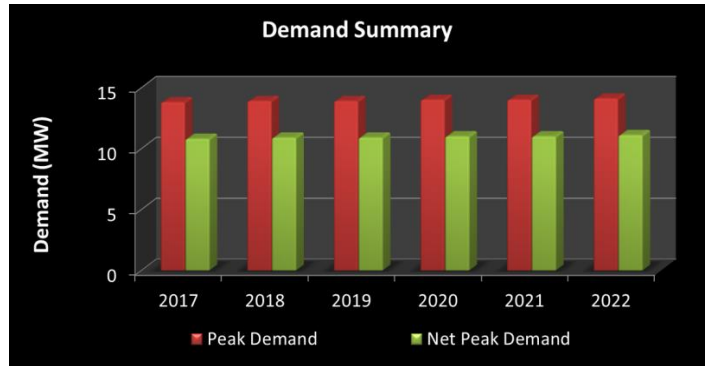
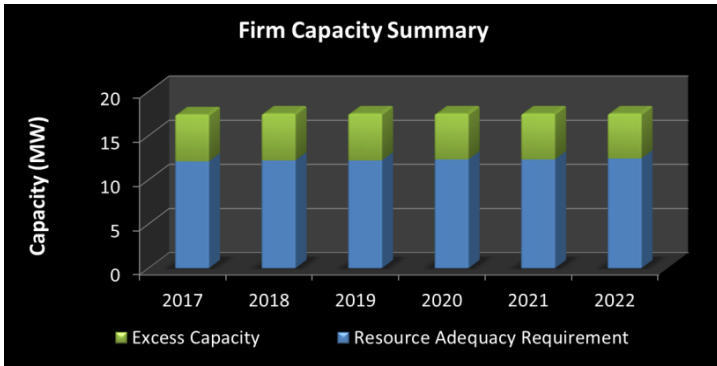
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 1,467 | 1,467 | 1,467 | 1,467 | 1,467 | 1,467 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 1,467 | 1,467 | 1,467 | 1,467 | 1,467 | 1,467 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 1,124 | 1,128 | 1,131 | 1,134 | 1,136 | 1,134 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 8 | 8 | 8 | 8 | 8 | 8 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 1,116 | 1,120 | 1,123 | 1,126 | 1,128 | 1,126 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 1,249 | 1,254 | 1,257 | 1,261 | 1,263 | 1,261 | |
| Excess Capacity | MW | 218 | 213 | 210 | 206 | 204 | 206 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |
| | % | 31.5% | 31.0% | 30.7% | 30.3% | 30.1% | 30.3% | |

ETEC/NTEC/TEX-LA



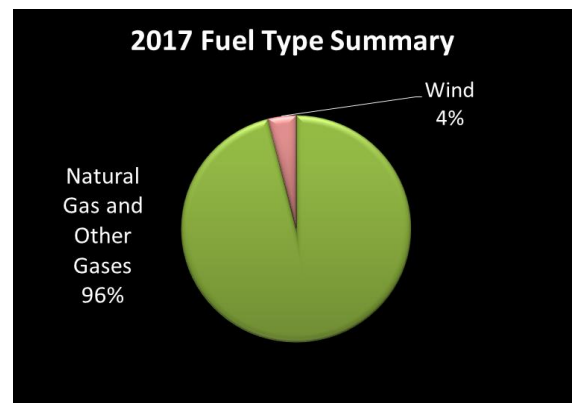
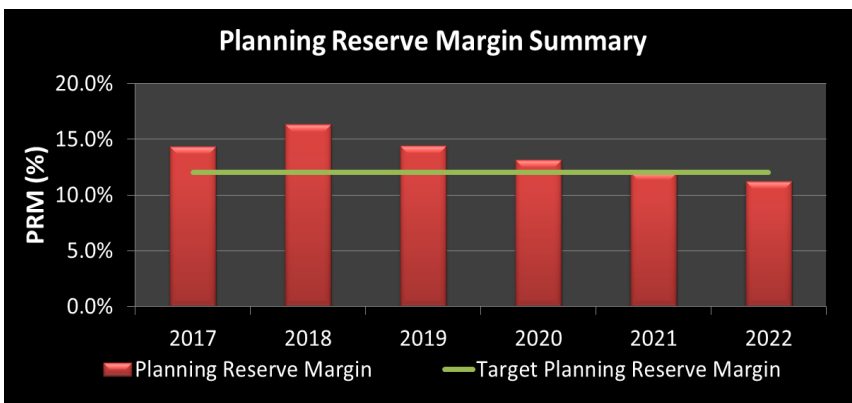
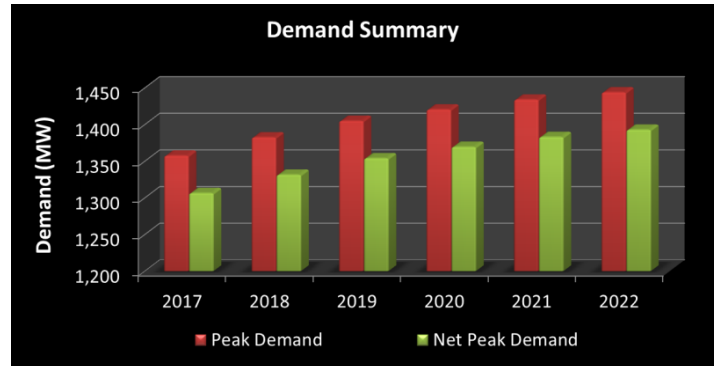
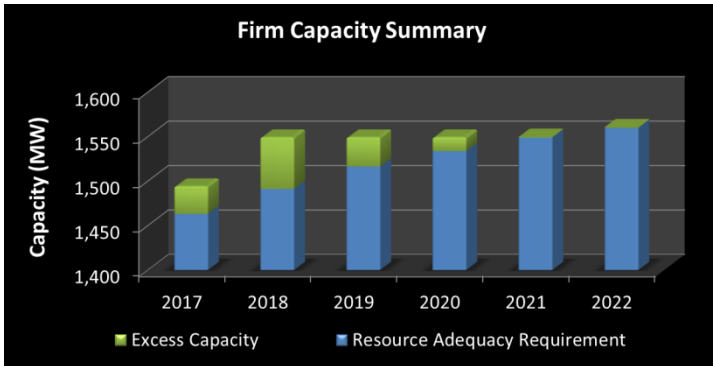
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|--------------|--------------|--------------|--------------|--------------|------------|
| Firm Capacity Resources | MW | 685 | 685 | 685 | 685 | 685 | 685 | 685 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Firm Capacity Sales | MW | 606 | 498 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 144 | 252 | 750 | 750 | 750 | 750 | 750 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 0 | 212 | 925 | 929 | 936 | 944 | |
| Firm Power Purchases | MW | 102 | 102 | 302 | 302 | 302 | 302 | |
| Firm Power Sales | MW | 102 | 102 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 0 | 212 | 623 | 627 | 634 | 642 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | --- | 237 | 698 | 702 | 710 | 719 | |
| Excess Capacity | MW | --- | 16 | 53 | 48 | 40 | 31 | |
| Deficient Capacity | MW | --- | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | % | --- | 19.3% | 20.4% | 19.7% | 18.4% | 16.9% | |
| SPP Target Planning Reserve Margin | % | --- | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

FALLS CITY UTILITIES



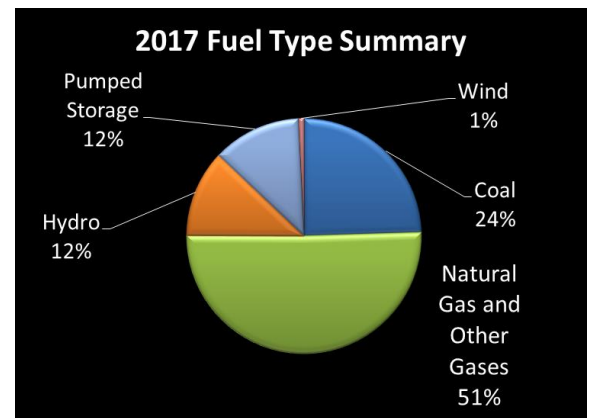
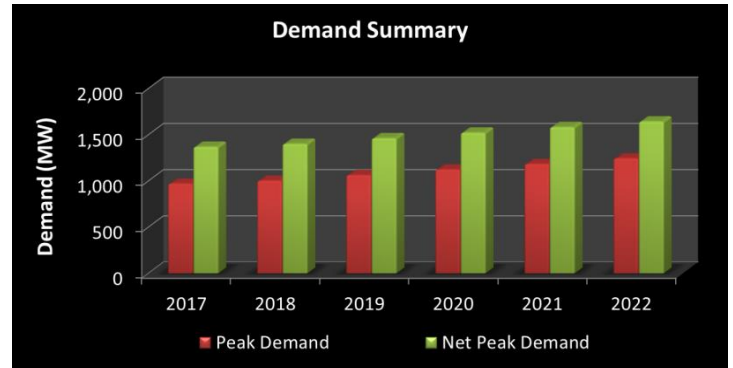
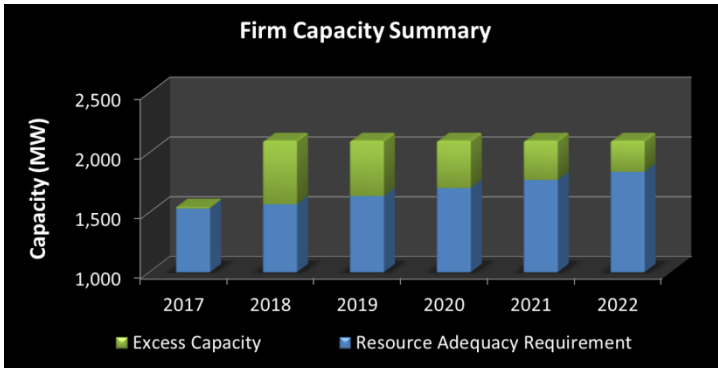
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Firm Capacity Resources | MW | 12 | 12 | 12 | 12 | 12 | 12 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 6 | 6 | 6 | 6 | 6 | 6 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 17 | 18 | 18 | 18 | 18 | 18 | |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 14 | 14 | 14 | 14 | 14 | 14 | |
| Firm Power Purchases | MW | 3 | 3 | 3 | 3 | 3 | 3 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 11 | 11 | 11 | 11 | 11 | 11 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | 12 | 12 | 12 | 12 | 12 | 12 | |
| Excess Capacity | MW | 5 | 5 | 5 | 5 | 5 | 5 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Planning Reserve Margin | % | 61.1% | 60.6% | 60.6% | 59.1% | 59.1% | 57.7% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

GOLDEN SPREAD ELECTRIC COOPERATIVE



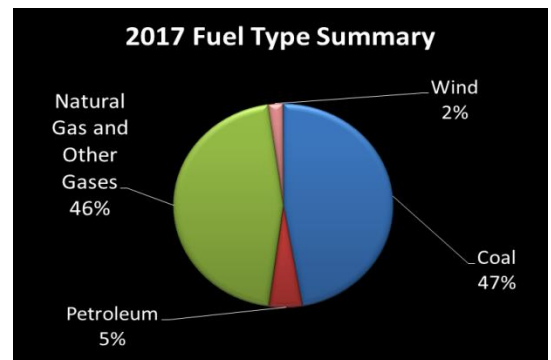
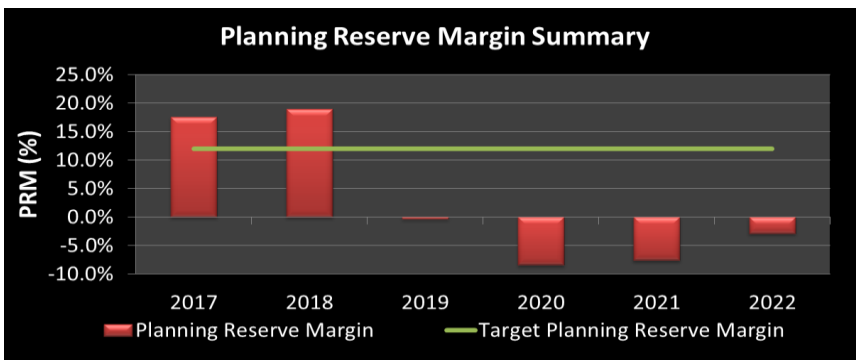
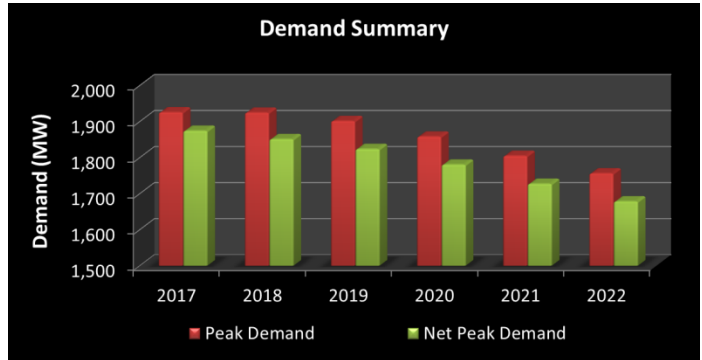
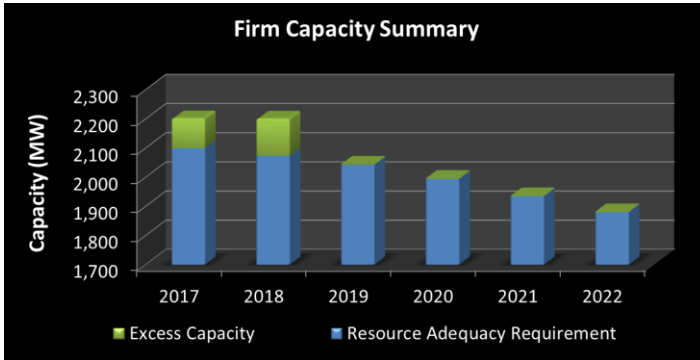
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|----|-------|-------|-------|-------|-------|-------|-------|
| Firm Capacity Resources | MW | 1,494 | 1,549 | 1,549 | 1,549 | 1,549 | 1,549 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | | MW | 1,494 | 1,549 | 1,549 | 1,549 | 1,549 | 1,549 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 1,358 | 1,383 | 1,405 | 1,421 | 1,434 | 1,444 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 51 | 51 | 51 | 51 | 51 | 51 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | | MW | 1,307 | 1,332 | 1,354 | 1,370 | 1,383 | 1,393 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 1,463 | 1,491 | 1,516 | 1,534 | 1,549 | 1,560 | |
| Excess Capacity | MW | 31 | 58 | 33 | 16 | 0 | 0 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 11 | |
| Planning Reserve Margin | | % | 14.4% | 16.4% | 14.4% | 13.1% | 12.0% | 11.2% |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

GRAND RIVER DAM AUTHORITY



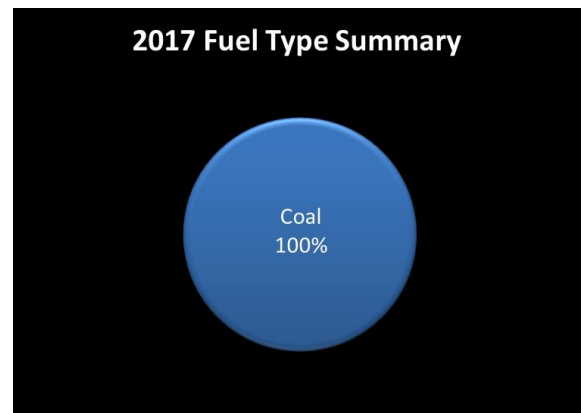
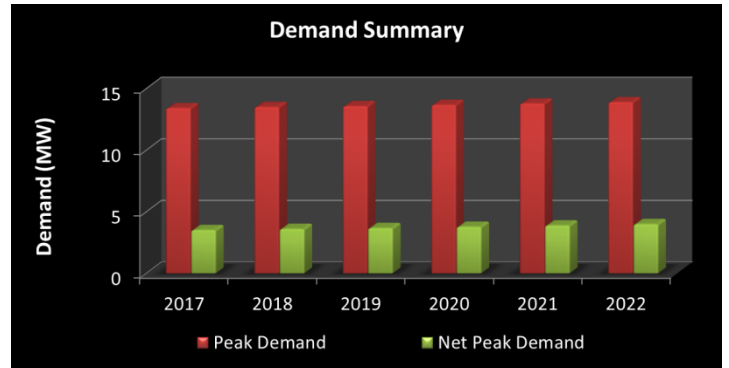
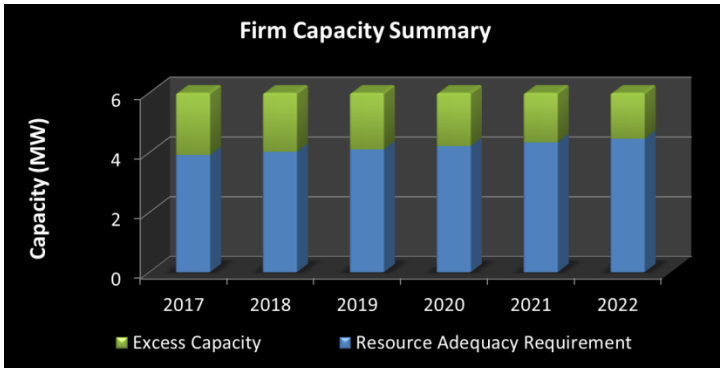
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Firm Capacity Resources | MW | 2,121 | 2,121 | 2,121 | 2,121 | 2,121 | 2,121 | 2,121 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Sales | MW | 0 | 20 | 20 | 20 | 20 | 20 | 20 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 520 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 55 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 1,546 | 2,101 | 2,101 | 2,101 | 2,101 | 2,101 | 2,101 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 970 | 1,002 | 1,063 | 1,123 | 1,183 | 1,244 | |
| Firm Power Purchases | MW | 13 | 13 | 13 | 13 | 13 | 13 | |
| Firm Power Sales | MW | 442 | 442 | 442 | 442 | 442 | 442 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 30 | 30 | 30 | 30 | 30 | 30 | |
| Net Peak Demand (Forecasted) | MW | 1,369 | 1,401 | 1,462 | 1,522 | 1,582 | 1,643 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 1,534 | 1,570 | 1,638 | 1,705 | 1,772 | 1,841 | |
| Excess Capacity | MW | 12 | 531 | 463 | 396 | 328 | 260 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | % | 12.9% | 49.9% | 43.6% | 38.0% | 32.7% | 27.8% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

