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**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO.: ER-2026-0143**

**DIRECT TESTIMONY**

**OF**

**JEFFREY T. KOPP**

**ON BEHALF OF**

**EVERGY MISSOURI METRO**

**Kansas City, Missouri  
February 2026**

**DIRECT TESTIMONY**

**OF**

**JEFFREY T. KOPP**

**Case No. ER-2026-0143**

1 **Q: Please state your name and business address.**

2 A: My name is Jeffrey (“Jeff”) T. Kopp. My business address is 9400 Ward Parkway,  
3 Kansas City, Missouri 64114.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by 1898 & Co., part of Burns & McDonnell Engineering Company,  
6 Inc. (“Burns & McDonnell”) as the Senior Managing Director of the Energy &  
7 Utilities Consulting department. Burns & McDonnell has been in business since  
8 1898, serving multiple industries, including the electric power industry. In 2025,  
9 Burns & McDonnell was rated No. 7 overall of the Top 500 Design Firms by the  
10 Engineering News Record (“ENR”). Burns & McDonnell was rated as the No. 1  
11 engineering design firm in the United States serving the electric power industry by  
12 ENR in 2025.

13 1898 & Co. and Burns & McDonnell have vast experience in both  
14 preparation of decommissioning studies and executing construction and demolition  
15 project, including hundreds of construction projects totaling more than \$3 billion  
16 dollars of construction projects on an annual basis, Burns & McDonnell has to win  
17 this work through competitive bidding processes, which requires us to be able to  
18 accurately prepare cost estimates.

1 Our long history, large market presence, and top industry rankings demonstrate our  
2 ability to effectively and accurately estimate costs. In addition, we have worked  
3 with demolition contractors over the years to refine our estimating process for  
4 decommissioning studies to align our costs with theirs.

5 **Q: Who are you testifying for?**

6 A: I am testifying on behalf of Evergy Metro, Inc. d/b/a Evergy Missouri Metro  
7 (“Evergy Missouri Metro”).

8 **Q: What are your responsibilities?**

9 A: I am a professional engineer with 24 years of experience consulting to electric  
10 utilities. I have been involved in numerous decommissioning studies and served as  
11 project manager or project director on the majority of them. I have helped prepare  
12 decommissioning studies on all types of power plants utilizing various technologies  
13 and fuels.

14 As a Senior Managing Director at 1898 & Co., I oversee a group of more  
15 than 330 engineers and consultants who provide consulting services to clients  
16 primarily in the electric power generation and electric power transmission  
17 industries, but also to other industrial and commercial clients. The services  
18 provided by this group of engineers and consultants include decommissioning  
19 studies, independent engineering assessments of existing power generation assets,  
20 economic evaluation of capital expenditure, new power generation development  
21 and evaluation, electric and water rate analysis, electric transmission planning,  
22 generation resource planning, renewable power development, and other related  
23 engineering and economic assessments.

1 **Q: Please describe your education, experience and employment history.**

2 A: I have a bachelor's degree in Civil Engineering from the University of Missouri –  
3 Rolla (now the Missouri University of Science and Technology) and a Master of  
4 Business Administration from the University of Kansas. I am a registered  
5 Professional Engineer in the states of Missouri, Florida, Indiana, and Illinois. My  
6 resume is provided as Attachment JTK-1.

7 **Q: Have you previously testified in a proceeding at the Missouri Public Service**  
8 **Commission (“MPSC” or “Commission”) or before any other utility**  
9 **regulatory agency?**

10 A: I have previously testified before this Commission on behalf of before this  
11 Commission on behalf of Evergy Missouri Metro. I have also provided testimony  
12 regarding power plant decommissioning costs as part of development of  
13 depreciation rates to the following commissions:

- 14 • Florida Public Service Commission
- 15 • Indiana Utility Regulatory Commission
- 16 • Kentucky Public Service Commission
- 17 • Minnesota Public Utilities Commission
- 18 • New Mexico Public Regulation Commission
- 19 • North Carolina Utilities Commission
- 20 • Corporation Commission of Oklahoma
- 21 • Public Utilities Commission of the State of North Dakota
- 22 • Public Utilities Commission of Texas
- 23 • State of New York Board on Electric Generation Siting

- 1           • The Regulatory Commission of Alaska
- 2           • The State Corporation Commission of the State of Kansas

3 **Q: Have you prepared or co-authored any studies or reports on decommissioning**  
4 **costs?**

5 A: Yes, throughout my career I have provided decommissioning cost estimating  
6 services for dozens of utilities throughout the United States in a majority of the  
7 states. I have been involved in the preparation of decommissioning cost estimate  
8 reports for over 300 plants. The units that I have prepared decommissioning cost  
9 estimates for have consisted of various technologies including coal-fired boilers,  
10 natural gas fired boilers, natural gas fired simple and combined cycle units, wind  
11 farms, hydroelectric power plants, storage facilities including batteries, and solar  
12 farms.

13 **Q: What is the purpose of your testimony?**

14 A: The purpose of my testimony is to describe and support Evergy Missouri Metro’s  
15 Decommissioning Cost Estimate Study (“Study”) prepared by me and my team for  
16 power generation assets in Missouri. A study has been completed to estimate the  
17 costs associated with full demolition and dismantlement of each of the assets, as  
18 well as retire-in-place scenarios for the thermal generation plants. This report sets  
19 forth the results of my decommissioning study, which is provided as Attachment  
20 JTK-2.

1 **Q: Were the Decommissioning Study attached to your testimony as Attachment**  
2 **JTK-2, and all Attachments prepared by you or under your direct**  
3 **supervision?**

4 A: Yes.

5 **Q: How does your testimony relate to other witnesses testifying in this**  
6 **proceeding?**

7 A: I present the results of the Decommissioning Study, while witness John Spanos uses  
8 the results of my study in his depreciation calculations on Evergy Missouri Metro's  
9 production plants for purposes of developing depreciation rates for Evergy  
10 Missouri Metro's electric generating plants, which are then used to calculate  
11 Evergy Missouri Metro's requested depreciation expense.

12 **Q: What recommendation are you making in your testimony?**

13 A: I recommend that the Commission find that the results of the Decommissioning  
14 Study are reasonable and appropriate for use as the basis for the cost of  
15 decommissioning estimates in the development of depreciation rates for Evergy  
16 Missouri Metro's electric generating plants.

17 **Q: Please describe the Decommissioning Study prepared for Evergy Missouri**  
18 **Metro.**

19 A. Evergy Missouri Metro retained 1898 & Co. to provide an estimate regarding the  
20 total cost, in 2025 dollars, for decommissioning each generation unit and the  
21 common facilities at each of the generating plants at the end of the useful life of  
22 each facility, net of salvage value for scrap materials at each facility. Additionally,  
23 cost estimates were developed for an alternative scenario of retirement-in-place for

1 the thermal generation assets, which excludes costs for demolition and site  
2 restoration. This retirement-in-place scenario represents only the costs associated  
3 with achieving “cold and dark” conditions at the site but does not include any  
4 ongoing costs associated with the units, nor does it include any demolition costs  
5 that will be incurred in future. Evergy will still be responsible for those future  
6 liabilities, but they have been excluded from these retire-in-place estimates.

7 **Q. What was the extent of your personal involvement in the preparation of the**  
8 **Decommissioning Study?**

9 A. I served as the 1898 & Co. Managing Director on the Decommissioning Study. I  
10 worked directly with the individuals and parties involved in the preparation of the  
11 cost estimates in the Decommissioning Study. I was responsible for the overall  
12 project and was involved in the development of the decommissioning assumptions,  
13 decommissioning estimating methodology, preparation and review of the estimates,  
14 and preparation and review of the report.

15 **Q. What power generation assets did you evaluate in the Decommissioning**  
16 **Study?**

17 A. We evaluated eight electric generating assets (“Plants”), consisting of the fuel types  
18 listed in the following table:

1

**Table 1: Power Generation Assets**

<b>Plant</b>	<b>Primary Fuel Type</b>
Hawthorn	Coal/Natural Gas
Hawthorn Solar	Solar
Iatan	Coal
LaCygne	Coal
Northeast	Natural Gas
Osawatomie	Natural Gas
Spearville Wind	Wind
West Gardner	Natural Gas

2

3

Descriptions of the Plants covered by the Decommissioning Study are provided in

4

Section 2.0 of Attachment JTK-2.

5 **Q.**

**At the time the Decommissioning Study was prepared, were all the Plants in service?**

6

7 **A.**

All units were in service at the time the Decommissioning Study was performed except for the following units which were out of service: Units 1 through 4 of Hawthorn.

9

10 **Q.**

**What level of decommissioning and demolition was assumed to be performed at each of the sites?**

11

12 **A.**

For the renewable power assets, the basis of the estimates was that all sites will be restored to a condition suitable for industrial or agricultural use. The sites will have all above grade buildings and equipment removed, foundations removed to three feet below grade, be rough graded, and seeded. The sites can remain in this condition in perpetuity, until the site is specifically redeveloped for industrial or agricultural use.

13

14

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17



1 For Evergy Metro’s thermal assets, we prepared cost estimates for two scenarios.  
2 We prepared a full decommissioning and demolition cost estimate, similar to the  
3 renewable power assets. The basis of these estimates was that all sites will be  
4 restored to a condition suitable for industrial or agricultural use. The sites will have  
5 all above grade buildings and equipment removed, foundations removed to three  
6 feet below grade, be rough graded, and seeded.

7 We also prepared cost estimates for a retire-in-place scenario. These  
8 estimates are inclusive of direct costs associated with decommissioning and  
9 retiring-in-place the plant equipment and facilities. The direct costs in these  
10 estimates include environmental remediation costs for asbestos removal and other  
11 hazardous material handling and disposal, as well as costs for closing any ponds  
12 and cleaning up potentially contaminated soil and preparing the facilities to remain  
13 in this state for an indefinite length of time. Full dismantlement and removal of  
14 above or below grade structures, foundations, and equipment was not included.  
15 Rather, costs are inclusive of decommissioning activities to achieve “cold and dark”  
16 conditions at the units. Additional potential liabilities such as carrying costs and the  
17 ultimate removal of assets and structures are excluded for all thermal assets in this  
18 scenario. Therefore, this scenario excludes a significant portion of the end-of-life  
19 costs associated with these assets, which will be incurred by Evergy Metro.

20 **Q. Please summarize the results of your Decommissioning Study.**

21 A. For purposes of calculating depreciation rates, the full demolition costs were  
22 included for the renewable power assets and retire-in-place costs were included for  
23 the thermal assets. The total net cost associated with all units that was included in

1 the depreciation calculations was estimated to be \$192,597,350. The breakdown of  
 2 this cost is presented and discussed in Attachment JTK-2 and summarized in the  
 3 table below. Additionally, the full demolition scenario costs for the thermal assets  
 4 can be found in Attachment JTK-2.

5 **Table 2: Site-Specific Decommissioning Cost Summary (2025\$)**

<b>Plant</b>	<b>Total Cost</b>	<b>Total Credits</b>	<b>Total Net Cost</b>
Hawthorn	\$30,099,000.00		\$30,099,000.00
Hawthorn Solar	\$1,364,300.00	\$(417,700.00)	\$946,600.00
Iatan	\$61,990,000.00		\$61,990,000.00
LaCygne	\$89,886,000.00		\$89,886,000.00
Northeast	\$1,936,000.00		\$1,936,000.00
Osawatomie	\$395,000.00		\$395,000.00
Spearville Wind	\$13,793,750.00	\$(7,991,000.00)	\$5,802,750.00
West Gardner	\$1,542,000.00		\$1,542,000.00
<b>Fleet Total</b>	<b>\$201,006,050.00</b>	<b>\$(8,408,700.00)</b>	<b>\$192,597,350.00</b>

6  
 7 **Q. Explain the type of costs reflected in a decommissioning study.**

8 A. Decommissioning study cost estimates generally include direct costs associated  
 9 with decommissioning and demolishing the plant equipment and facilities and  
 10 restoring the sites to a condition suitable for industrial or agricultural use. The direct  
 11 costs include environmental remediation costs for asbestos removal and other  
 12 hazardous material handling and disposal, as well as costs for removing and  
 13 disposing of contaminated soil. They also include demolition and removal of above  
 14 grade structures and foundations to 3 feet below grade along with site restoration  
 15 compatible with surrounding land. In addition to these direct costs,  
 16 decommissioning studies also generally include estimates of indirect costs to be  
 17 incurred by an entity during decommissioning and contingency costs, both of which  
 18 I address in the next section of my testimony.

1 **Q. What direct costs were included in the retire-in-place estimates developed for**  
2 **the thermal plants?**

3 A. When a plant is retired in place, major structures and systems are secured and  
4 stabilized rather than fully dismantled and removed. Above-grade buildings and  
5 equipment remain standing but are placed in a safe, non-operational condition, with  
6 hazards removed or isolated. Foundations, subsurface structures, and utilities also  
7 remain in place, except where limited excavation is required to eliminate safety or  
8 environmental risks.

9           Underground piping systems are drained, isolated, and capped, and are then  
10 abandoned in place. Where specific systems—such as circulating-water piping—  
11 pose settlement, voiding, or environmental concerns, they may be exposed to the  
12 top of the pipe and backfilled with on-site material to ensure long-term stability.  
13 Site grading is performed only as needed to ensure proper drainage and maintain  
14 environmental compliance. Any ponds or water management areas are secured,  
15 with liners removed or stabilized, and then brought to a condition that matches  
16 surrounding topography.

17           Because future use of each site is unknown, placing the property into a  
18 stable, compliant, condition compliant with all applicable laws and regulatory  
19 requirements provides maximum flexibility for long-term planning. This approach  
20 limits ongoing liabilities and reduces future carrying costs associated with  
21 maintaining partially active or deteriorating facilities. It also aligns with common  
22 industry practice and mirrors Evergy Missouri Metro’s experience across multiple  
23 retired units.

1           By retiring the site in place in this manner, the property remains suitable for  
2 a range of potential future uses such as redevelopment for industrial purposes, reuse  
3 for another power generation facility, or future sale while avoiding the near-term  
4 cost of full demolition. However, this excludes carrying costs and ultimate  
5 demolition at a future date.

6 **Q.   What additional direct costs were included in the full demolition estimates for**  
7 **the renewable power plants and for the full demolition scenario for the**  
8 **thermal plants?**

9 A.   For these full decommissioning and demolition scenarios, these estimates also  
10 include removal of above-grade structures and foundations to 3 feet below grade,  
11 including roads, parking lots, and other site facilities. After demolition and removal  
12 of all equipment and facilities, site restoration, including rough grading and  
13 seeding, is included to achieve a site condition compatible with surrounding land.

14 **Q.   What approach was used to develop the direct cost estimates in the**  
15 **Decommissioning Study?**

16 A.   As mentioned previously, cost estimates were developed by considering direct  
17 costs, indirect costs, and contingency. The direct cost estimates reflect what an  
18 outside contractor procured through a competitive bidding process would  
19 reasonably charge Evergy Missouri Metro to complete the scope of work for each  
20 scenario.