GREATER MISSOURI OPERATIONS COMPANY (KCP&L)



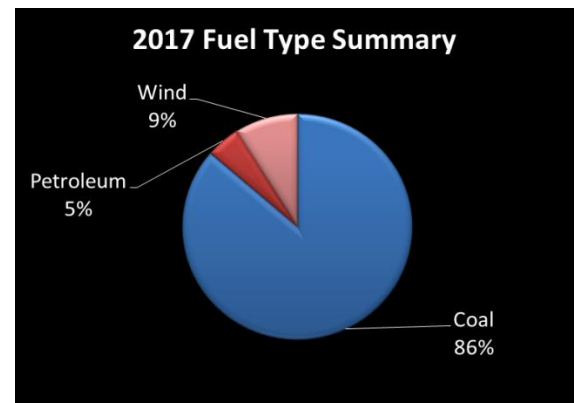
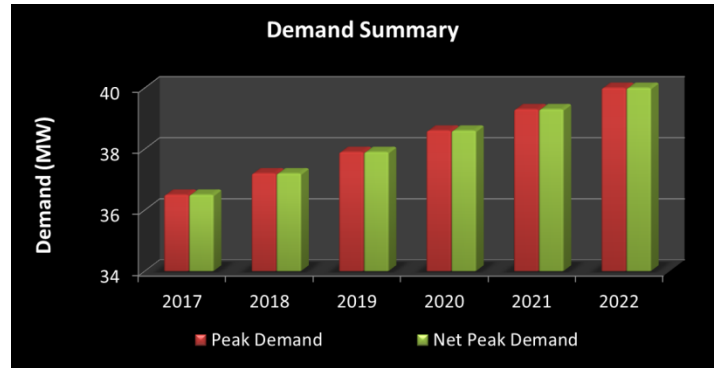
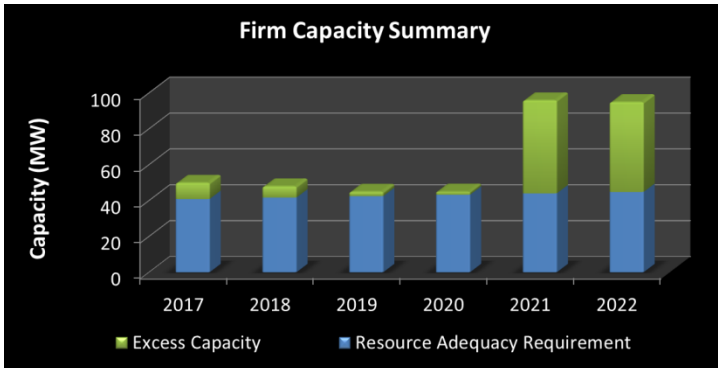
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 2,076 | 2,076 | 1,628 | 1,531 | 1,531 | 1,565 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 131 | 130 | 195 | 105 | 70 | 70 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 448 | 546 | 546 | 546 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 5 | 5 | 5 | 5 | 5 | 5 | |
| Firm Capacity | MW | 2,202 | 2,201 | 1,818 | 1,631 | 1,596 | 1,630 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 1,926 | 1,925 | 1,902 | 1,858 | 1,805 | 1,756 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 51 | 73 | 78 | 78 | 78 | 78 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 1,875 | 1,851 | 1,824 | 1,781 | 1,727 | 1,679 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 16 | 27 | 56 | 106 | 162 | 220 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 2,099 | 2,074 | 2,043 | 1,994 | 1,935 | 1,880 | |
| Excess Capacity | MW | 103 | 128 | 0 | 0 | 0 | 0 | |
| Deficient Capacity | MW | 0 | 0 | 225 | 364 | 339 | 250 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |
| Actual Planning Reserve Margin | % | 17.5% | 18.9% | -0.3% | -8.4% | -7.6% | -2.9% | |

HARLAN MUNICIPAL UTILITIES



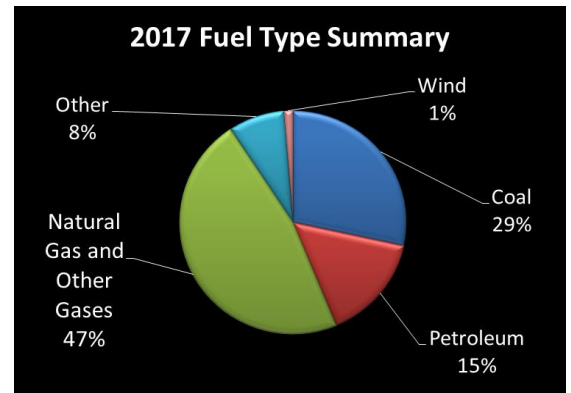
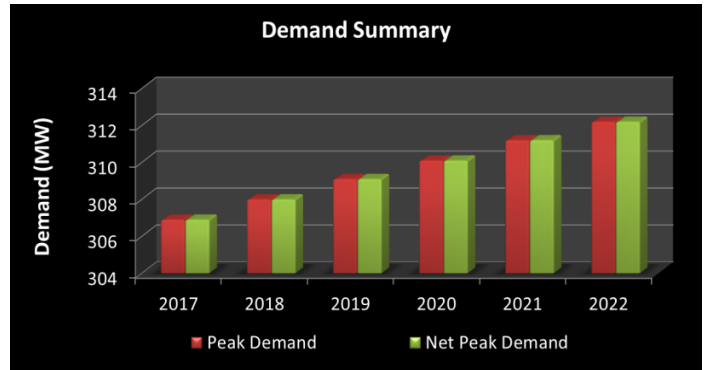
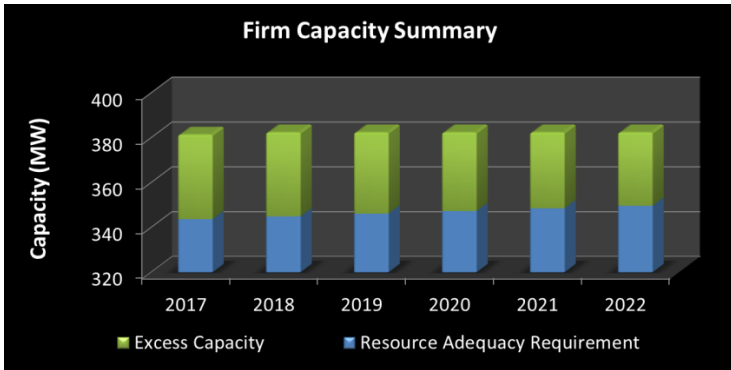
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|----------|----------|----------|----------|----------|----------|----------|
| Firm Capacity Resources | MW | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 13 | 14 | 14 | 14 | 14 | 14 | 14 |
| Firm Power Purchases | MW | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Excess Capacity | MW | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Planning Reserve Margin | | | | | | | | |
| Planning Reserve Margin | % | 71.1% | 66.6% | 63.5% | 59.0% | 54.6% | 50.4% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% |

HEARTLAND CONSUMERS POWER DISTRICT



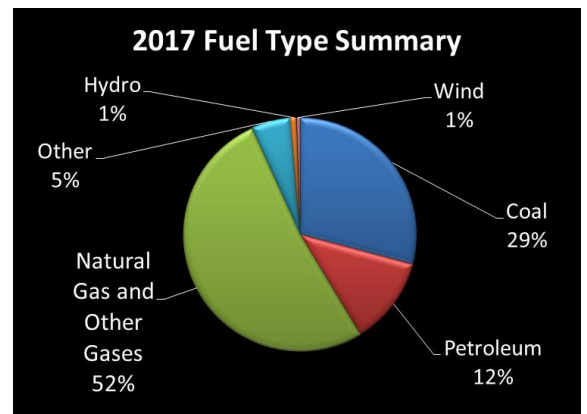
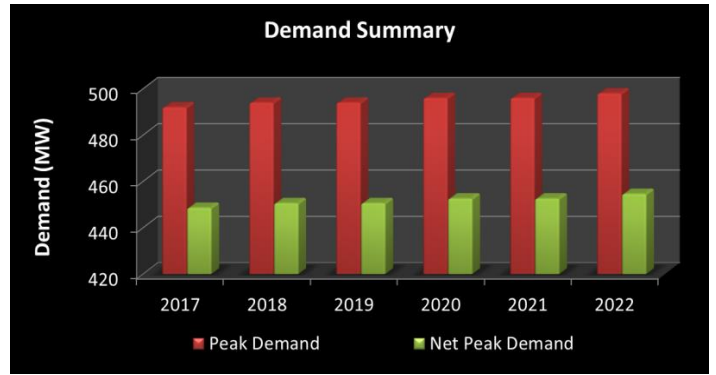
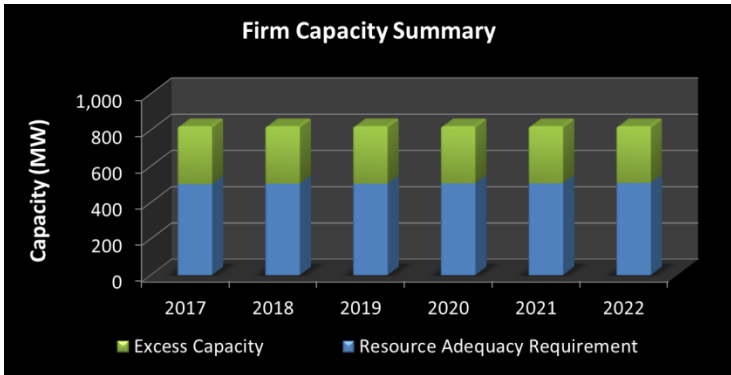
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Firm Capacity Resources | MW | 135 | 135 | 135 | 135 | 135 | 135 | 134 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Firm Capacity Sales | MW | 96 | 98 | 101 | 101 | 50 | 50 | 50 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 50 | 48 | 45 | 45 | 96 | 95 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 37 | 37 | 38 | 39 | 39 | 40 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 37 | 37 | 38 | 39 | 39 | 40 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 41 | 42 | 42 | 43 | 44 | 45 | |
| Excess Capacity | MW | 9 | 6 | 2 | 2 | 52 | 50 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 36.7% | 28.8% | 18.5% | 16.3% | 144.0% | 137.3% | |
| | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

INDEPENDENCE POWER & LIGHT



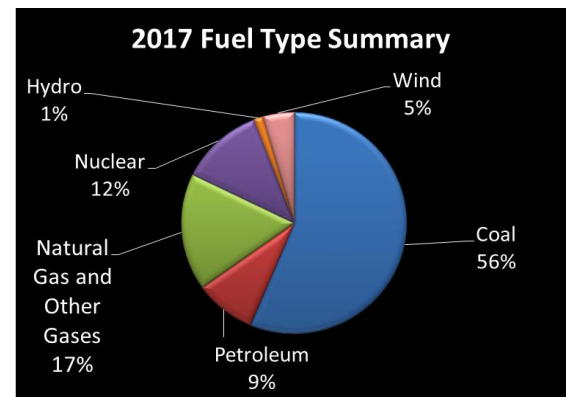
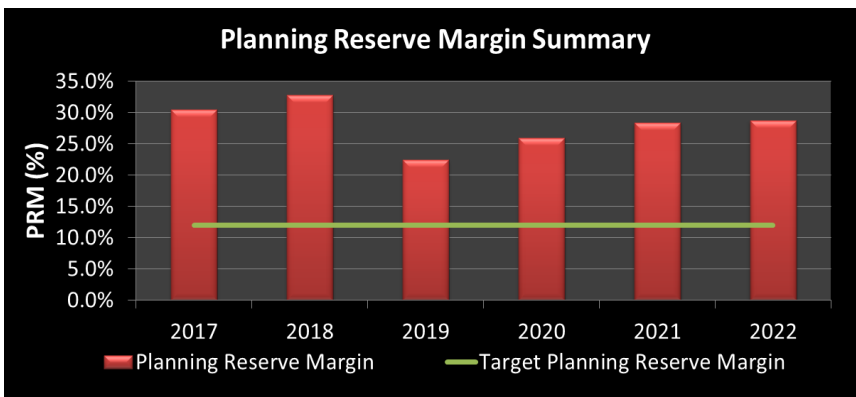
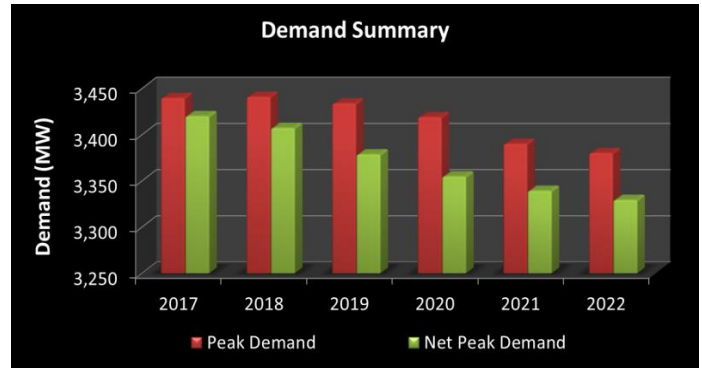
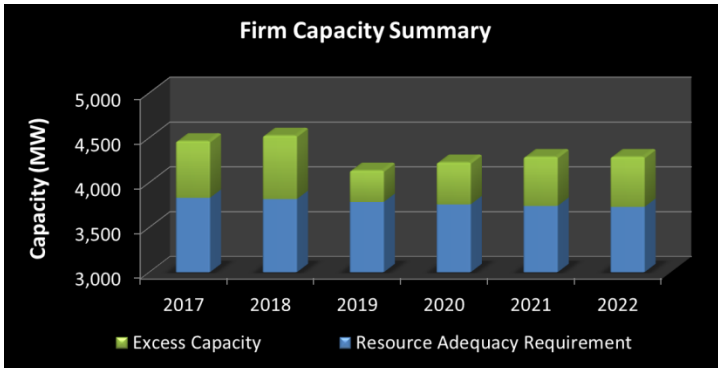
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------------|
| Firm Capacity Resources | MW | 268 | 268 | 268 | 268 | 268 | 268 | 268 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 113 | 114 | 114 | 114 | 114 | 114 | 114 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 381 | 382 | 382 | 382 | 382 | 382 | 382 |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 307 | 308 | 309 | 310 | 311 | 312 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 307 | 308 | 309 | 310 | 311 | 312 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | 344 | 345 | 346 | 347 | 349 | 350 | |
| Excess Capacity | MW | 38 | 37 | 36 | 35 | 34 | 33 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% |

KANSAS CITY BOARD OF PUBLIC UTILITIES



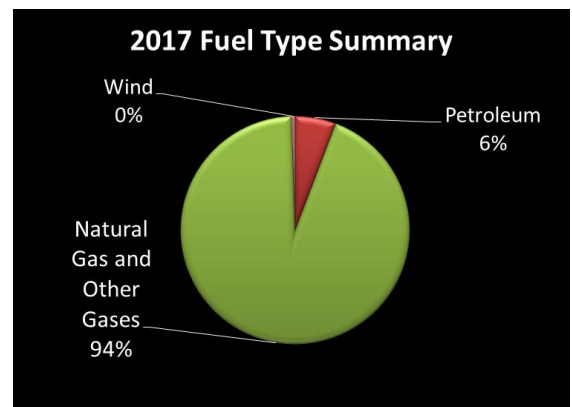
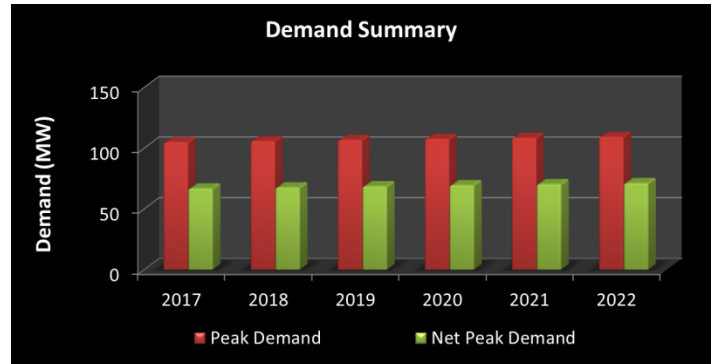
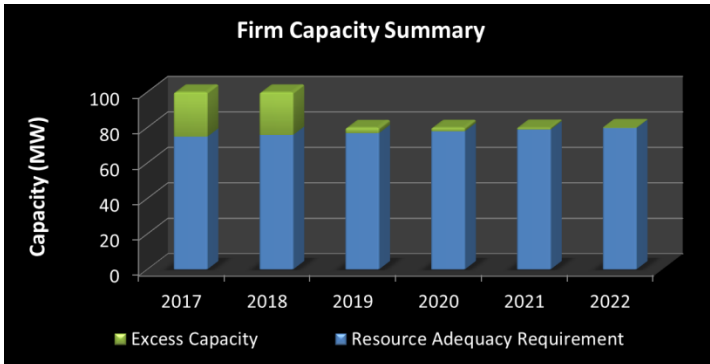
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------------|
| Firm Capacity Resources | MW | 810 | 810 | 810 | 810 | 810 | 810 | 810 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 821 | 821 | 821 | 821 | 821 | 821 | 821 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 492 | 494 | 494 | 496 | 496 | 498 | |
| Firm Power Purchases | MW | 43 | 43 | 43 | 43 | 43 | 43 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 449 | 451 | 451 | 453 | 453 | 455 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 502 | 505 | 505 | 507 | 507 | 509 | |
| Excess Capacity | MW | 318 | 316 | 316 | 314 | 314 | 311 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

KANSAS CITY POWER & LIGHT



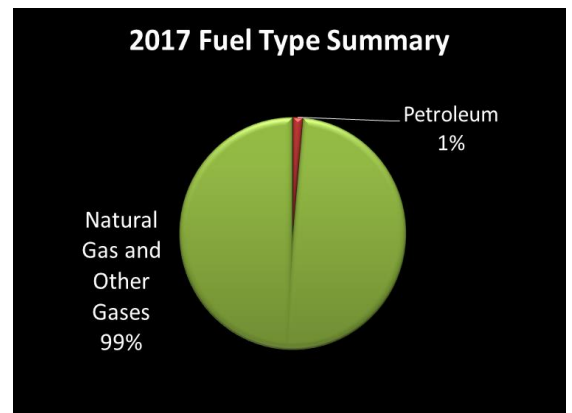
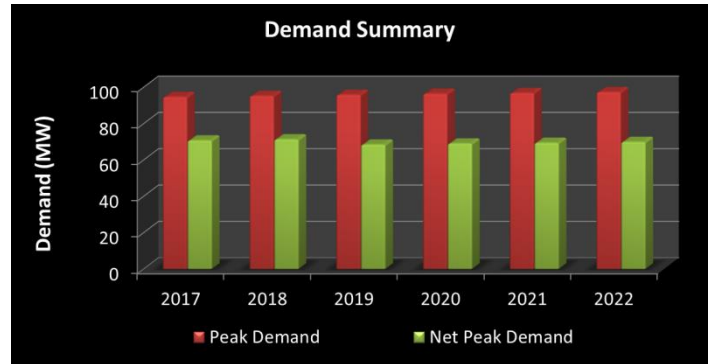
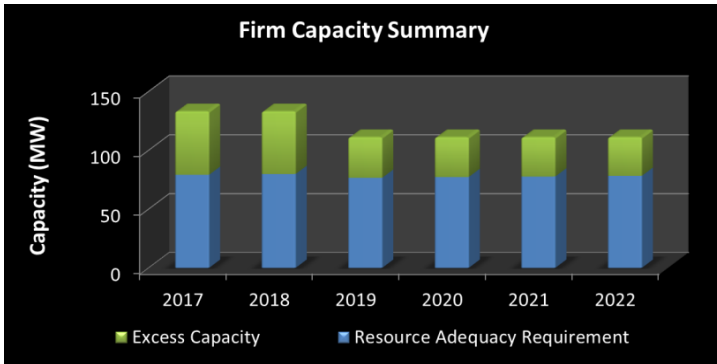
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 4,344 | 4,344 | 4,010 | 4,010 | 4,010 | 4,010 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 256 | 292 | 292 | 292 | 292 | 292 | |
| Firm Capacity Sales | MW | 137 | 112 | 167 | 77 | 15 | 15 | |
| Confirmed Retirements | MW | 0 | 0 | 334 | 334 | 334 | 334 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 4,463 | 4,524 | 4,135 | 4,225 | 4,287 | 4,287 | |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 3,440 | 3,441 | 3,434 | 3,419 | 3,390 | 3,380 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 20 | 34 | 55 | 64 | 51 | 51 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 3,420 | 3,407 | 3,379 | 3,355 | 3,339 | 3,329 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 18 | 35 | 54 | 75 | 112 | 141 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | 3,831 | 3,816 | 3,784 | 3,757 | 3,740 | 3,729 | |
| Excess Capacity | MW | 633 | 708 | 351 | 467 | 547 | 558 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Planning Reserve Margin | % | 30.5% | 32.8% | 22.4% | 25.9% | 28.4% | 28.8% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

KANSAS MUNICIPAL ENERGY AGENCY – EMP1



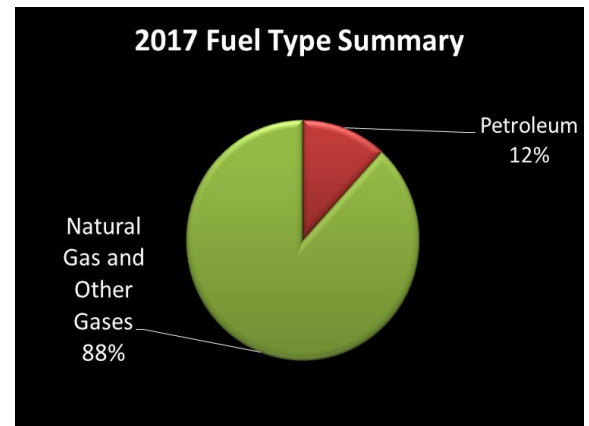
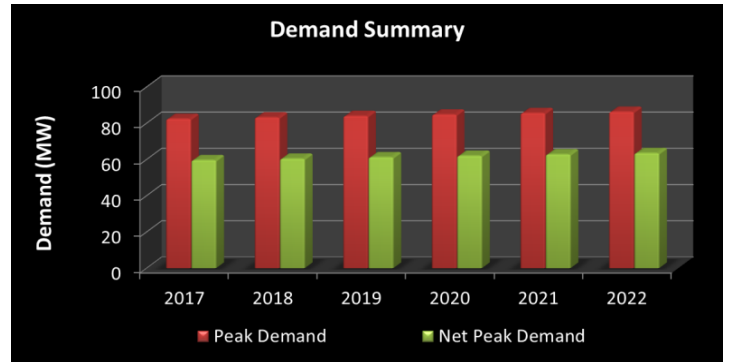
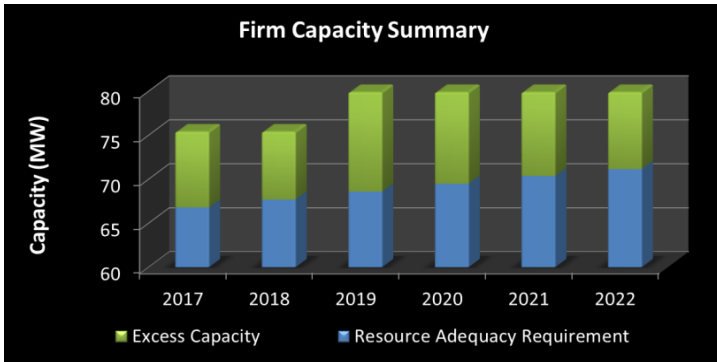
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|-----------|-----------|-----------|-----------|------|
| Firm Capacity Resources | MW | 80 | 80 | 80 | 80 | 80 | 80 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 20 | 20 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 100 | 100 | 80 | 80 | 80 | 80 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 105 | 106 | 107 | 108 | 109 | 109 | |
| Firm Power Purchases | MW | 38 | 38 | 38 | 38 | 38 | 38 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 67 | 68 | 69 | 70 | 70 | 71 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 75 | 76 | 77 | 78 | 79 | 80 | |
| Excess Capacity | MW | 25 | 24 | 3 | 2 | 1 | 0 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 49.6% | 47.6% | 16.5% | 15.0% | 13.5% | 12.2% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

KANSAS MUNICIPAL ENERGY AGENCY – EMP2



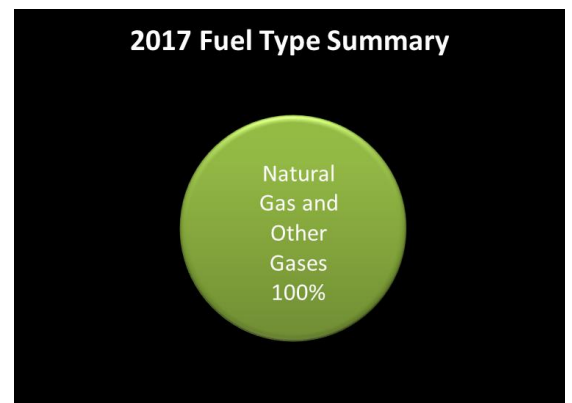
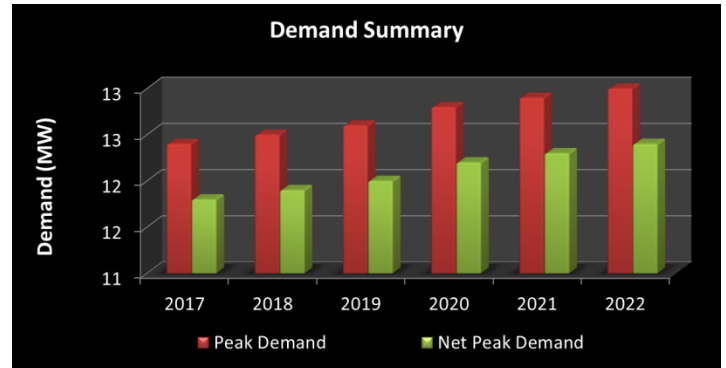
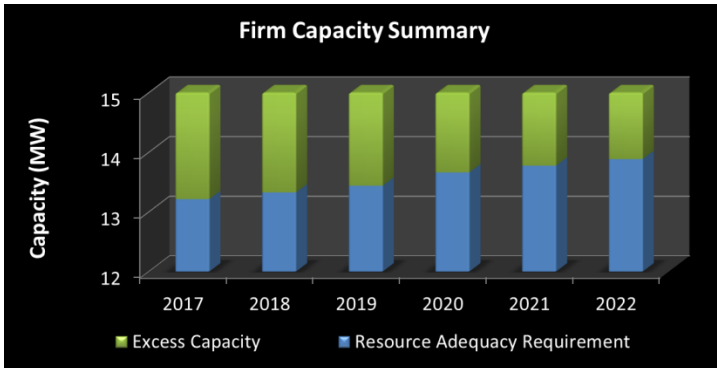
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 118 | 118 | 118 | 118 | 118 | 118 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 29 | 29 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 14 | 14 | 7 | 7 | 7 | 7 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 133 | 133 | 111 | 111 | 111 | 111 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 95 | 95 | 96 | 96 | 97 | 97 | |
| Firm Power Purchases | MW | 24 | 24 | 27 | 27 | 27 | 27 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 71 | 71 | 68 | 69 | 69 | 70 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 79 | 80 | 77 | 77 | 78 | 78 | |
| Excess Capacity | MW | 54 | 53 | 34 | 34 | 33 | 33 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 88.3% | 86.7% | 62.4% | 61.0% | 60.1% | 58.9% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

KANSAS MUNICIPAL ENERGY AGENCY – EMP3



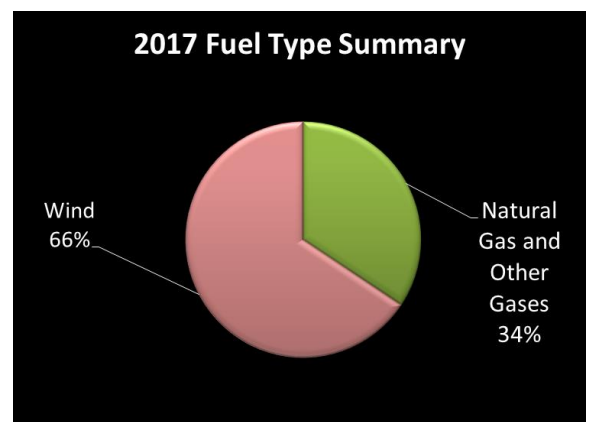
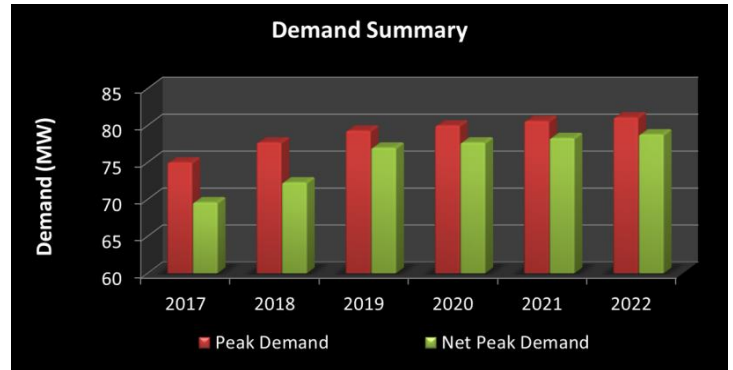
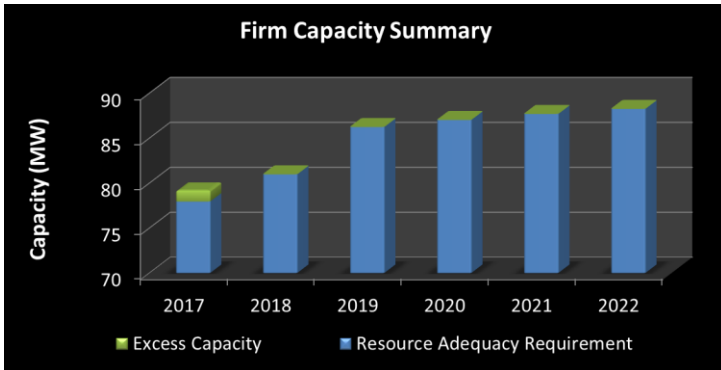
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Firm Capacity Resources | MW | 80 | 80 | 80 | 80 | 80 | 80 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 5 | 5 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 75 | 75 | 80 | 80 | 80 | 80 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 82 | 83 | 84 | 85 | 86 | 86 | |
| Firm Power Purchases | MW | 23 | 23 | 23 | 23 | 23 | 23 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 60 | 60 | 61 | 62 | 63 | 64 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 67 | 68 | 69 | 69 | 70 | 71 | |
| Excess Capacity | MW | 9 | 8 | 11 | 10 | 10 | 9 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

KANSAS MUNICIPAL ENERGY AGENCY – EUDORA



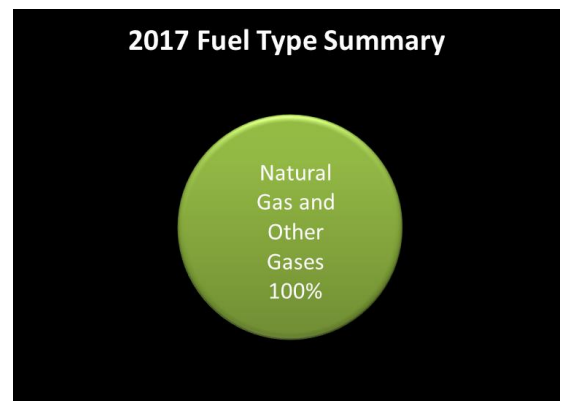
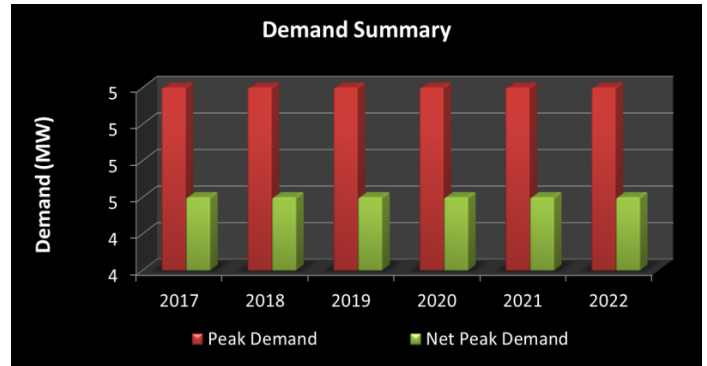
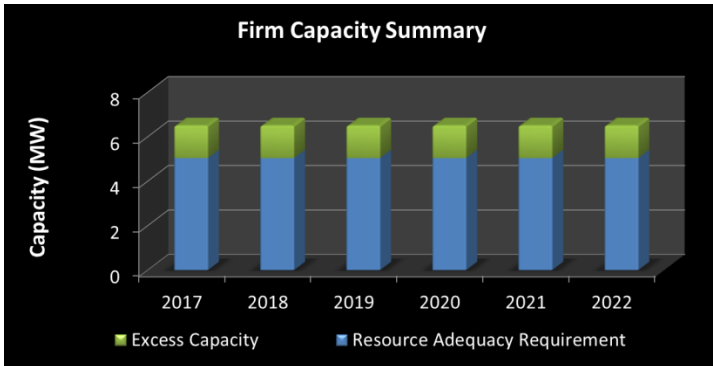
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Firm Capacity Resources | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 12 | 13 | 13 | 13 | 13 | 13 | 13 |
| Firm Power Purchases | MW | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 13 | 13 | 13 | 14 | 14 | 14 | 14 |
| Excess Capacity | MW | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Planning Reserve Margin | | | | | | | | |
| Planning Reserve Margin | % | 27.1% | 26.1% | 25.0% | 23.0% | 22.0% | 21.0% | 21.0% |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% |