21           Site specific direct costs were developed using a “bottoms up” cost  
22 estimating approach, where estimates are built from scratch using detailed, site-  
23 specific quantity takeoffs paired with unit pricing.

1 **Q. Where are the assumptions outlined in the Decommissioning Study?**

2 A. The assumptions applied to the cost estimates are documented in Sections 3.3 and  
3 3.4 of the Decommissioning Study (Attachment JTK-2).

4 **Q. How were specific quantities and unit pricing estimated for purposes of**  
5 **estimating site-specific direct costs?**

6 A. As part of the decommissioning study, site-specific cost estimates were developed  
7 using a “bottoms up” cost-estimating approach, in which costs are built from the  
8 ground up through detailed, site-specific quantity takeoffs paired with appropriate  
9 unit pricing.

10 Consistent with the methodology outlined in the Study, 1898 & Co.  
11 prepared these estimates by evaluating quantities associated with existing  
12 equipment and systems through visual inspections, review of engineering drawings,  
13 and professional judgment. This resulted in quantified estimates of the tasks  
14 required to safely demolish or retire-in-place each facility. Current market pricing  
15 for labor and equipment was then used to establish unit rates for each activity. These  
16 unit rates were applied to the calculated quantities to determine the total direct costs  
17 associated with retirement-in-place activities for each site. Where applicable,  
18 potential salvage values for equipment valued as scrap metal, were applied as  
19 credits and subtracted from gross direct costs to arrive at net retirement costs in  
20 2025 dollars.

21 For the retire in place costs, direct costs represent the estimated amounts a  
22 contractor would bid to perform the activities necessary to place the plant into a  
23 long-term, non-operational, stable condition. Unlike a full decommissioning and

1 demolition scenario, these tasks do not include wholesale removal of buildings,  
2 major equipment, or foundations. Instead, tasks may include isolating, draining,  
3 and capping underground piping; securing and stabilizing equipment; addressing  
4 environmental requirements such as hazardous material removal or mitigation;  
5 performing limited grading or drainage improvements; removing or stabilizing  
6 liners or containment systems where required; and conducting any minimal asset  
7 recovery consistent with a retire-in-place strategy.

8 For the full demolition costs, costs were included for removing the  
9 generating equipment, foundations, and all other on-site improvements to 3 feet  
10 below grade.

11 Quantity estimates for these tasks may include, but are not limited to: labor  
12 hours for demolition, disposal costs for debris, disposal costs for hazardous  
13 materials, linear feet of piping to be drained and capped; quantities of hazardous  
14 materials requiring stabilization or removal; square footage of areas needing liner  
15 removal or stabilization; cubic yards of grading; and labor hours required to  
16 complete the retirement-in place- activities.

17 1898 & Co. derived these quantities using a combination of visual facility  
18 inspections, engineering drawing reviews, internal databases of plant system  
19 quantities, and professional experience. Market-based labor, material, and  
20 equipment rates were then applied to these quantities to determine direct costs for  
21 each site. Where applicable, unit pricing for limited salvageable materials was  
22 applied to determine anticipated recovery values, which were deducted from the  
23 direct costs to compute net project costs in 2025 dollars.

1 **Q. What sources did you rely on to develop the direct cost estimates for the**  
2 **Plants?**

3 A. The labor rates, equipment costs, and disposal costs used to develop the Study cost  
4 estimates were specific to the locations in which the work is to be performed. These  
5 rates were applied to the quantities associated with each Plant to determine the total  
6 cost of decommissioning. Disposal costs were obtained from publicly available  
7 information and communications with landfills located in the area in which the  
8 work is to be performed to result in estimates that are site-specific and account for  
9 local markets, costs and conditions.

10 Pricing developed by the Fastmarkets was also used to develop scrap  
11 credits, as discussed in more detail in Section V of my testimony. The Fastmarkets  
12 is an industry standard publication routinely relied upon by demolition contractors.  
13 Scrap costs also included a deduction for transportation from each site to the  
14 selected scrap market in order to result in estimates that are site-specific and  
15 account for local markets, costs and conditions.

16 **Q. Did you rely on any other sources?**

17 A. Yes. The RS Means online database was utilized to obtain labor rates, equipment  
18 costs, and disposal costs for the study area. RS Means labor rates are national  
19 averages and include site cost indices to provide localized costs to make the costs  
20 site specific. RS Means is widely utilized within the construction industry as a tool  
21 for estimating and projecting project costs.

1 **Q. Are these sources generally accepted in the industry and relied upon by other**  
2 **regulatory authorities in setting decommissioning costs?**

3 A. Yes. These sources are recognized industry-wide, and I have relied on them for the  
4 decommissioning cost estimates I have prepared for over 300 plants. Many of these  
5 cost estimates have been approved in numerous regulatory proceedings in which I  
6 have participated.

7 **Q. What type of labor did you assume would perform the demolition tasks**  
8 **outlined in the cost estimates?**

9 A. I utilized the B-8 Crew from RS Means, which is an appropriate crew for these  
10 types of activities.

11 **Q. Did you consider whether the resale of any equipment would be feasible to**  
12 **offset your estimated decommissioning costs?**

13 A. Yes. I do not believe resale is feasible due to the limited and opportunistic market  
14 for equipment resale. In our recent experience with power plant retirements, it has  
15 been difficult to find buyers of used equipment willing to pay more than the scrap  
16 value of the equipment because the market for specific buyers with a need for the  
17 specific equipment at the time of decommissioning is typically very limited.  
18 Furthermore, according to the U.S. Energy Information Administration, nearly 100  
19 gigawatts of fossil-fueled capacity has been retired in the last decade and there are  
20 over 52 gigawatts (“GW”) of additional announced retirements in the next 5 years,  
21 so it is anticipated the market would be flooded with used equipment and the  
22 potential buyers of that used equipment would be even further reduced, putting



1 downward pressure on used equipment pricing. Therefore, it is reasonable to  
2 assume the expected value of the equipment should be its scrap value.

3 **Q. Has your recent actual project experience been consistent with the approach**  
4 **of valuing equipment as scrap rather than resale?**

5 A. Yes.

6 **Q. Have you relied on this same methodology in preparing decommissioning cost**  
7 **estimates in the past?**

8 A. Yes. Over the years, we have worked closely with demolition contractors to  
9 develop decommissioning cost estimates representative of activities that the  
10 demolition contractors will perform. We have prepared numerous  
11 decommissioning studies for various clients considering different technologies in  
12 several different states and have provided services to clients on decommissioning  
13 project execution that have included review and evaluation of bids from demolition  
14 contractors. We have utilized this experience preparing decommissioning cost  
15 estimates as well as reviewing demolition contractor bids to confirm the  
16 reasonableness of the cost estimates we have prepared.

17 In addition, I am able to rely on my firm's long history, experience and  
18 familiarity with demolition practices to effectively and accurately estimate costs  
19 that are consistent with the industry and trends. For instance, we have reviewed  
20 competitive bids from demolition contractors for power plant demolition projects  
21 and worked with demolition contractors over the years to refine our estimating  
22 process to align our costs with theirs.

1 **Q. Have you used this same model to estimate decommissioning costs for both**  
2 **fossil fuel and renewable power plant assets in the past?**

3 A. Yes, I have used the same methodology and model to estimate decommissioning  
4 costs for various types of non-nuclear power generating assets. Technology specific  
5 variations of the model have been developed and utilized over the last 10 years for  
6 asset types including coal fired boilers, natural gas fired boilers, natural gas fired  
7 combined cycles and simple cycles, peakers, reciprocating engines, hydroelectric  
8 power plants, wind farms, and solar farms. These models were utilized in the  
9 development of the cost estimates for each decommissioning and decommissioning  
10 study referenced in my resume, JTK-1.