KANSAS MUNICIPAL ENERGY AGENCY – GC



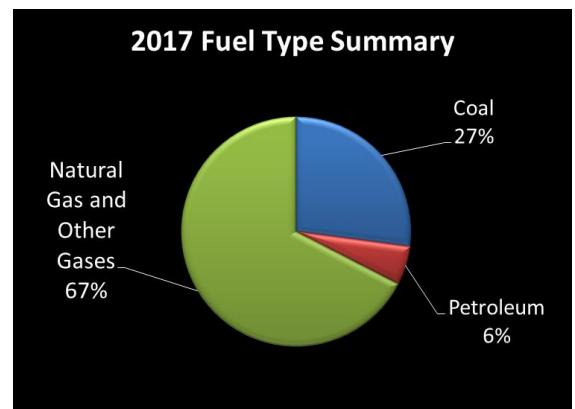
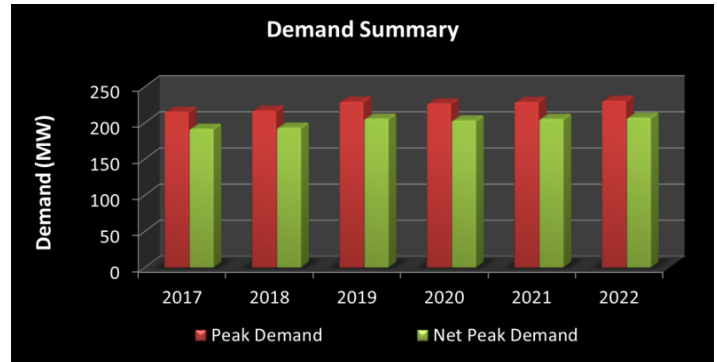
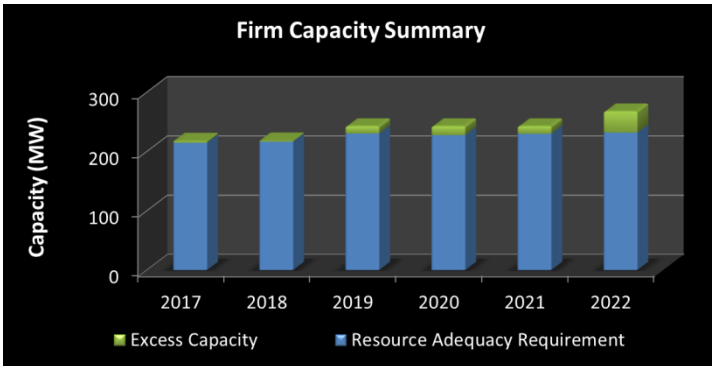
| | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Firm Capacity Summary | | | | | | | |
| Firm Capacity Resources | MW | 27 | 27 | 27 | 27 | 27 | 27 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 52 | 37 | 27 | 27 | 0 | 0 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 79 | 64 | 54 | 54 | 27 | 27 |
| Demand Summary | | | | | | | |
| Peak Demand (Forecasted) | MW | 75 | 78 | 79 | 80 | 81 | 81 |
| Firm Power Purchases | MW | 5 | 5 | 2 | 2 | 2 | 2 |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 70 | 72 | 77 | 78 | 78 | 79 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | | | | | | |
| Resource Adequacy Requirement | MW | 78 | 81 | 86 | 87 | 88 | 88 |
| Excess Capacity | MW | 1 | 0 | 0 | 0 | 0 | 0 |
| Deficient Capacity | MW | 0 | 17 | 32 | 33 | 60 | 61 |
| Planning Reserve Margin | | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% |
| Actual Planning Reserve Margin | % | 13.8% | -11.2% | -29.6% | -30.2% | -65.3% | -65.5% |

KANSAS MUNICIPAL ENERGY AGENCY – MEADE



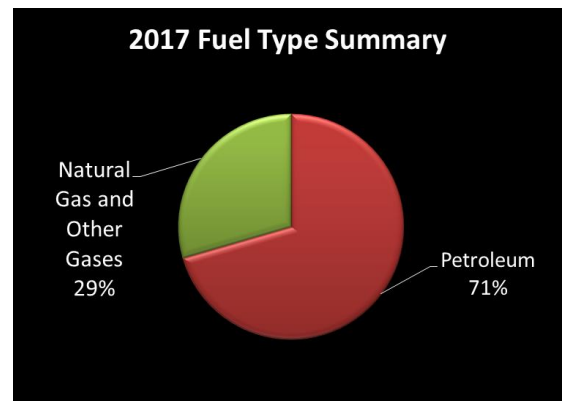
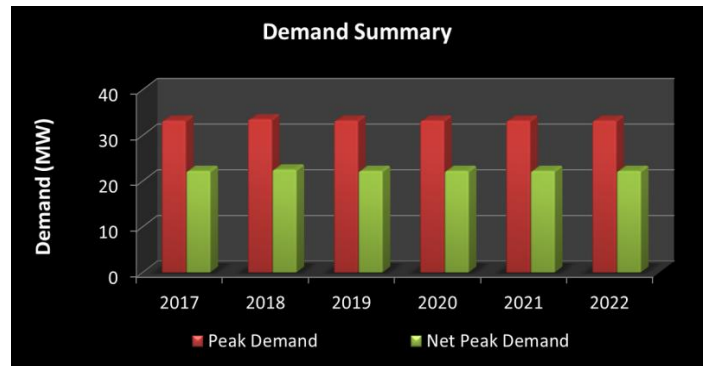
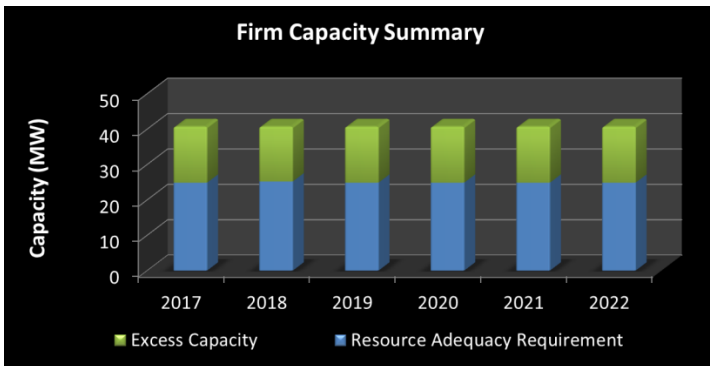
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|----------|----------|----------|----------|----------|----------|----------|
| Firm Capacity Resources | MW | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Excess Capacity | MW | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| SPP Target Planning Reserve Margin | % | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% |

KANSAS POWER POOL



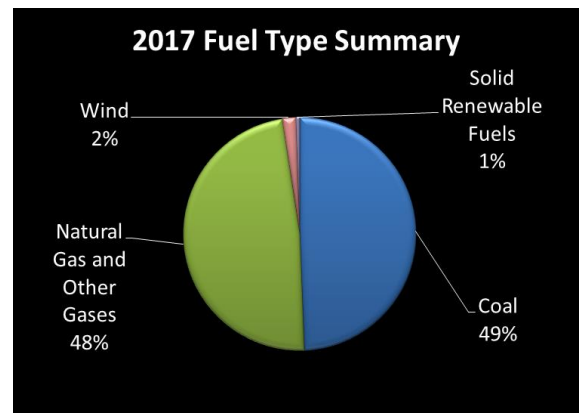
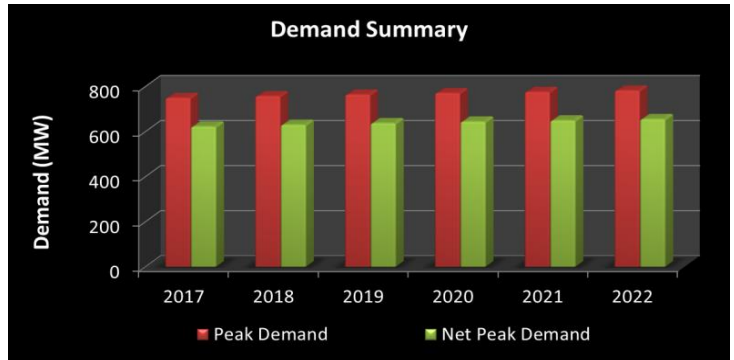
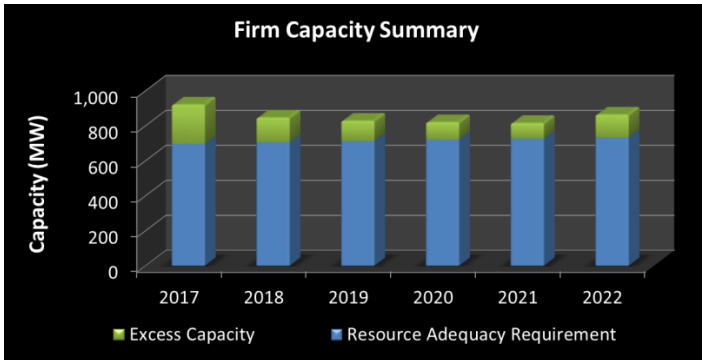
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------------|
| Firm Capacity Resources | MW | 209 | 209 | 209 | 209 | 209 | 209 | 209 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Firm Capacity Sales | MW | 50 | 50 | 25 | 25 | 25 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 218 | 218 | 243 | 243 | 243 | 243 | 268 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 215 | 217 | 229 | 227 | 229 | 231 | |
| Firm Power Purchases | MW | 24 | 24 | 24 | 24 | 24 | 24 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 192 | 193 | 206 | 203 | 205 | 207 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 215 | 216 | 230 | 228 | 230 | 232 | |
| Excess Capacity | MW | 3 | 1 | 12 | 15 | 13 | 36 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 13.6% | 12.7% | 18.0% | 19.4% | 18.2% | 29.3% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

KENNETT BOARD OF PUBLIC WORKS



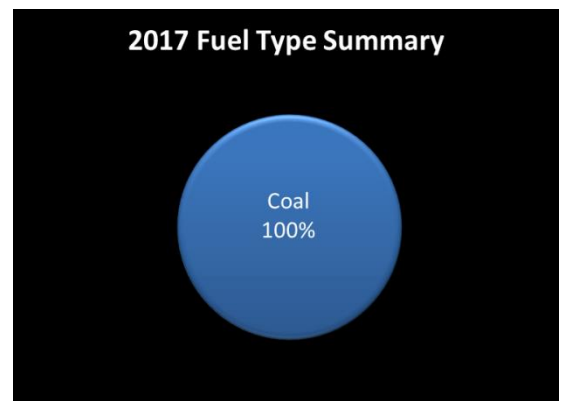
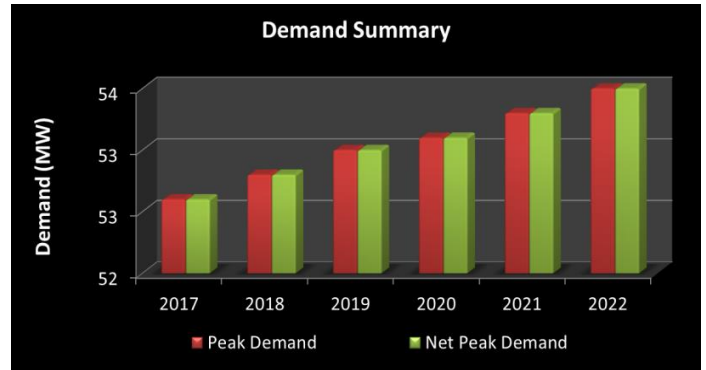
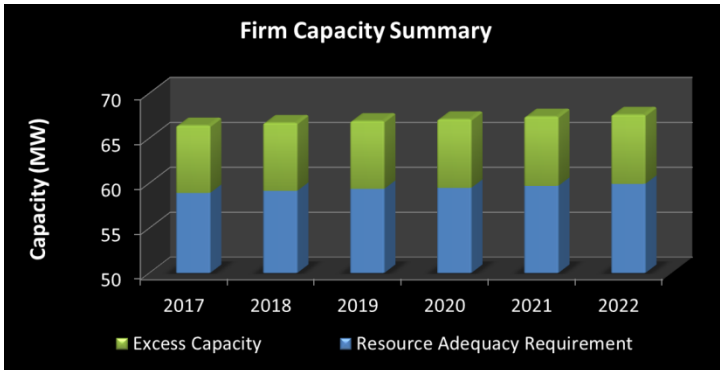
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Firm Capacity Resources | MW | 41 | 41 | 41 | 41 | 41 | 41 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 41 | 41 | 41 | 41 | 41 | 41 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 33 | 34 | 33 | 33 | 33 | 33 | |
| Firm Power Purchases | MW | 11 | 11 | 11 | 11 | 11 | 11 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 22 | 23 | 22 | 22 | 22 | 22 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 25 | 25 | 25 | 25 | 25 | 25 | |
| Excess Capacity | MW | 16 | 16 | 16 | 16 | 16 | 16 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 83.3% | 80.9% | 83.3% | 83.3% | 83.3% | 83.3% | |
| | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

LINCOLN ELECTRIC SYSTEM



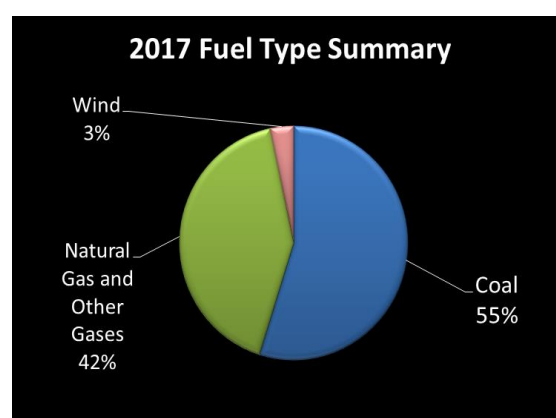
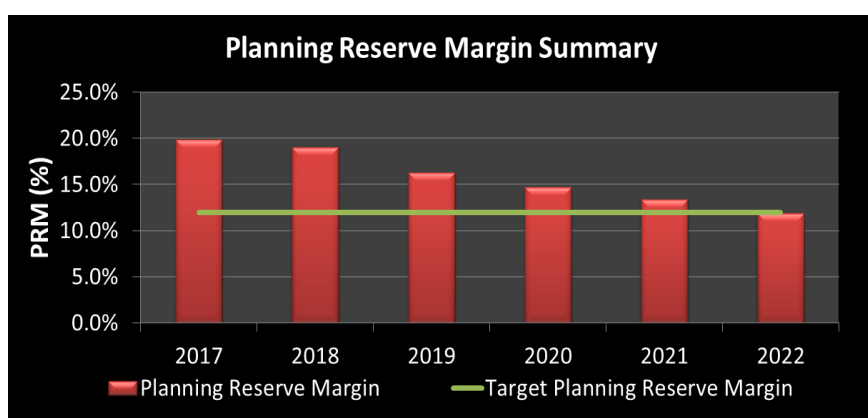
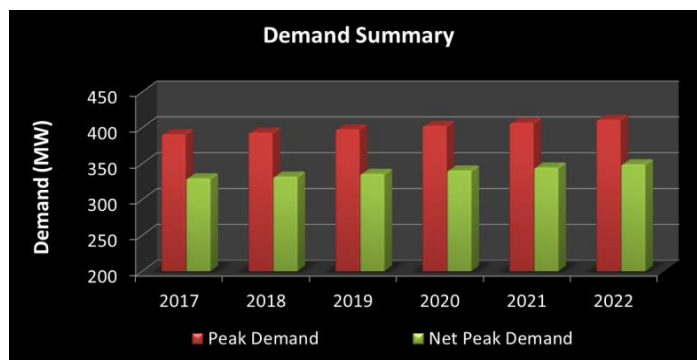
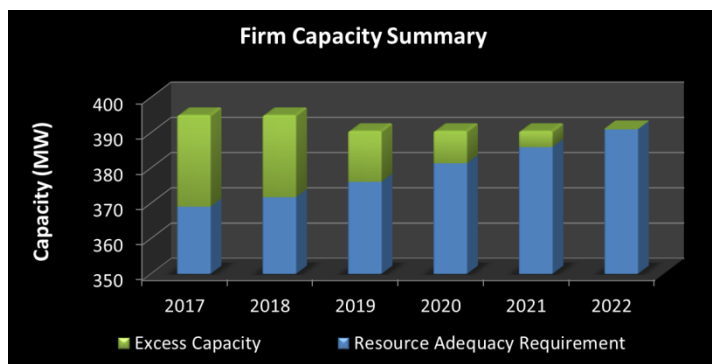
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 765 | 765 | 764 | 763 | 763 | 764 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 224 | 159 | 159 | 159 | 159 | 159 | |
| Firm Capacity Sales | MW | 67 | 78 | 95 | 102 | 107 | 60 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 1 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 921 | 847 | 829 | 821 | 816 | 864 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 749 | 757 | 764 | 771 | 776 | 782 | |
| Firm Power Purchases | MW | 127 | 127 | 127 | 127 | 127 | 127 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 622 | 630 | 637 | 644 | 649 | 655 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 9 | 9 | 9 | 8 | 8 | 8 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 7 | 7 | 7 | 7 | 7 | 7 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 697 | 706 | 714 | 722 | 727 | 734 | |
| Excess Capacity | MW | 224 | 141 | 115 | 99 | 89 | 130 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 48.1% | 34.4% | 30.1% | 27.4% | 25.6% | 31.8% | |
| | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