11 **Q. Does your Study dictate to the decommissioning contractor the actual**  
12 **decommissioning methods that will be used to dismantle these facilities in the**  
13 **future and therefore does your cost estimate rely on those means and methods?**

14 A. No. At the time Evergy Missouri Metro decides to decommission the Plants, its  
15 decommissioning contractor will determine the means and methods by which the  
16 decommissioning will occur. It will be the contractor's responsibility to determine  
17 means and methods that result in safely decommissioning and demolishing the  
18 Plants at the lowest possible cost. However, based on our experience with  
19 decommissioning projects, discussions with demolition contractors, and  
20 discussions with other Evergy Missouri Metro utilities and other utilities  
21 throughout the United States, the cost estimates we prepared are reflective of what  
22 contractors would bid, through a competitive bidding process given the option to  
23 select safe and efficient means and methods.

1 **Q. What is included in the project indirect costs?**

2 A. Indirect costs include those costs expected to be incurred by Evergy Missouri Metro  
3 during the decommissioning process that are in addition to the direct costs paid to  
4 demolition contractors. This includes the internal administrative costs (e.g.,  
5 permitting, fees, Evergy Missouri Metro employee allocated expense) or costs  
6 associated with third-party project managers or engineers providing oversight  
7 during demolition activities, inspections, and testing to confirm that remediation  
8 has been completed.

9 **Q. How were the indirect costs determined?**

10 A. Indirect costs were determined as a percentage of the direct costs, as is a typical  
11 approach when preparing these types of cost estimates. We developed the  
12 percentage of direct costs that was applied to determine the indirect costs based on  
13 input from Evergy Missouri Metro regarding their approach to managing the  
14 execution of the decommissioning projects.

15 **Q. What is included in the contingency costs?**

16 A. A contingency cost includes unspecified but reasonably expected additional costs  
17 to be incurred by the company during the execution of decommissioning activities.  
18 For any project, there is always some uncertainty associated with work conditions,  
19 the scope of work, and how the work will be performed. There is also some  
20 uncertainty associated with estimating the quantities for decommissioning of  
21 facilities. These uncertainties result from the age of the Plants, limits on drawing  
22 availability, and the absence of detailed data for environmental remediation (such  
23 as identification, lead based paint, soil testing around transformers, etc.), prior to

1 preparation of these types of studies. Contingency costs account for these  
2 unspecified but expected costs and are in addition to the direct costs associated with  
3 the base decommissioning known scope items.

4 **Q. Are contingency costs a necessary component of your cost estimates?**

5 A. Yes. Contingency costs are a critical component for estimating the cost of almost  
6 any large construction project. They account for the potential circumstances that  
7 can result in an increase in costs over the direct costs for known scope items under  
8 ideal conditions. Some of these costs cannot be determined until the  
9 decommissioning process has begun. Therefore, contingency is applied on top of  
10 the base estimated cost to formulate a reasonable estimate to dismantle the  
11 generating facilities.

12 **Q. Please explain.**

13 A. It is important to note that many of these full demolition or retire-in-place projects  
14 will not commence until well into the future and site-specific conditions cannot  
15 always be identified until decommissioning has commenced. It is not uncommon  
16 for unexpected conditions to occur, including but not limited to items such as  
17 contractors discovering unaccounted for structures or facilities, like underground  
18 storage tanks, after demolition has begun that have to be dismantled, or a greater  
19 quantity of contaminated soil than was originally anticipated. Also, the estimated  
20 direct costs assume ideal weather and working conditions, which is an appropriate  
21 starting point for cost estimating but realistically cannot be achieved for the  
22 duration of a project and can result in cost increases. These types of circumstances

1 can lead to significantly increased costs that are difficult to specifically identify this  
2 far in advance of a project.

3 **Q. Is including contingency costs in a decommissioning project standard industry**  
4 **practice?**

5 A. Yes. The application of contingency is not only appropriate, but also standard  
6 industry practice. Even on a project where firm pricing has been agreed upon with  
7 a successful bidder, it is typical that a client carries some level of contingency to  
8 cover potential change orders. It is even more important to carry contingency on  
9 the planning level cost estimates, such as those presented in the Decommissioning  
10 Study.

11 **Q. Does a decommissioning project require a higher level of contingency than a**  
12 **greenfield construction project?**

13 A. Yes. When compared to the contingency assigned to a new construction project,  
14 the contingency on a decommissioning project should be higher because older  
15 facilities with long operating histories often lack site plans or drawings, well-  
16 defined quantities of structural materials, environmental records, or foundation or  
17 subsurface information. To that end, the units analyzed in this Decommissioning  
18 Study will have been in-service for more than 20 years by the time they are  
19 decommissioned.

20 **Q. What contingency costs are you recommending in your Study?**

21 A. I have recommended a contingency cost of 20 percent on top of the direct costs.  
22 The percentage was based on similar decommissioning cost contingencies I have

1 prepared for decommissioning projects for other electric utilities that have been  
2 approved by regulatory agencies in other states.

3 **Q. How were scrap values calculated?**

4 A. Scrap metal prices used in the development of the scrap credit were based on a  
5 review of current pricing trends for various types of materials published by  
6 Fastmarkets, which reports the prices paid for scrap metals in transactions  
7 worldwide. The salvage value of equipment was included in the cost estimates  
8 based on scrap metal prices from the Fastmarkets report, less a deduction for  
9 transporting the scrap to market. This methodology is appropriate because  
10 demolition contractors routinely rely on the values published by Fastmarkets to  
11 develop the prices they are willing to credit a demolition project for scrap metals  
12 because this publication also provides information regarding the price the  
13 demolition contractors can expect to receive when they resell the scrap metals to a  
14 scrap metal broker or scrap metal processor.

15 **Q. Is Fastmarkets a reputable source for calculating scrap pricing?**

16 A. Yes. Fastmarkets is the leading independent supplier of market intelligence and  
17 pricing to the North American metals industries and publisher of the widely used  
18 reference prices for scrap. Fastmarkets has extensive experience in reporting scrap  
19 prices in a wide range of grades and locations. Fastmarkets has been reporting on  
20 the U.S. scrap market for more than 100 years, providing benchmark prices to users  
21 in the scrap metal industry. Fastmarkets develops index prices based on actual  
22 transactions, which are reported by market participants conducting scrap metal  
23 trades.

1 **Q. What are your recommendations for the value of scrap metal applied in the**  
2 **Study?**

3 A. Table 3-1 in the Study shows the scrap metal prices used. As noted above, the  
4 markets value for each type of scrap metal was adjusted to account for  
5 transportation costs, in order to determine the net value of the scrap material. I  
6 recommend using these scrap metal values.

7 **Q. How were transportation costs calculated for purposes of valuing the scrap**  
8 **metal?**

9 A. Transportation costs include the costs necessary to haul the scrap metal to the scrap  
10 market location. Costs for transportation are based on current published railroad  
11 tariffs and the costs to truck the material from the site to the rail line.

12 **Q. What are the total cost estimates for decommissioning and retiring-in-place**  
13 **Evergy Missouri Metro's production plants resulting from the**  
14 **Decommissioning Study?**

15 A. The resulting decommissioning cost estimates, including the credits for scrap  
16 materials, are summarized below. This table includes the full demolition of the  
17 renewable power assets, and the retire-in-place scenario for the thermal plants.  
18 Table 3 excludes the full demolition and site restoration cost estimates for the  
19 thermal assets. These costs are further detailed in Appendix A of the Study.

1

**Table 3: Site-Specific Decommissioning Cost Summary (2025\$)**

<b>Plant</b>	<b>Total Cost</b>	<b>Total Credits</b>	<b>Total Net Cost</b>
Hawthorn	\$30,099,000.00		\$30,099,000.00
Hawthorn Solar	\$1,364,300.00	\$(417,700.00)	\$946,600.00
Iatan	\$61,990,000.00		\$61,990,000.00
LaCygne	\$89,886,000.00		\$89,886,000.00
Northeast	\$1,936,000.00		\$1,936,000.00
Osawatomie	\$395,000.00		\$395,000.00
Spearville Wind	\$13,793,750.00	\$(7,991,000.00)	\$5,802,750.00
West Gardner	\$1,542,000.00		\$1,542,000.00
<b>Fleet Total</b>	<b>201,006,050.00</b>	<b>\$(8,408,700.00)</b>	<b>\$192,597,350.00</b>

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3

**Q. Are the decommissioning costs set forth in your testimony and Attachment JTK-2 reasonable and necessary estimates for purposes of calculating depreciation rates for Evergy Missouri Metro in this proceeding?**

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**A.** Yes. These costs are reasonably reflective of the actual costs necessary for Evergy Missouri Metro to complete the scenarios outlined. We recommend that full demolition and site restoration scenarios be utilized as the basis of setting electric rates, as that accounts for the full liability associated with the assets. However, in this case, Evergy Missouri Metro is utilizing the retire-in-place scenario for the thermal plants as the basis for setting electric rates. This represents the bare minimum costs that should be included for setting electric rates and for Evergy Missouri Metro to use for planning for decommissioning costs going forward.

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**Q: Does this conclude your testimony?**

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**A:** Yes, it does.



**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

In the Matter of Evergy Metro, Inc. d/b/a Evergy     )  
Missouri Metro's Request for Authority to         )  
Implement A General Rate Increase for Electric     )  
Service                                                     )     Case No. ER-2026-0143

**AFFIDAVIT OF JEFFREY T. KOPP**

**STATE OF MISSOURI**                     )  
                                                  ) **ss**  
**COUNTY OF JACKSON**                 )

Jeffrey T. Kopp, being first duly sworn on his oath, states:

1. My name is Jeffrey T. Kopp. I work in Kansas City, Missouri and I am employed by 1898 & Co., part of Burns & McDonnell Engineering Company, Inc. as Senior Managing Director of the Energy & Utilities department.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Evergy Missouri Metro consisting of twenty-three (23) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

\_\_\_\_\_  
Jeffrey T. Kopp

Subscribed and sworn before me this 5<sup>th</sup> day of February 2026.



\_\_\_\_\_  
Notary Public

My commission expires: Nov. 24, 2028



## Jeff Kopp, PE

Senior Managing Director, Energy & Utilities Consulting

### Education

B.S. / Civil Engineering  
MBA / Business Administration

### Registrations

- Professional Engineer  
(FL, IL, IN, MO)

24 years with 1898 & Co.  
25 years of experience

Visit my [LinkedIn](#) profile.



Jeff is the Managing Director of Utility Consulting at 1898 & Co., part of Burns & McDonnell. He and his team specialize in consulting services for power generation and transmission and distribution projects. This includes power plant decommissioning studies, energy project development, due diligence reviews, resource planning, renewable project development, rate studies and analysis, transmission planning, distribution planning, and grid modernization.

### PROJECT EXPERIENCE

#### Decommissioning Study / Evergy Kansas / 2025

Project director on a decommissioning study for the entire fleet of power generating facilities owned by Evergy in Kansas. The evaluation is currently being performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included several coal-fired plants, natural gas-fired simple and combined cycle units, and wind farms.

#### Decommissioning Study / Duke Energy North Carolina, South Carolina / 2024

Project director on a decommissioning study for the entire fleet of power generating facilities owned by Duke Energy Carolinas and Duke Energy Progress. The evaluations were performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included coal-fired plants, natural gas-fired simple and combined cycle units, gas fired boilers, hydro-electric plants, and solar projects.

#### Decommissioning Study / Southwestern Public Service Texas, New Mexico / 2024

Project director on a decommissioning study for the entire fleet of power generating facilities owned by Southwestern Public Service. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included coal-fired plants, natural gas-fired simple cycle units, and gas fired boiler projects. The report and results are being used in support of depreciation rates as part of the rate case filing.

**TESTIMONY EXPERIENCE**

Utility Company	Regulatory Agency	Docket No.	Subject
Evergy	The State Corporation Commission of the State of Kansas	Docket No. 23-EKCE-775-RTS	Rate Case - Decommissioning Costs
Duke Energy Kentucky	Kentucky Public Service Commission	Case No. 2022-00372	Rate Case - Decommissioning Costs
XcelEnergy	New Mexico Public Regulation Commission	Case No. 22-00286-UT	Rate Case - Decommissioning Costs
XcelEnergy	Public Utility Commission of Texas	PUC Docket No. 54634	Rate Case - Decommissioning Costs
Evergy Missouri Metro	Public Service Commission of the State of Missouri	Case No. ER-2022-0129	Rate Case - Decommissioning Costs
Northern Indiana Public Service Company	Indiana Utility Regulatory Commission	Cause No. 45772	Rate Case - Decommissioning Costs
Centerpoint Energy Indiana South	Indiana Utility Regulatory Commission	Cause No. 45722	Securitization Filing - Decommissioning Costs
Evergy Missouri Metro	Public Service Commission of the State of Missouri	Case No. ER-2022-0129	Rate Case - Decommissioning Costs
Evergy Missouri West	Public Service Commission of the State of Missouri	Case No. ER-2022-0130	Rate Case - Decommissioning Costs
Florida Power & Light Company	Florida Public Service Commission	Docket No. 20210015-EI	Rate Case - Decommissioning Costs
Duke Energy Florida	Florida Public Service Commission	Docket No. 20210016-EI	Rate Case - Decommissioning Costs
Tampa Electric Company	Florida Public Service Commission	Docket No. 20200264-EI	Rate Case - Decommissioning Costs
Big Rivers Electric Corporation	Kentucky Public Service Commission	2019-00269	Enforcement of Rate and Service Standards - Decommissioning
XcelEnergy	Public Utility Commission of Texas	PUC Docket No. 49831	Rate Case - Decommissioning Costs
XcelEnergy	New Mexico Public Regulation Commission	Case No. 19-00170-UT	Rate Case - Decommissioning Costs
Duke Energy Indiana	Indiana Utility Regulatory Commission	Cause No. 45253	Rate Case - Decommissioning Costs
Caphe Energy	State of New York Board on Electric Generation Siting	Case No. 18-F-0262	Certificate of Environmental Compatibility and Public Need - Decommissioning Costs
Caphe Energy	State of New York Board on Electric Generation Siting	Case No. 16-F-0559	Certificate of Environmental Compatibility and Public Need - Decommissioning Costs
Oklahoma Gas and Electric	The Corporation Commission of the State of Oklahoma	PUD 201800140	Rate Case - Decommissioning Costs
Golden Valley Electric Association	The Regulatory Commission of Alaska	U-18-010	Retirement Report for Healy Unit 1 - Decommissioning Costs
Progress Energy Florida	Florida Public Service Commission	090079-EI	Rate Case - Decommissioning Costs
Otter Tail Power Company	Minnesota Public Utilities Commission	E017/M-10-1082	Advanced Determination of Prudence - A Q C S Upgrades
Otter Tail Power Company	Public Service Commission of the State of North Dakota	PU-11-165	Advanced Determination of Prudence - A Q C S Upgrades
XcelEnergy	Public Utilities Commission of the State of Colorado	14AL-0660E	Rate Case - Decommissioning Costs
XcelEnergy	Public Utilities Commission of the State of Colorado	16A-0231E	2016 Revised Depreciation Rates
Florida Power & Light Company	Florida Public Service Commission	160021-EI; 160062-EI	Rate Case - Decommissioning Costs
Duke Energy Kentucky	Kentucky Public Service Commission	2017-00321	Rate Case - Decommissioning Costs
Duke Energy Progress	North Carolina Utilities Commission	Docket No. E-2, Sub 1142	Rate Case - Decommissioning Costs
Duke Energy Carolinas	North Carolina Utilities Commission	Docket No. E-7, Sub 1146	Rate Case - Decommissioning Costs
Oklahoma Gas and Electric	Corporation Commission of Oklahoma	Cause No. PUD 201700496	Rate Case - Decommissioning Costs