MIDAMERICAN ENERGY COMPANY



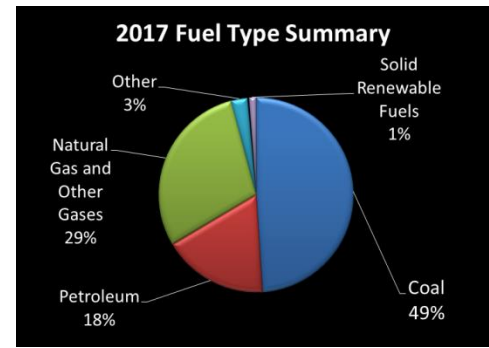
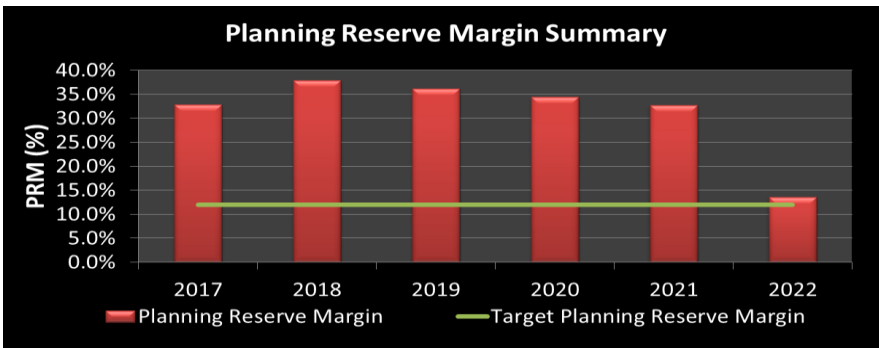
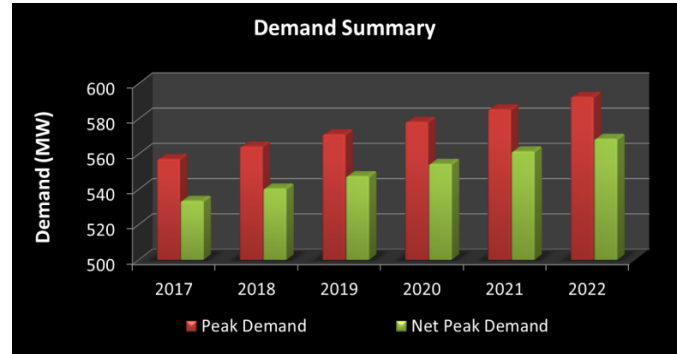
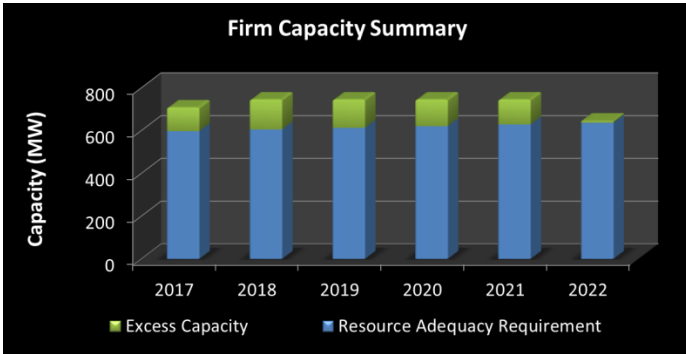
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Firm Capacity Resources | MW | 66 | 67 | 67 | 67 | 67 | 68 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 66 | 67 | 67 | 67 | 67 | 68 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 53 | 53 | 53 | 53 | 53 | 54 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 53 | 53 | 53 | 53 | 53 | 54 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 59 | 59 | 59 | 59 | 60 | 60 | |
| Excess Capacity | MW | 7 | 8 | 8 | 8 | 8 | 8 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |
| | % | 26.2% | 26.3% | 26.2% | 26.4% | 26.5% | 26.4% | |

MIDWEST ENERGY



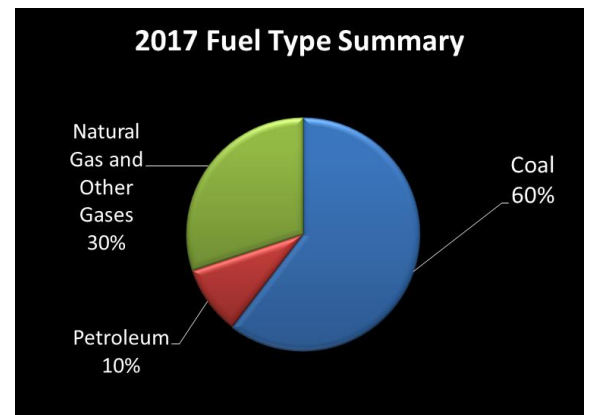
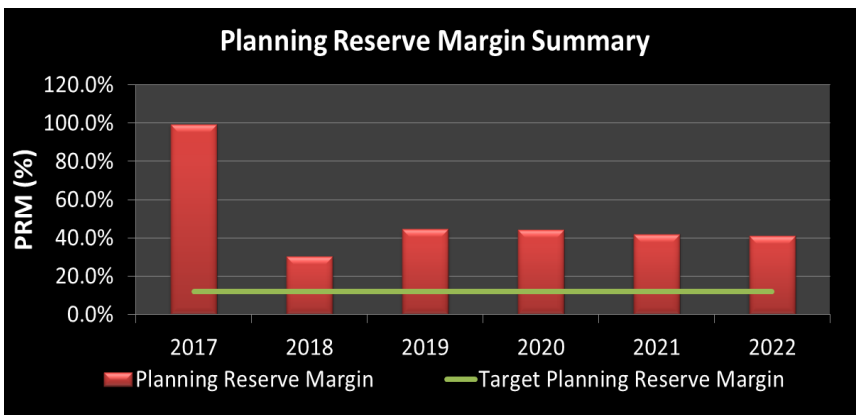
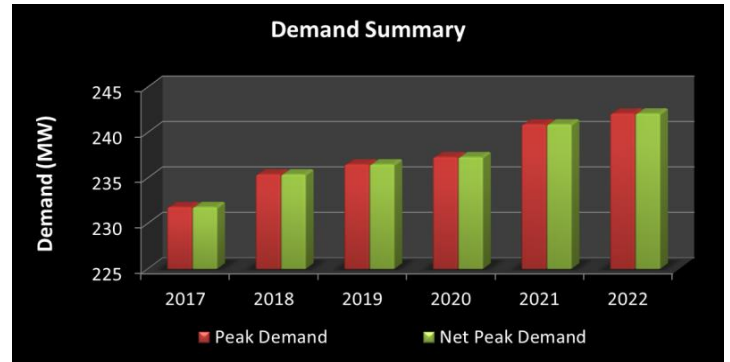
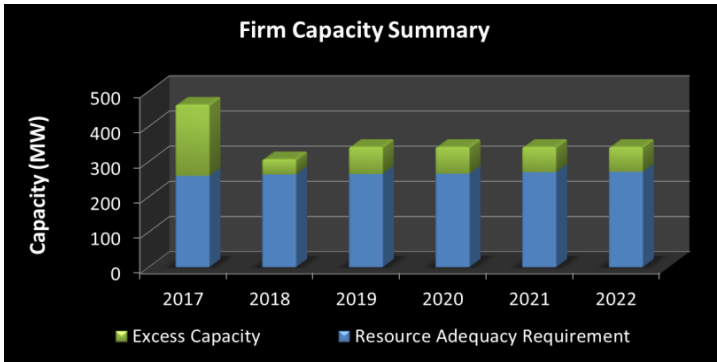
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 115 | 115 | 115 | 115 | 115 | 115 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 281 | 281 | 276 | 276 | 276 | 276 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 395 | 395 | 391 | 391 | 391 | 391 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 391 | 393 | 398 | 403 | 407 | 411 | |
| Firm Power Purchases | MW | 6 | 6 | 6 | 6 | 6 | 6 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 23 | 23 | 24 | 24 | 24 | 24 | |
| Other Controllable and Dispatchable DEG - Available | MW | 33 | 33 | 33 | 33 | 33 | 33 | |
| Net Peak Demand (Forecasted) | MW | 330 | 332 | 336 | 341 | 345 | 349 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 369 | 372 | 376 | 381 | 386 | 391 | |
| Excess Capacity | MW | 26 | 23 | 14 | 9 | 5 | 0 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |
| Actual Planning Reserve Margin | % | 19.9% | 19.0% | 16.3% | 14.7% | 13.3% | 11.9% | |

MISSOURI JOINT MUNICIPAL ELECTRIC UTILITY COMMISSION



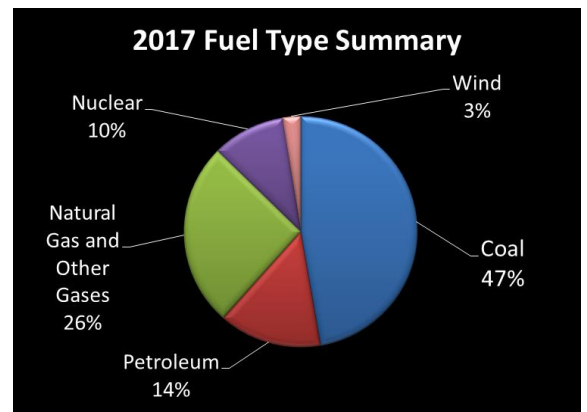
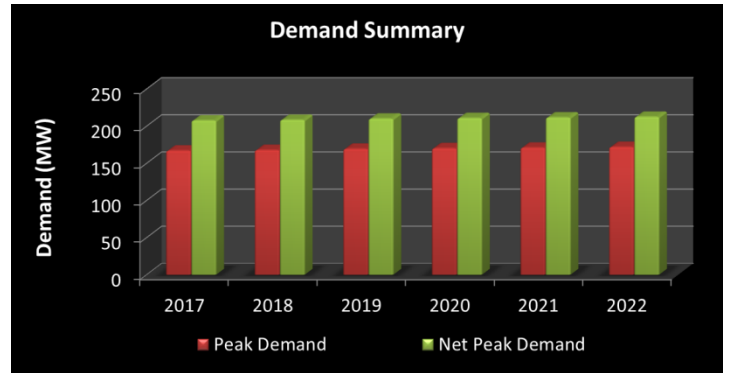
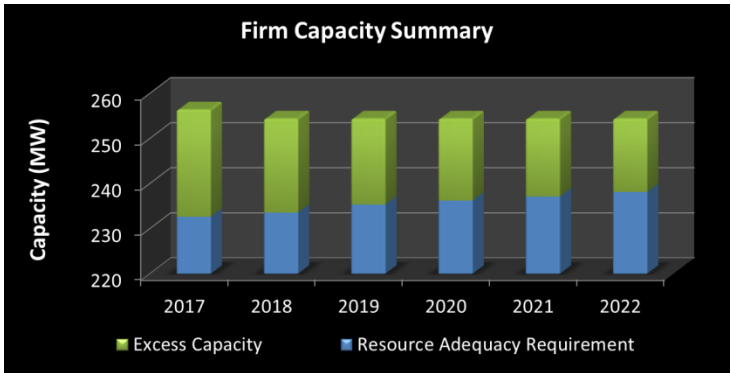
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 590 | 590 | 590 | 590 | 590 | 590 | 590 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 206 | 208 | 208 | 208 | 208 | 108 | |
| Firm Capacity Sales | MW | 88 | 53 | 53 | 53 | 53 | 53 | |
| Confirmed Retirements | MW | 16 | 16 | 16 | 16 | 16 | 16 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 708 | 745 | 745 | 745 | 745 | 645 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 557 | 564 | 571 | 578 | 585 | 593 | |
| Firm Power Purchases | MW | 24 | 24 | 24 | 24 | 24 | 24 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 534 | 541 | 548 | 555 | 562 | 569 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 598 | 605 | 613 | 621 | 629 | 637 | |
| Excess Capacity | MW | 111 | 140 | 132 | 124 | 116 | 8 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

MISSOURI RIVER ENERGY SERVICES



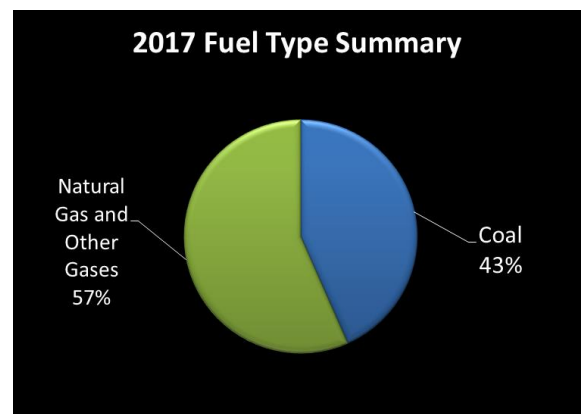
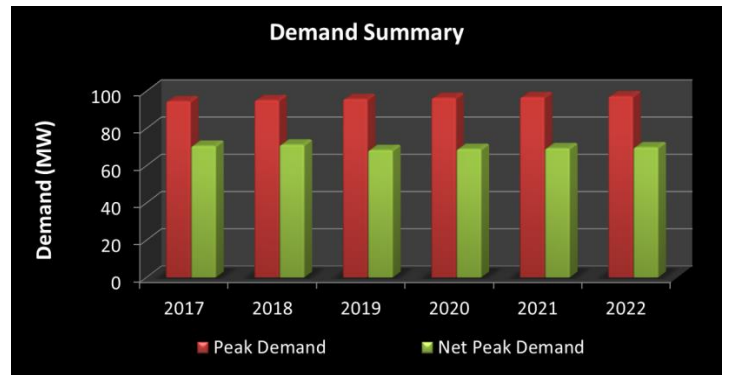
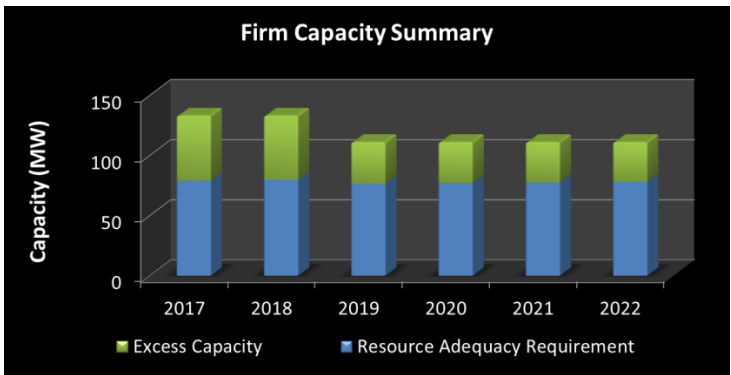
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 496 | 496 | 496 | 496 | 496 | 496 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 34 | 189 | 154 | 154 | 154 | 154 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 462 | 307 | 342 | 342 | 342 | 342 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 232 | 235 | 237 | 237 | 241 | 242 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 232 | 235 | 237 | 237 | 241 | 242 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 8 | 12 | 16 | 20 | 24 | 27 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 260 | 264 | 265 | 266 | 270 | 271 | |
| Excess Capacity | MW | 202 | 43 | 77 | 76 | 72 | 71 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

MUNICIPAL ENERGY AGENCY OF NEBRASKA



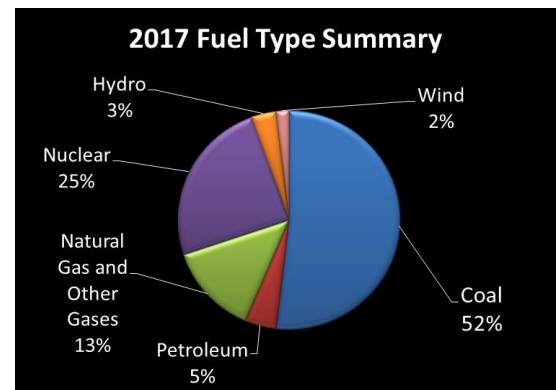
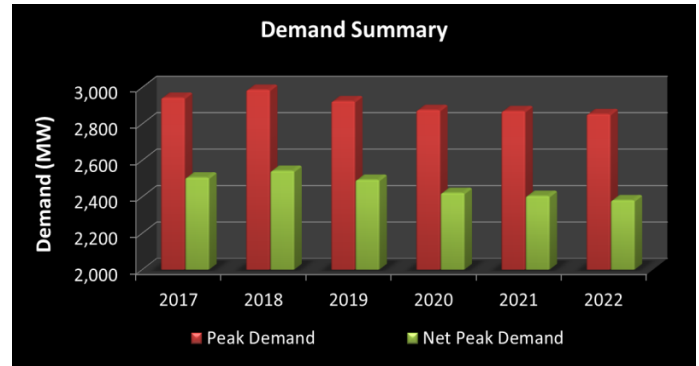
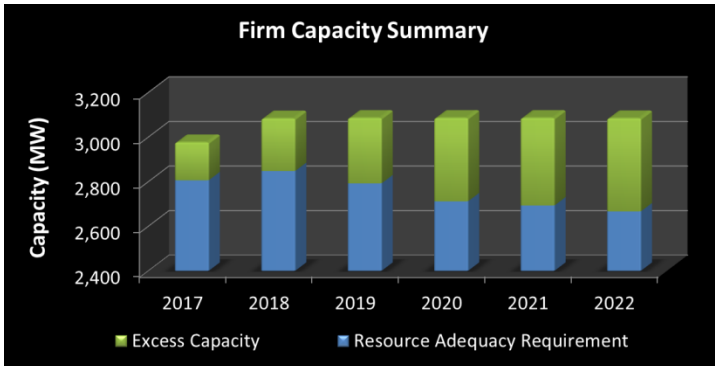
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 190 | 188 | 188 | 188 | 188 | 188 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 66 | 66 | 66 | 66 | 66 | 66 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 256 | 254 | 254 | 254 | 254 | 254 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 167 | 168 | 170 | 170 | 171 | 172 | |
| Firm Power Purchases | MW | 20 | 20 | 20 | 20 | 20 | 20 | |
| Firm Power Sales | MW | 62 | 62 | 62 | 62 | 62 | 62 | |
| Controllable and Dispatchable DR - Available | MW | 1 | 1 | 1 | 1 | 1 | 1 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 208 | 209 | 210 | 211 | 212 | 213 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 233 | 234 | 235 | 236 | 237 | 238 | |
| Excess Capacity | MW | 24 | 21 | 19 | 18 | 17 | 16 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |
| | % | 23.4% | 22.0% | 21.1% | 20.6% | 20.2% | 19.6% | |