## PROJECT EXPERIENCE

### Decommissioning Study / Tucson Electric Power Arizona / 2024

Project director on a decommissioning study for the entire fleet of power generating facilities owned by Tucson Electric Power. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included a coal-fired plant, natural gas-fired simple and combined cycle units, and solar projects.

### Decommissioning Study / Evergy Missouri / 2024

Project director on a decommissioning study for the entire fleet of power generating facilities owned by Evergy Missouri West. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included several coal-fired plants, natural gas-fired simple and combined cycle units, and wind farms.

### Decommissioning Study / CenterPoint Energy Indiana South Indiana / 2023

Project director on a decommissioning study for the entire fleet of power generating facilities owned by CenterPoint Energy Indiana South. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included coal-fired plants, natural gas-fired simple and combined cycle units, landfill gas, wind farms, and solar projects.

### Decommissioning Study / Duke Energy North Carolina, South Carolina, Kentucky, Florida / 2022

Project director on a decommissioning study for the entire fleet of power generating facilities owned by Duke Energy Carolinas, Duke Energy Progress, Duke Energy Kentucky, and Duke Energy Florida. The evaluations were performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included coal-fired plants, natural gas-fired simple and combined cycle units, gas fired boilers, hydro-electric plants, and solar projects. Subsequent to the studies, Jeff provided written and oral testimony in Duke Energy rate hearings in and Kentucky regarding the study findings.

### Decommissioning Study / Northern Indiana Public Service Co. Indiana / 2022

Project director on a decommissioning study for the entire fleet of power generating facilities owned by Northern Indiana Public Service Company. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included coal-fired plants, natural gas-fired simple and combined cycle units, hydro-electric plants, wind farms, solar farms, and battery energy storage projects. Subsequent to the studies, Jeff provided written and oral testimony in Duke Energy rate hearings in North Carolina and Kentucky regarding the study findings.

### Decommissioning Study / CenterPoint Energy Indiana South Indiana / 2022

Project director on a decommissioning study for the coal-fired AB Brown plant owned by CenterPoint Energy Indiana South. The evaluation was performed to determine the cost to demolish the unit and restore the site at the end of its useful life to support regulatory filings. Subsequent to the study, Jeff provided written regarding the study findings.

### Decommissioning Study / Evergy Kansas, Missouri / 2021

Project director on a decommissioning study for the entire fleet of power generating facilities owned by Evergy in the States of Kansas and Missouri. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included several coal-fired plants, natural gas-fired simple and combined cycle units, and wind farms. Subsequent to the study, Jeff is available to provide written and oral testimony in Evergy's rate case hearing regarding the study findings.

### Decommissioning Study / FPL Energy Florida, Georgia / 2020

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by FPL Energy and Gulf Power in the States of Florida and Georgia. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included several coal-fired plants, natural gas-fired simple and combined cycle units, and solar generating facilities. Subsequent to the study, Jeff provided written testimony in FPL Energy's rate case hearing regarding the study findings.

## Decommissioning Study / Xcel Energy

Colorado / 2020

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Xcel Energy in the State of Colorado. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included several coal-fired plants, natural gas-fired simple and combined cycle units, and hydroelectric plants. Subsequent to the study, Jeff was available to provide written and oral testimony in Xcel Energy's rate hearing regarding the study findings.

## Decommissioning Study / Apex Clean Energy

New York / 2019

Project manager on a decommissioning study for a wind farm being developed in New York. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support Calpine's application to construct a major electric generating facility under Article 10 of the New York Public Service Law. Subsequent to the study, Jeff provided written testimony in the Article 10 public hearings regarding the study findings.

## Decommissioning Study / Calpine

New York / 2019

Project manager on a decommissioning study for a wind farm being developed in New York. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support Calpine's application to construct a major electric generating facility under Article 10 of the New York Public Service Law. Subsequent to the study, Jeff provided written testimony in the Article 10 public hearings regarding the study findings.

## Decommissioning Study / Southwestern Public Service

Texas, New Mexico / 2018

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Southwestern Public Service. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included coal-fired plants, natural gas-fired simple cycle units, and gas fired boiler projects. The report and results are being used in support of depreciation rates as part of the rate case filing. Jeff provided support through the regulatory process with written testimony in Southwestern Public Service's rate hearings regarding the study findings.

## Decommissioning Study / Duke Energy

Indiana / 2018

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Duke Energy Indiana. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included coal-fired plants, natural gas-fired simple and combined cycle units, solar projects, and a hydro-electric plant. Jeff provided support through the regulatory process with written testimony in Duke Energy Indiana's rate hearing regarding the study findings.

## Decommissioning Study / Golden Valley Electric Association

Alaska / 2018

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Golden Valley Electric Association. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included a coal-fired plant, diesel and naphtha fired combustion turbine units, a battery energy storage facility, and a wind farm. Jeff provided written testimony in Golden Valley's Compliance Hearing regarding the retirement of their Healy Unit 1 project. Jeff also provided written testimony in Golden Valley's rate hearing regarding the study findings.

## Decommissioning Study / Owensboro Municipal Utilities

Kentucky / 2018

Project manager on a decommissioning study for coal fired generating facility owned by Owensboro Municipal Utilities. The evaluation was performed to determine the options for retiring the plant and associated costs. Options evaluated included placing one of the units into layup with the potential to restart at a later date, retirement in place, or full demolition and site restoration.

## Decommissioning Study / Duke Energy

Florida / 2018

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Duke Energy Florida. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included a coal-fired plant, natural gas-fired simple and combined cycle units, and solar projects. Subsequent to the study, Jeff provided written testimony in Duke Energy Florida's rate hearing regarding the study findings.

### Decommissioning Study / Tucson Electric Power

Arizona / 2018

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Tucson Electric Power. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included a coal-fired plant, natural gas-fired simple and combined cycle units, and solar projects. Subsequent to the study, Jeff was available to provide written and oral testimony in Tucson Electric Powers's rate hearing regarding the study findings.

### Decommissioning Study / Public Service of New Mexico

New Mexico / 2018

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Duke Energy Florida. The evaluation is being performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation includes a coal-fired plant, natural gas-fired simple and combined cycle units, and solar projects.

### Decommissioning Study / Capital Power

Illinois / 2018

Project manager on a decommissioning study for a wind farm being developed in Illinois. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support the county zoning application. Subsequent to the study, Jeff will be available to provide written and oral testimony in the county zoning hearings regarding the study findings.

### Decommissioning Study / Calpine

New York / 2018

Project manager on a decommissioning study for a wind farm being developed in New York. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support Calpine's application to construct a major electric generating facility under Article 10 of the New York Public Service Law. Subsequent to the study, Jeff provided written and oral testimony in the Article 10 public hearings regarding the study findings.

### Decommissioning Study / Tradewind Energy

Illinois / 2018

Project manager on a decommissioning study for a wind being developed in Illinois. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful

life to support the county zoning application. Subsequent to the study, Jeff will be available to provided support for the county zoning hearings regarding the study findings.

### Decommissioning Study / Hawaii Electric Company

Hawaii / 2018

Project manager on a decommissioning study for a reciprocating engine plant that was under construction for Hawaii Electric Company. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life.

### Decommissioning Study / EDP Renewables

Indiana / 2018

Project manager on a decommissioning study for a wind farm being developed in Indiana. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support the county zoning application. Subsequent to the study, Jeff provided written and oral testimony in the county zoning hearings regarding the study findings.

### Decommissioning Study / EDP Renewables

Illinois / 2018

Project manager on a decommissioning study for a wind farm being developed in Illinois. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support the county zoning application. Subsequent to the study, Jeff provided oral testimony in the county zoning hearings regarding the study findings.

### Due Diligence / Centerpoint Energy

Indiana / 2017

Project manager for a due diligence evaluation of Vectren's fleet of power plants being considered as part of a potential full acquisition of Vectren by Centerpoint. The evaluation included a technical, environmental, and contractual review of the coal, simple cycle, and wind farm facilities. As part of the project, Jeff presented the results of the study to CenterPoint's board of directors to support their decision making process for the acquisition.

### Due Diligence / PKA AIP

Michigan / 2017

Project manager for a due diligence evaluation of a combined cycle power plant being considered for potential equity investment by PKA AIP. The evaluation included a technical, environmental, and contractual review of the plant.

### Decommissioning Study / Tampa Electric Company Florida / 2017

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Tampa Electric. The evaluation is being performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation includes a coal-fired plant, natural gas-fired simple and combined cycle units, and solar projects. Subsequent to the study, Jeff will be available to provide written and oral testimony in Tampa Electric's rate hearing regarding the study findings.

### Decommissioning Asset Retirement Obligation Study / NRG Energy & Clearway Energy Various US Locations / 2017 - 2020

Project manager on a decommissioning study to evaluate the asset retirement obligation costs for numerous renewable energy facilities owned by NRG Energy throughout the United States. The evaluation was performed to determine the costs for any obligations to remove and/or demolish the facilities and equipment and perform environmental remediation and site restoration activities. The study was performed to support compliance with FAS 143 requirements.

### Due Diligence / Confidential Client Northwest / 2017

Project manager for a due diligence evaluation of three natural gas fired combine cycle power plants being considered for potential acquisition. The evaluation included a technical, environmental, and contractual review of the facilities.

### Decommissioning Study / Confidential Client Illinois / 2017

Project manager for a site retirement evaluation to help determine the cost to retire a 600 MW coal-fired project in Illinois at the end of its useful life. Estimates for demolition and site restoration were included in the evaluation. Jeff previously prepared decommissioning study estimates for this plant with the updated study being performed to reflect current pricing and changes in regulations.

### Decommissioning Study / AEP Ohio, Indiana / 2017

Project manager on a decommissioning study for two coal fired power plants owned by Ohio Valley Electric Company and Indiana Kentucky Electric Company, both of which AEP is the largest shareholder. The evaluation was performed to determine the costs to demolish the units

and restore the sites at the end of their useful lives for purposes of accruing the costs over the life of the plants.

### Decommissioning Study / OGE Energy Corp. Oklahoma / 2017

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by OGE Energy in Oklahoma. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support depreciation rates. The evaluation included several coal-fired plants, natural gas fired boilers, natural gas-fired simple and combined cycle units, and a wind farm. Subsequent to the study, Jeff provided written testimony, and is currently providing support in replying to discovery requests. Jeff will be available to provide oral testimony in OGE Energy's rate hearing regarding the study findings.

### Decommissioning Study / Duke Energy North Carolina, South Carolina, Kentucky / 2017

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Duke Energy Carolinas, Duke Energy Progress, and Duke Energy Kentucky. The evaluations were performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included coal-fired plant, natural gas-fired simple and combined cycle units, gas fired boilers, hydro-electric plants, and solar projects. Subsequent to the study, Jeff provided written and oral testimony in Duke Energy rate hearings in North Carolina and Kentucky regarding the study findings.

### Useful Life Assessment / Confidential Client Southeast / 2017

Project manager on a useful life assessment for a combined cycle power plant for a confidential client. The evaluation was performed to determine the anticipated life of the facility and associated costs to achieve that life. The study supported financial modeling of the facility as part of the utility's portfolio of assets.

### Useful Life Assessment / Confidential Client Southeast / 2017

Project manager on a useful life assessment for a combined cycle power plant for a confidential client. The evaluation was performed to determine the anticipated life of the facility and associated costs to achieve that life. The study supported financial modeling of the facility as part of the utility's portfolio of assets.

## Decommissioning Study / FPL Energy Florida / 2015

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by FPL Energy in the State of Florida. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included several coal-fired plants, natural gas-fired simple and combined cycle units, solar generating facilities. Subsequent to the study, Jeff provided written and oral testimony in FPL Energy's rate case hearing regarding the study findings.

## Decommissioning Study / Xcel Energy Colorado / 2014

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Xcel Energy in the State of Colorado. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives to support regulatory filings. The evaluation included several coal-fired plants, natural gas-fired simple and combined cycle units, hydroelectric plants, and a wind farm. Subsequent to the study, Jeff is provided written and oral testimony in Xcel Energy's rate hearing regarding the study findings.

## Decommissioning Cost Evaluation / Progress Energy Florida / 2008-2009

Project manager on a site retirement cost evaluation for all the fossil fuel-fired power generating facilities owned by Progress Energy in the state of Florida. The evaluation was performed to determine the costs to demolish the units and restore the sites and included a natural gas-fired steam plants, fuel oil-fired steam plants, natural gas-fired combustion turbines, coal-fired facilities, and combined cycle generating facilities. Subsequent to the study, Jeff provided direct testimony in Progress Energy Florida's rate case regarding the study findings.

## Decommissioning Asset Retirement Obligation Study / NRG Energy California / 2016

Project manager on a decommissioning study to evaluate the asset retirement obligation costs for all the fossil fuel-fired power generating facilities owned by NRG Energy in the state of California. The evaluation was performed to determine the costs for any legally obligations to demolish facilities and equipment and perform environmental remediation and site restoration activities. The facilities included a

natural gas and fuel oil fired plants consisting of boilers, combustion turbines, and combined cycle generating facilities.

## Due Diligence / Confidential Client Northeast / 2016

Project manager for a due diligence evaluation of a portfolio of power generation assets. The assets included gas and oil fired boilers, combined cycle combustion turbines, and simple cycle combustion turbines. The client was considering acquiring an equity stake in the facilities. The evaluation included a technical, environmental, and contractual review of the facilities. The review primarily focused on evaluation of recent repairs to the facilities, remaining life of the equipment, and potential large capital cost requirements to identify key risks or fatal flaws.

## Due Diligence / Confidential Client Northeast / 2016

Project manager for a due diligence evaluation of a coal fired power generating facility that was being offered for sale. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the facilities. The review primarily focused on evaluation of the condition of the equipment and facilities, upgrades required to comply with environmental regulations, and other major capital or O&M projects to identify key risks or fatal flaws.

## Due Diligence / Confidential Client Northeast / 2016

Project manager for a due diligence evaluation of a combined cycle generating facility under development. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility. The review primarily focused on evaluation of the project costs, schedule, permitting, and other development activities to determine any development risks or fatal flaws.