NEBRASKA CITY UTILITIES



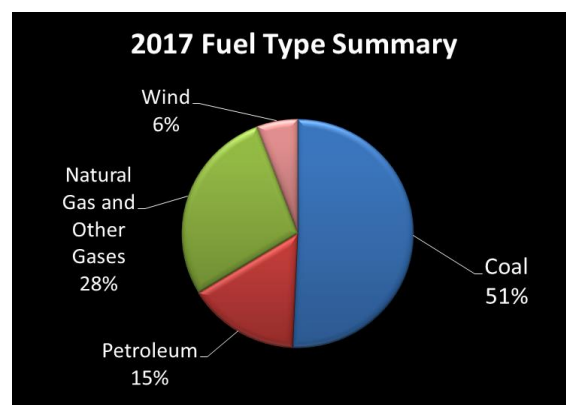
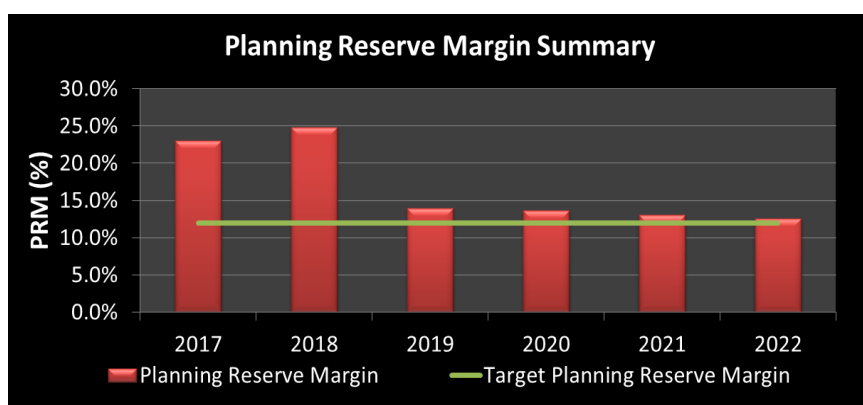
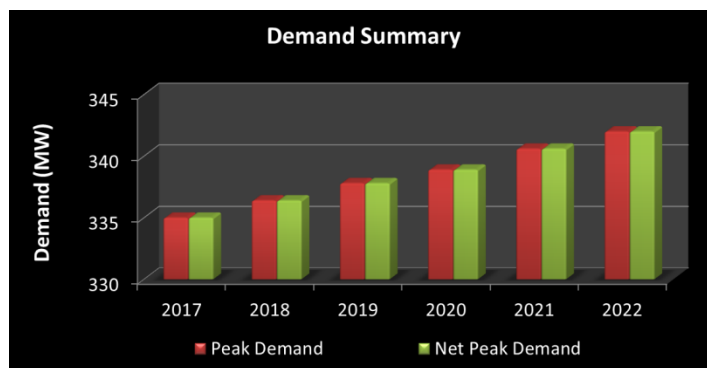
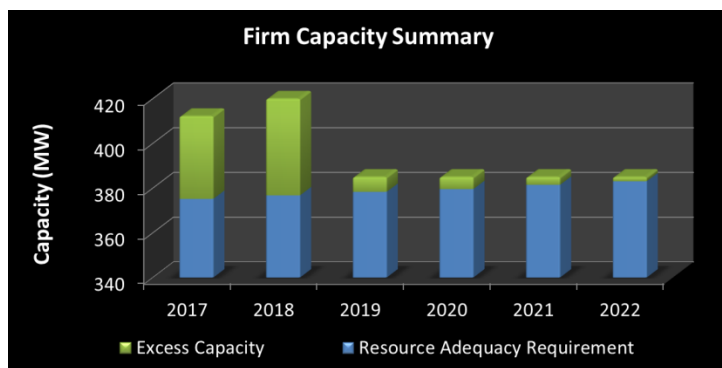
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|
| Firm Capacity Resources | MW | 38 | 38 | 38 | 38 | 38 | 38 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 11 | 11 | 11 | 11 | 11 | 11 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 49 | 49 | 49 | 49 | 49 | 49 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 37 | 37 | 37 | 37 | 37 | 37 | |
| Firm Power Purchases | MW | 8 | 8 | 8 | 8 | 8 | 8 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 29 | 29 | 29 | 29 | 29 | 29 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 33 | 33 | 32 | 32 | 32 | 32 | |
| Excess Capacity | MW | 16 | 16 | 16 | 16 | 16 | 16 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | 67.0% | 67.7% | 68.3% | 68.3% | 68.9% | 68.9% |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

NEBRASKA PUBLIC POWER DISTRICT



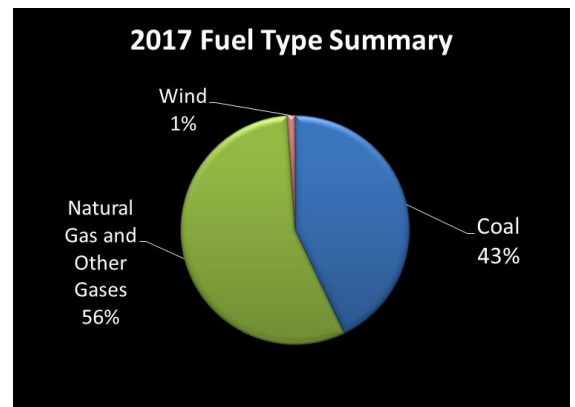
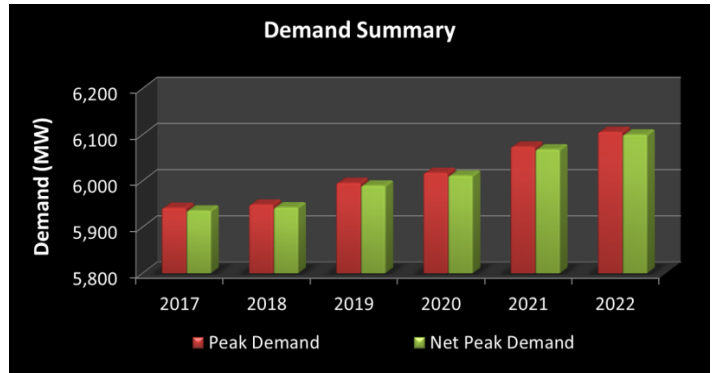
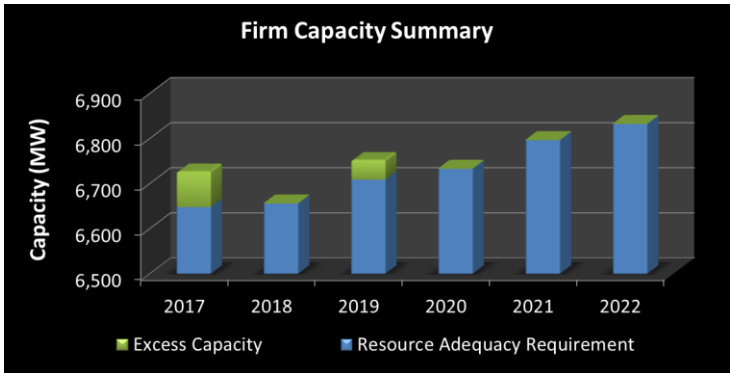
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 3,072 | 3,077 | 3,054 | 3,054 | 3,054 | 3,053 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 195 | 198 | 198 | 198 | 198 | 198 | |
| Firm Capacity Sales | MW | 281 | 191 | 166 | 166 | 166 | 166 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 10 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 2,976 | 3,083 | 3,086 | 3,086 | 3,086 | 3,084 | |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 2,943 | 2,987 | 2,925 | 2,876 | 2,870 | 2,854 | |
| Firm Power Purchases | MW | 473 | 473 | 473 | 473 | 473 | 473 | |
| Firm Power Sales | MW | 35 | 29 | 42 | 19 | 8 | 1 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 2,506 | 2,543 | 2,493 | 2,421 | 2,405 | 2,381 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 4 | 7 | 10 | 13 | 17 | 20 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | 2,806 | 2,848 | 2,792 | 2,712 | 2,693 | 2,667 | |
| Excess Capacity | MW | 170 | 236 | 293 | 374 | 393 | 417 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Planning Reserve Margin | % | 18.8% | 21.3% | 23.8% | 27.4% | 28.3% | 29.5% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

NORTHWESTERN ENERGY



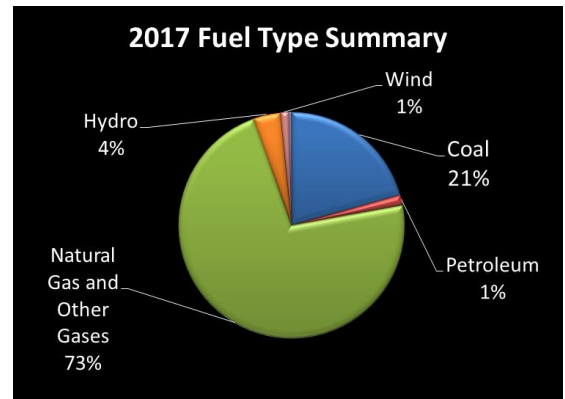
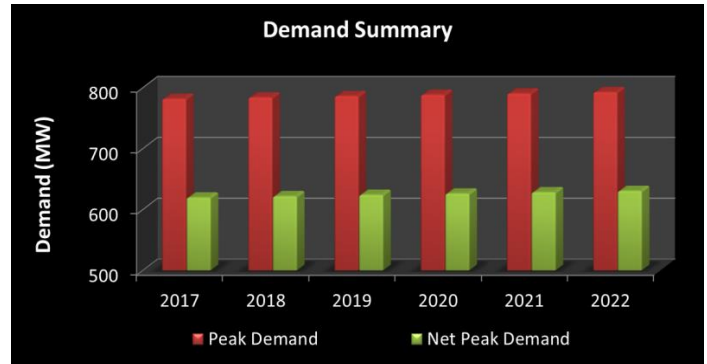
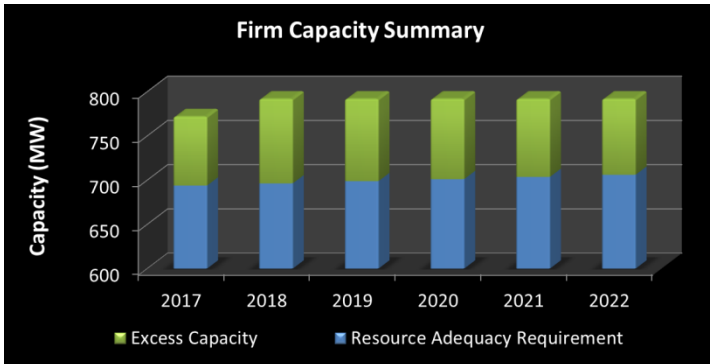
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 382 | 385 | 385 | 385 | 385 | 385 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 30 | 35 | 0 | 0 | 0 | 0 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 412 | 420 | 385 | 385 | 385 | 385 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 335 | 336 | 338 | 339 | 341 | 342 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 335 | 336 | 338 | 339 | 341 | 342 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 375 | 377 | 378 | 380 | 381 | 383 | |
| Excess Capacity | MW | 37 | 43 | 7 | 5 | 4 | 2 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 23.0% | 24.9% | 14.0% | 13.6% | 13.0% | 12.6% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

OKLAHOMA GAS & ELECTRIC COMPANY



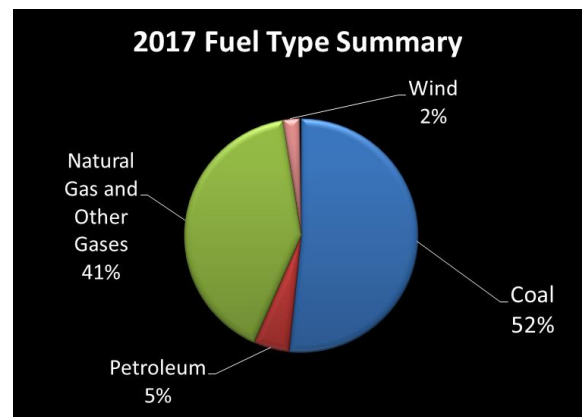
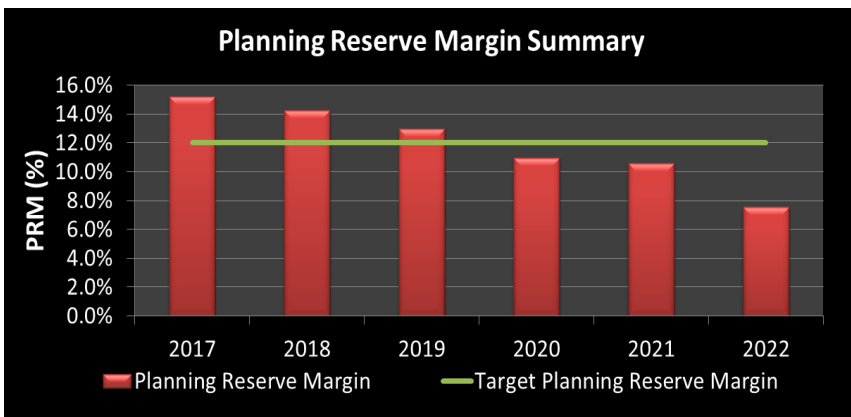
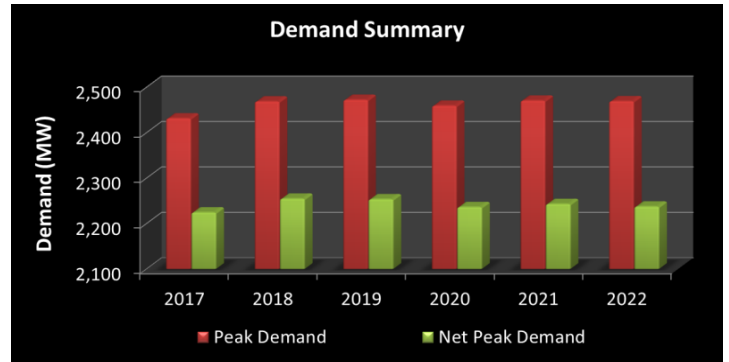
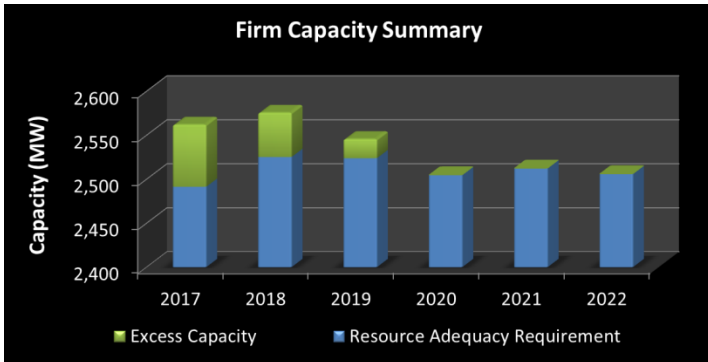
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 6,259 | 6,380 | 6,284 | 6,284 | 6,284 | 6,284 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 468 | 468 | 468 | 348 | 348 | 348 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 372 | 372 | 372 | 372 | 372 | |
| Scheduled Outages | MW | 0 | 521 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 6,727 | 6,327 | 6,752 | 6,632 | 6,632 | 6,632 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 5,942 | 5,949 | 5,996 | 6,017 | 6,074 | 6,106 | |
| Firm Power Purchases | MW | 6 | 6 | 6 | 6 | 6 | 6 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 5,936 | 5,943 | 5,990 | 6,011 | 6,068 | 6,100 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 162 | 222 | 248 | 273 | 300 | 326 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 6,648 | 6,656 | 6,709 | 6,733 | 6,796 | 6,832 | |
| Excess Capacity | MW | 79 | 0 | 44 | 0 | 0 | 0 | |
| Deficient Capacity | MW | 0 | 329 | 0 | 100 | 164 | 200 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 13.3% | 6.5% | 12.7% | 10.3% | 9.3% | 8.7% | |
| | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

OKLAHOMA MUNICIPAL POWER AUTHORITY



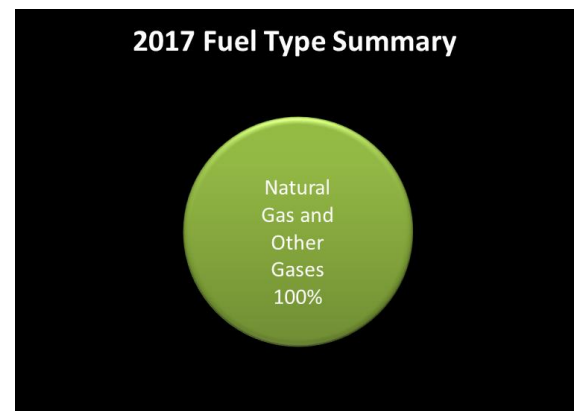
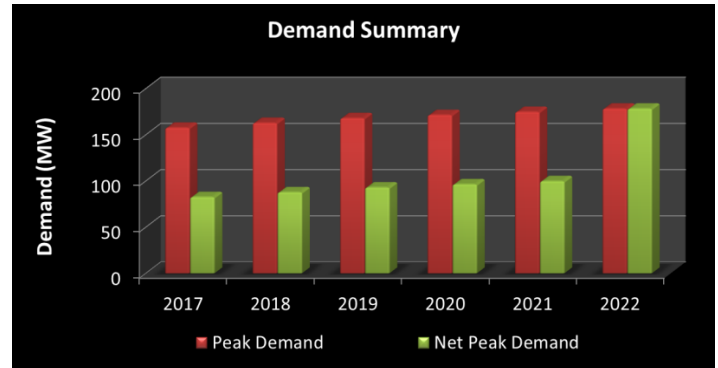
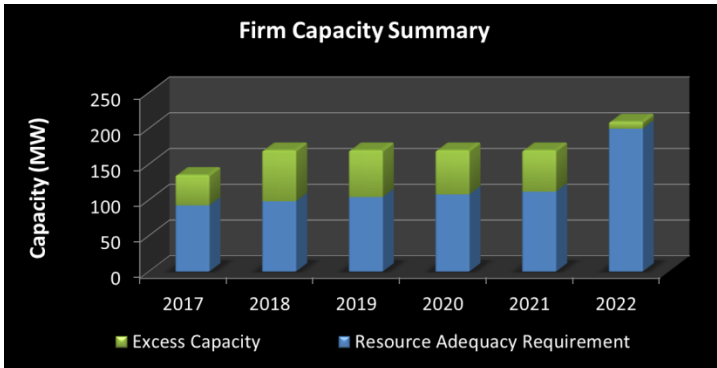
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 713 | 713 | 713 | 713 | 713 | 713 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 59 | 79 | 79 | 79 | 79 | 79 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 772 | 792 | 792 | 792 | 792 | 792 | |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 782 | 784 | 786 | 788 | 790 | 793 | |
| Firm Power Purchases | MW | 162 | 162 | 162 | 162 | 162 | 162 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 620 | 622 | 624 | 626 | 628 | 631 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | 694 | 696 | 699 | 701 | 704 | 706 | |
| Excess Capacity | MW | 78 | 95 | 93 | 91 | 88 | 86 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

OMAHA PUBLIC POWER DISTRICT



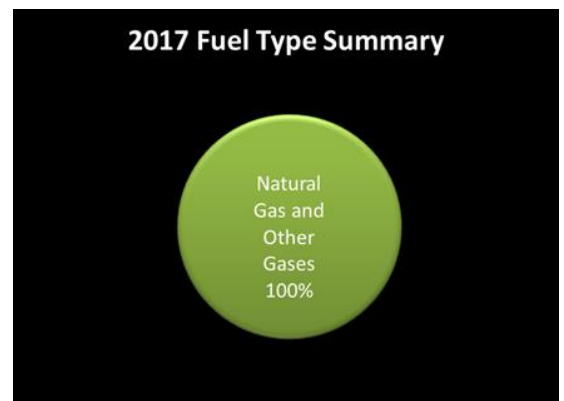
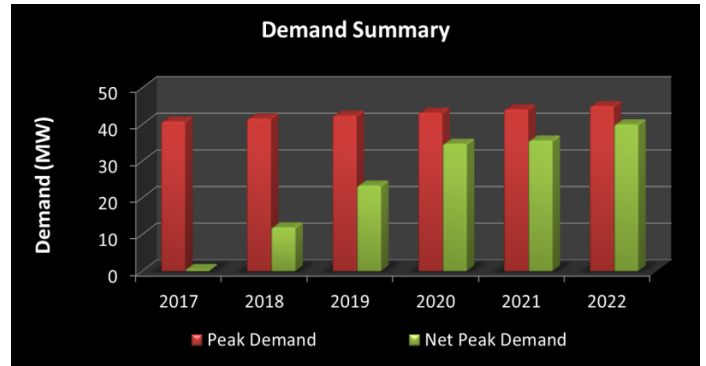
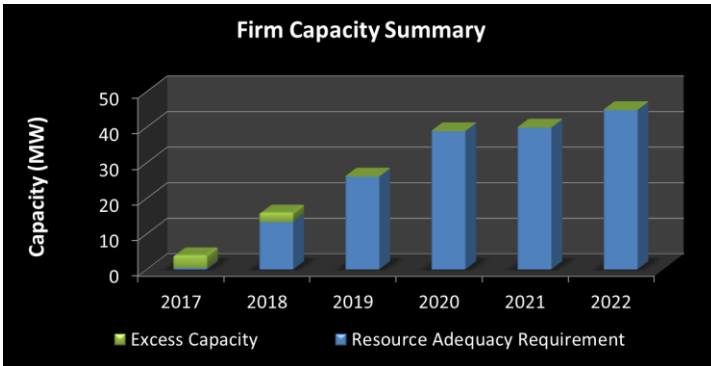
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 2,713 | 2,744 | 2,744 | 2,744 | 2,744 | 2,744 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 240 | 190 | 140 | 75 | 75 | 0 | |
| Firm Capacity Sales | MW | 387 | 359 | 339 | 339 | 339 | 339 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 4 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 2,562 | 2,576 | 2,546 | 2,481 | 2,481 | 2,406 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 2,431 | 2,469 | 2,472 | 2,459 | 2,471 | 2,469 | |
| Firm Power Purchases | MW | 87 | 87 | 87 | 87 | 87 | 87 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 88 | 95 | 100 | 104 | 109 | 113 | |
| Other Controllable and Dispatchable DEG - Available | MW | 32 | 32 | 32 | 32 | 32 | 32 | |
| Net Peak Demand (Forecasted) | MW | 2,225 | 2,255 | 2,254 | 2,236 | 2,243 | 2,237 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 3 | 3 | 3 | 3 | 3 | 3 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 2,491 | 2,525 | 2,524 | 2,505 | 2,512 | 2,506 | |
| Excess Capacity | MW | 71 | 50 | 22 | 0 | 0 | 0 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 24 | 31 | 100 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |
| | % | 15.2% | 14.2% | 13.0% | 10.9% | 10.6% | 7.5% | |

PEOPLE'S ELECTRIC COOPERATIVE



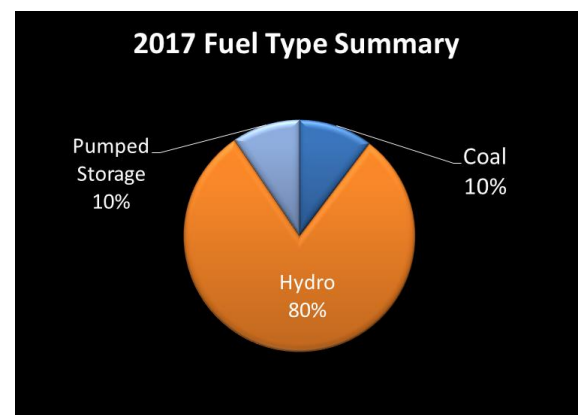
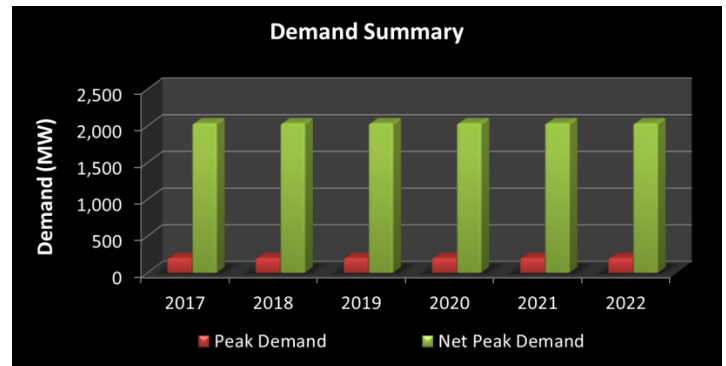
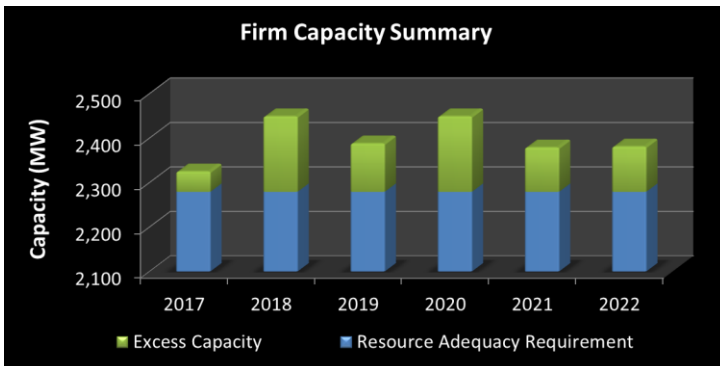
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|------------|------------|------------|------------|------|
| Firm Capacity Resources | MW | 60 | 73 | 73 | 73 | 73 | 73 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 75 | 97 | 97 | 97 | 97 | 137 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 135 | 170 | 170 | 170 | 170 | 210 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 158 | 163 | 168 | 171 | 175 | 178 | |
| Firm Power Purchases | MW | 75 | 75 | 75 | 75 | 75 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 83 | 88 | 93 | 96 | 100 | 178 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 93 | 98 | 104 | 108 | 112 | 200 | |
| Excess Capacity | MW | 42 | 71 | 65 | 62 | 58 | 10 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| Planning Reserve Margin | % | 63.4% | 93.1% | 82.3% | 75.8% | 69.8% | 17.5% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

SOUTH SIOUX CITY NEBRASKA



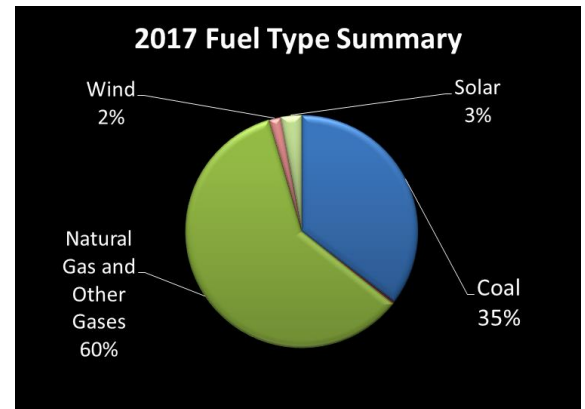
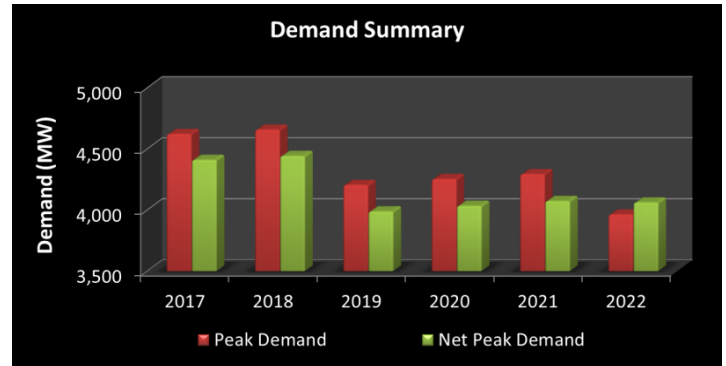
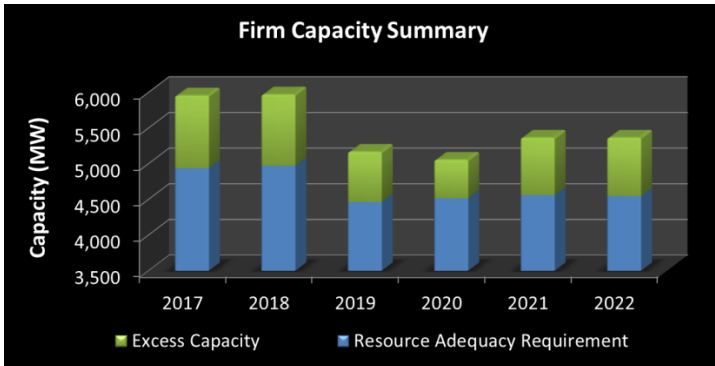
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|----------|-----------|-----------|-----------|-----------|-----------|------|
| Firm Capacity Resources | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 4 | 16 | 24 | 28 | 29 | 0 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 4 | 16 | 24 | 28 | 29 | 0 | |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 41 | 42 | 42 | 43 | 44 | 45 | |
| Firm Power Purchases | MW | 40 | 30 | 19 | 9 | 9 | 5 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 0 | 12 | 23 | 35 | 36 | 40 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | 0 | 13 | 26 | 39 | 40 | 45 | |
| Excess Capacity | MW | 4 | 3 | 0 | 0 | 0 | 0 | |
| Deficient Capacity | MW | 0 | 0 | 2 | 11 | 11 | 45 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Planning Reserve Margin | % | 900.0% | 34.5% | 3.0% | -19.3% | -18.5% | -100.0% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

SOUTHWESTERN POWER ADMINISTRATION



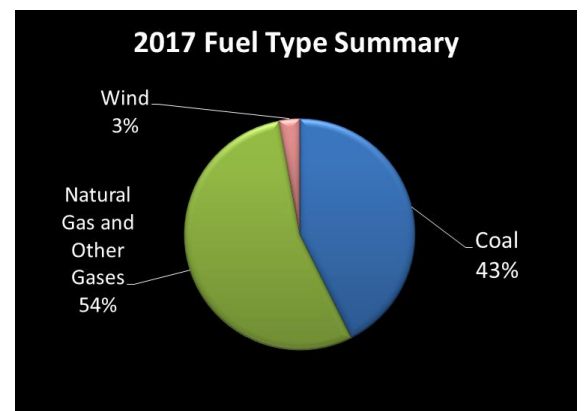
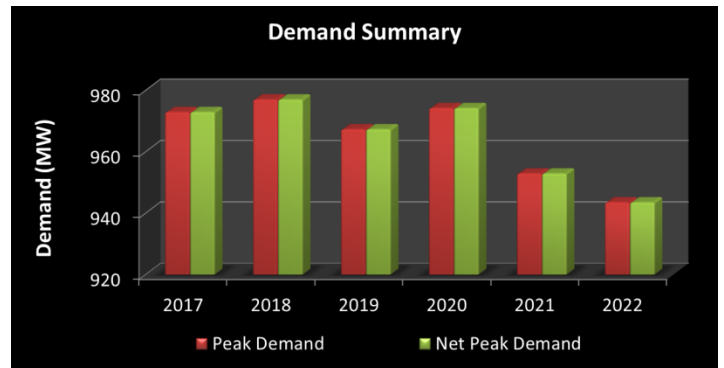
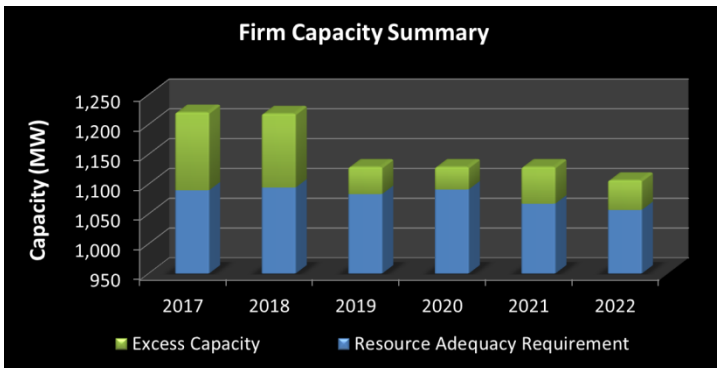
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Firm Capacity Resources | MW | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 | 2,355 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 213 | 143 | 143 | 143 | 143 | 143 | 143 |
| Firm Capacity Sales | MW | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 194 | 0 | 63 | 0 | 78 | 78 | 78 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 24 | 24 | 22 | 24 | 16 | 14 | 14 |
| Firm Capacity | MW | 2,325 | 2,449 | 2,388 | 2,449 | 2,379 | 2,381 | 2,381 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 203 | 203 | 203 | 203 | 203 | 203 | 203 |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Power Sales | MW | 1,832 | 1,832 | 1,832 | 1,832 | 1,832 | 1,832 | 1,832 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 2,035 | 2,035 | 2,035 | 2,035 | 2,035 | 2,035 | 2,035 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 2,236 | 2,236 | 2,236 | 2,236 | 2,236 | 2,236 | 2,236 |
| Excess Capacity | MW | 88 | 213 | 151 | 213 | 143 | 145 | 145 |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Planning Reserve Margin | % | 14.2% | 20.3% | 17.3% | 20.3% | 16.9% | 17.0% | 17.0% |
| SPP Target Planning Reserve Margin | % | 9.89% | 9.89% | 9.89% | 9.89% | 9.89% | 9.89% | 9.89% |

SOUTHWESTERN PUBLIC SERVICE COMPANY



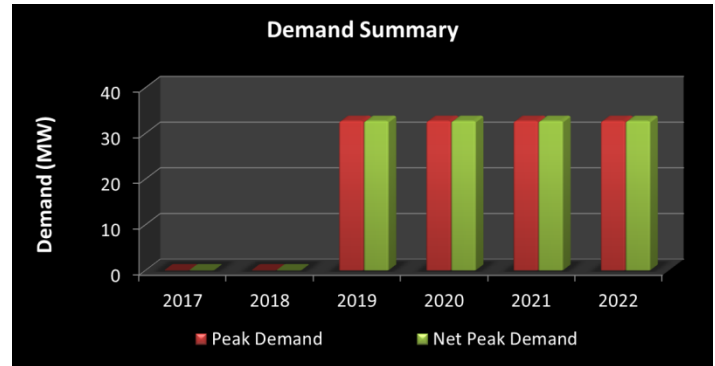
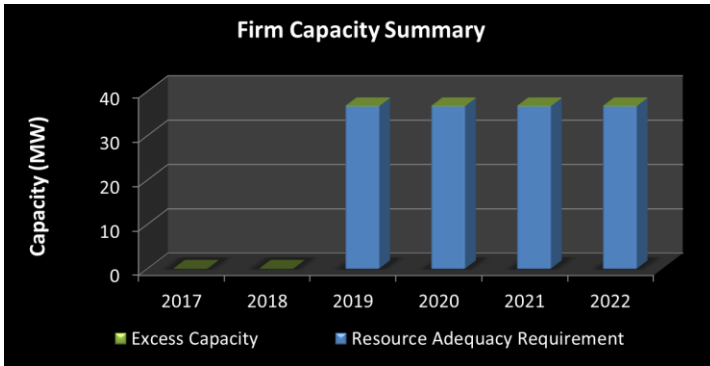
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 4,485 | 4,485 | 4,485 | 4,373 | 4,283 | 4,283 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 1,471 | 1,486 | 1,083 | 1,083 | 1,083 | 1,083 | |
| Firm Capacity Sales | MW | 0 | 0 | 400 | 400 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 112 | 202 | 202 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 5,956 | 5,971 | 5,168 | 5,056 | 5,366 | 5,366 | |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 4,622 | 4,657 | 4,205 | 4,253 | 4,293 | 3,963 | |
| Firm Power Purchases | MW | 171 | 171 | 171 | 171 | 171 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 150 | |
| Controllable and Dispatchable DR - Available | MW | 41 | 42 | 43 | 43 | 43 | 44 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 2 | 3 | 5 | 6 | 8 | |
| Net Peak Demand (Forecasted) | MW | 4,410 | 4,442 | 3,988 | 4,034 | 4,073 | 4,061 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | 4,939 | 4,975 | 4,467 | 4,518 | 4,562 | 4,548 | |
| Excess Capacity | MW | 1,017 | 996 | 701 | 538 | 804 | 818 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Planning Reserve Margin | % | 35.1% | 34.4% | 29.6% | 25.3% | 31.7% | 32.1% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

SUNFLOWER ELECTRIC POWER CORPORATION



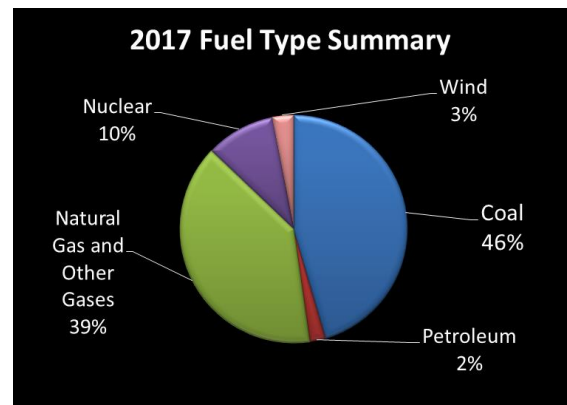
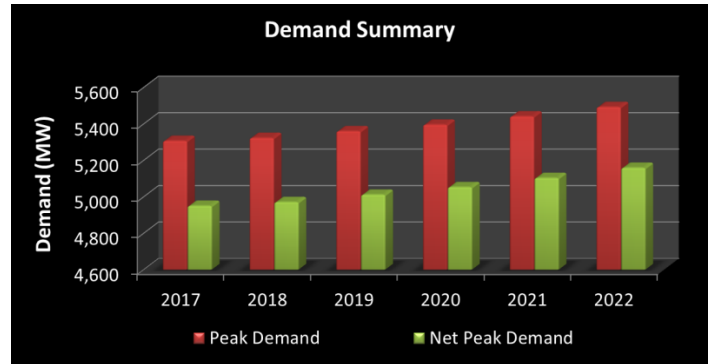
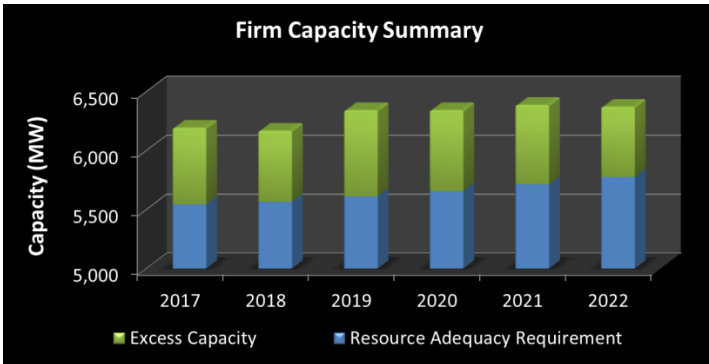
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 1,061 | 1,074 | 1,122 | 1,122 | 1,122 | 1,100 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 188 | 188 | 7 | 7 | 7 | 7 | |
| Firm Capacity Sales | MW | 29 | 44 | 0 | 0 | 0 | 0 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 1,220 | 1,218 | 1,129 | 1,129 | 1,129 | 1,107 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 973 | 977 | 967 | 974 | 953 | 944 | |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 973 | 977 | 967 | 974 | 953 | 944 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 1,090 | 1,094 | 1,083 | 1,091 | 1,067 | 1,057 | |
| Excess Capacity | MW | 131 | 124 | 45 | 38 | 62 | 50 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

WEST TEXAS MUNICIPALS



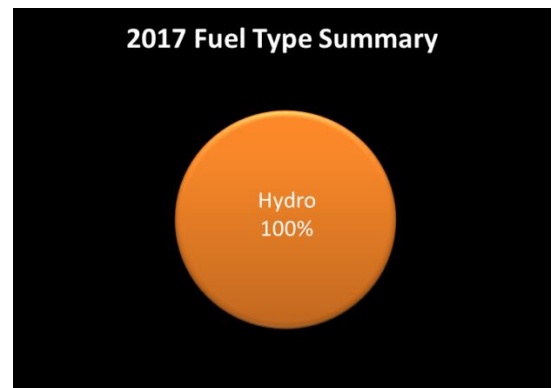
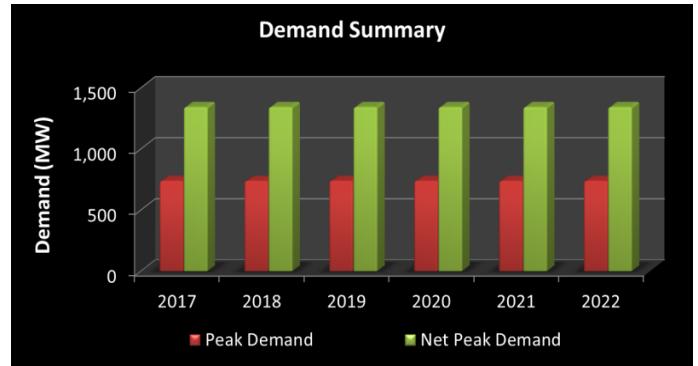
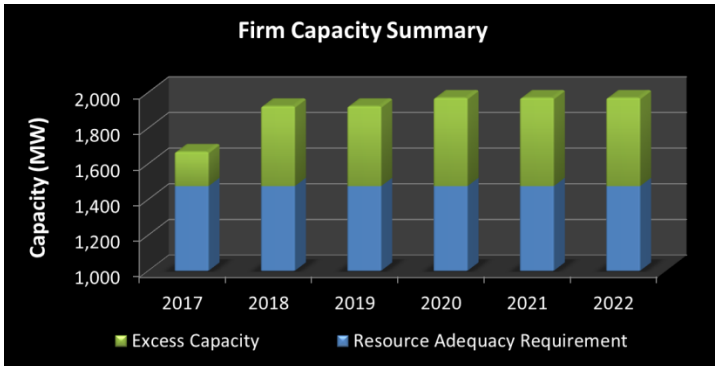
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|------------|------------|--------------|--------------|--------------|--------------|--------------|
| Firm Capacity Resources | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 0 | 0 | 37 | 37 | 37 | 37 | 37 |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 0 | 0 | 37 | 37 | 37 | 37 | 37 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 0 | 0 | 33 | 33 | 33 | 33 | 33 |
| Firm Power Purchases | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 0 | 0 | 33 | 33 | 33 | 33 | 33 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | --- | --- | 37 | 37 | 37 | 37 | 37 |
| Excess Capacity | MW | --- | --- | 0 | 0 | 0 | 0 | 0 |
| Deficient Capacity | MW | --- | --- | 0 | 0 | 0 | 0 | 0 |
| Planning Reserve Margin | % | --- | --- | 12.2% | 12.2% | 12.2% | 12.2% | 12.2% |
| SPP Target Planning Reserve Margin | % | --- | --- | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% |

WESTAR ENERGY



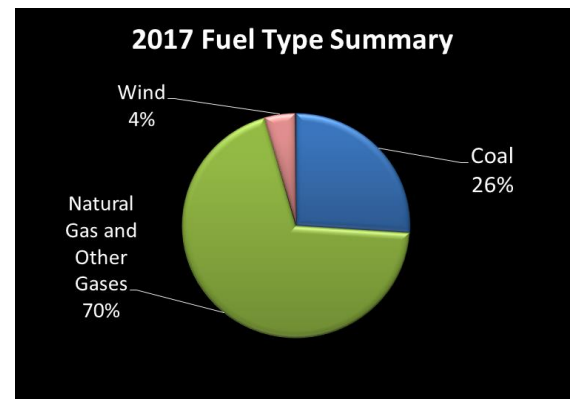
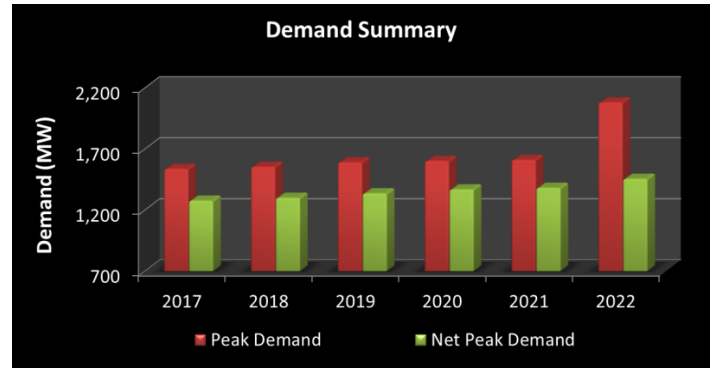
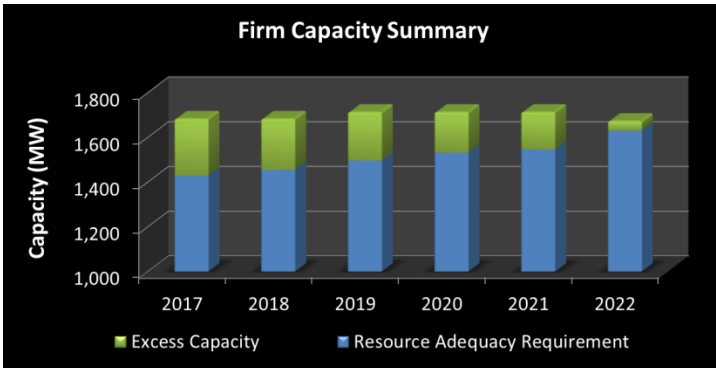
| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 6,527 | 6,527 | 6,527 | 6,527 | 6,527 | 6,527 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 433 | 383 | 420 | 355 | 275 | 209 | |
| Firm Capacity Sales | MW | 766 | 741 | 604 | 539 | 414 | 364 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 6,194 | 6,169 | 6,343 | 6,343 | 6,388 | 6,372 | |
| Demand Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Peak Demand (Forecasted) | MW | 5,307 | 5,323 | 5,360 | 5,396 | 5,441 | 5,492 | |
| Firm Power Purchases | MW | 112 | 112 | 112 | 112 | 112 | 112 | |
| Firm Power Sales | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 244 | 240 | 236 | 231 | 226 | 221 | |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net Peak Demand (Forecasted) | MW | 4,951 | 4,971 | 5,012 | 5,053 | 5,104 | 5,159 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Resource Adequacy Requirement | MW | 5,545 | 5,567 | 5,613 | 5,659 | 5,716 | 5,778 | |
| Excess Capacity | MW | 649 | 602 | 730 | 684 | 672 | 594 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | | % | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Planning Reserve Margin | % | 25.1% | 24.1% | 26.6% | 25.5% | 25.2% | 23.5% | |
| SPP Target Planning Reserve Margin | % | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% | |

WESTERN AREA POWER ADMINISTRATION



| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Firm Capacity Resources | MW | 2,406 | 2,406 | 2,406 | 2,406 | 2,406 | 2,406 | 2,406 |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity Purchases | MW | 2 | 2 | 2 | 4 | 4 | 4 | 4 |
| Firm Capacity Sales | MW | 440 | 440 | 440 | 440 | 440 | 440 | 440 |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scheduled Outages | MW | 0 | 45 | 45 | 0 | 0 | 0 | 0 |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Capacity Adjustments - Reductions | MW | 301 | 0 | 0 | 0 | 0 | 0 | 0 |
| Firm Capacity | MW | 1,667 | 1,923 | 1,923 | 1,970 | 1,970 | 1,970 | 1,970 |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 738 | 738 | 738 | 738 | 738 | 738 | 738 |
| Firm Power Purchases | MW | 144 | 144 | 144 | 144 | 144 | 144 | 144 |
| Firm Power Sales | MW | 748 | 748 | 748 | 748 | 748 | 748 | 748 |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Controllable and Dispatchable DEG - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Peak Demand (Forecasted) | MW | 1,342 | 1,342 | 1,342 | 1,342 | 1,342 | 1,342 | 1,342 |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 1,475 | 1,475 | 1,475 | 1,475 | 1,475 | 1,475 | 1,475 |
| Excess Capacity | MW | 192 | 448 | 448 | 495 | 495 | 495 | 495 |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Planning Reserve Margin | | | | | | | | |
| SPP Target Planning Reserve Margin | % | 24.2% | 43.3% | 43.3% | 46.8% | 46.8% | 46.8% | 46.8% |
| | % | 9.89% | 9.89% | 9.89% | 9.89% | 9.89% | 9.89% | 9.89% |

WESTERN FARMERS ENERGY SERVICES



| Firm Capacity Summary | | Unit | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| Firm Capacity Resources | MW | 1,359 | 1,359 | 1,359 | 1,359 | 1,359 | 1,359 | |
| Firm Capacity Resources (Other) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity Purchases | MW | 325 | 325 | 355 | 355 | 355 | 355 | |
| Firm Capacity Sales | MW | 0 | 0 | 0 | 0 | 0 | 40 | |
| Confirmed Retirements | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Scheduled Outages | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transmission Limitations | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Additions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Capacity Adjustments - Reductions | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firm Capacity | MW | 1,683 | 1,683 | 1,713 | 1,713 | 1,713 | 1,673 | |
| Demand Summary | | | | | | | | |
| Peak Demand (Forecasted) | MW | 1,537 | 1,554 | 1,590 | 1,601 | 1,610 | 2,080 | |
| Firm Power Purchases | MW | 460 | 460 | 460 | 460 | 460 | 610 | |
| Firm Power Sales | MW | 246 | 246 | 246 | 246 | 246 | 0 | |
| Controllable and Dispatchable DR - Available | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other Controllable and Dispatchable DEG - Available | MW | 47 | 40 | 40 | 19 | 15 | 15 | |
| Net Peak Demand (Forecasted) | MW | 1,276 | 1,300 | 1,336 | 1,368 | 1,381 | 1,455 | |
| Energy Efficiency and Conservation (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Standby Load Under Contract (Included in Peak Demand) | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Requirements Summary | | | | | | | | |
| Resource Adequacy Requirement | MW | 1,429 | 1,455 | 1,496 | 1,532 | 1,547 | 1,630 | |
| Excess Capacity | MW | 254 | 228 | 217 | 181 | 167 | 44 | |
| Deficient Capacity | MW | 0 | 0 | 0 | 0 | 0 | 0 | |
| Planning Reserve Margin | % | 31.9% | 29.5% | 28.2% | 25.3% | 24.1% | 15.0% | |

ER-2018-0145
and
ER-2018-146

KANSAS CITY POWER & LIGHT COMPANY
and
KANSAS CITY POWER LIGHT
GREATER OPERATIONS COMPANY

SCHEDULE JAR-D-6

HAS BEEN DEEMED

“CONFIDENTIAL”

IN ITS ENTIRETY