## Decommissioning Study / PacifiCorp Oregon, Washington, Wyoming / 2016

Project manager on a decommissioning study for three wind farms owned by PacifiCorp. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives in support of determining depreciation rates.

## Due Diligence / Confidential Client Northeast / 2016



Project manager for a due diligence evaluation of a combined cycle generating facility under development. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility. The review primarily focused on evaluation of the project costs, schedule, permitting, EPC contract, equipment contracts, and other development activities to determine any development risks or fatal flaws.

### Due Diligence / Confidential Client Southeast / 2016

Project manager for a due diligence evaluation of a natural gas fired combined cycle power generating facility that was being offered for sale. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the facility. The review primarily focused on evaluation of the condition of the equipment, sufficiency of contractual arrangements, and environmental compliance to identify key risks or fatal flaws

### Decommissioning Study / Big Rivers Electric Cooperative Kentucky / 2016

Project manager on a decommissioning study for two coal-fired power generating facilities owned by Big Rivers Electric Cooperative. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives.

### Due Diligence / Confidential Client Northeast / 2016

Project manager for a due diligence evaluation of a natural gas fired combined cycle power generating facility that was being offered for sale. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the facility. The review primarily focused on evaluation of the condition of the equipment, sufficiency of contractual arrangements, design issues surrounding recent plant performance challenges, and environmental compliance to identify key risks or fatal flaws.

### Useful Life Assessment / Confidential Client Southeast / 2015

Project manager on a useful life assessment for a combined cycle power plant for a confidential client. The evaluation was performed to determine the anticipated life of the facility to support financing of the project associated with acquisition of the facility.

### Decommissioning Study / Nebraska Public Power District Nebraska / 2015

Project manager on a decommissioning study for five power generating facilities owned by Nebraska Public Power District. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives. The evaluation included two coal-fired plants, a natural gas-fired boiler plant, a combined cycle plant, and a wind farm.

### Decommissioning Study / Lafayette Utilities System Louisiana / 2015

Project manager on a decommissioning study for a coal fired generating facility in the state of Louisiana. The evaluation was performed to determine the costs for options to retire the units in place or demolish the units and restore the site now that the units are no longer operating. The costs are being used for planning purposes by the client, to determine the preferred decommissioning plan for the plant.

### Decommissioning Study / Colstrip Energy Montana / 2015

Project manager on a decommissioning study for a coal fired generating facility in the state of Montana. The evaluation was performed to determine the costs to demolish the unit and restore the site at the end of its useful life. The costs were used for planning purposes by the client, to determine the decommissioning funds that need to be accrued throughout the operating life of the facility.

### Due Diligence / Confidential Client Northeast / 2015

Project manager for a due diligence evaluation of a combined cycle generating facility under development. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility. The review primarily focused on evaluation of the project costs, schedule, permitting, and other development activities to determine whether the project was economically attractive and determine any development risks or fatal flaws.

### Decommissioning Study / Apex Clean Energy Various Locations / 2015

Project manager for a site retirement cost evaluation for three proposed wind energy facilities under development. The evaluation was performed to support permitting activities on the facilities.

### Decommissioning Study / Oklahoma Gas & Electric Oklahoma / 2014

Project manager on a decommissioning study for a power generating facility in the Midwest. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life. The plant was expected to retire within a year or two of the study, and the costs were used for planning purposes by the client.

### Decommissioning Study / Basin Electric Cooperative North Dakota & Wyoming / 2014

Project manager on a decommissioning study for five power generating facilities in the North Dakota and Wyoming. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful life. The costs are being used for planning purposes by the client.

### Coal Plant Layup / Hoosier Energy Indiana / 2014

Project manager on the preparation of a plan to place a coal fired generating facility in long term layup reserve status. The project included preparation of three manuals for the implementation of the layup plan, maintaining the plant during the layup period, and reactivating the plant at the end of the layup period. .

### Decommissioning Study / Apex Clean Energy Illinois / 2014

Project manager for a site retirement cost evaluation for a proposed wind energy facility under development. The evaluation was performed to support permitting activities on the facility.

### Decommissioning Study / Confidential Client Midwest / 2014

Project manager for a due diligence evaluation of a combined cycle generating facility under development. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility. The review primarily focused on evaluation of the project costs, schedule, permitting, and other development activities to determine whether the project was economically attractive and determine any development risks or fatal flaws.

### Due Diligence / Duke Energy Florida / 2014

Project manager for a due diligence evaluation of the Osprey Energy Center combined cycle generating facility being offered for sale. Duke Energy was considering acquiring the facility from the current owner. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility. Duke successfully acquired the facility and utilized the Independent Engineer's Report prepared by 1898 & Co. to support the regulatory process through acquisition of the facility.

### Due Diligence / Confidential Client Southeast / 2014

Project manager for a due diligence evaluation of a cogeneration facility being offered for sale. The client was considering acquiring the facility from the current owner. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility, including a review of potential modifications to the facility due to the loss of the steam host and associated costs.

### Due Diligence / Indiana Municipal Power Agency Indiana / 2014

Project manager for a due diligence evaluation of a coal-fired generating facility being offered for sale. The client was considering acquiring the assets from the current owner. The evaluation includes a technical, environmental, and contractual review of the coal fired generation facility. .

### Due Diligence / Kansas Municipal Power Agency Missouri / 2014

Project manager for a due diligence evaluation of a combined cycle generating facility being offered for sale. The client was considering acquiring an equity stake in the facility. The evaluation included a technical, environmental, and contractual review of the natural gas fired generation facility.

### Strategic Site Selection Study / Confidential Client Midwest / 2013

Lead on site selection study for a new natural gas fired combined cycle generating resource in the Midwest. The study included evaluating greenfield and brownfield sites to determine the most attractive sites and the limiting factors to development at each site.

### Strategic Site Selection Study / Confidential Client Northeast / 2013

Lead on site selection study for a new gas processing facility in the northeast. The study included evaluating potential greenfield locations

for a cryogenic gas processing plant to handle wet and dry gas from the Utica and Marcellus Shale areas.

### Site Evaluations / Confidential Client

Southeast / 2013

Lead on the evaluation of three potential sites for a new natural gas fired combined cycle generating facility in the Southeast. The study included reviewing three sites previously selected by the client and ranking those sites relative to one another to determine their suitability for the natural gas-fired generation options under consideration. .

### Decommissioning Study / Arizona Public Service

Arizona / 2013

Project manager on a decommissioning study for a four-steam electric generating facilities in the southwest. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives. The evaluation included two coal-fired plants, and two natural gas and fuel oil fired boilers.

### Decommissioning Study / Confidential Client

Texas / 2013

Lead on a decommissioning study for a coal fired generating facility in Texas. The study included evaluating options to place the plant in reserve shutdown status or completely retire the plant and perform full plant demolition.

### Decommissioning Study / Confidential Client

Upper Midwest / 2013

Project manager on a decommissioning study for a coal fired generating facility in the upper Midwest. The study included phasing the retirement dates of portions of the facility and performing selective demolition as appropriate with full demolition to be complete at the end of useful life of the entire facility. The study also included evaluating potential value of equipment for sale on the secondary market.

### Decommissioning Study / Confidential Client

Ohio River Valley / 2013

Project manager on a decommissioning study for two coal fired generating facilities in the Ohio River Valley. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful life. The costs are being used for planning purposes by the client.

### Decommissioning Study / EDP Renewables

Illinois / 2013

Project manager on a decommissioning study for a wind farm being developed in New York. The evaluation was performed to determine the costs to demolish the units and restore the site at the end of its useful life to support Calpine's application to construct a major electric generating facility under Article 10 of the New York Public Service Law. Subsequent to the study, Jeff will be available to provide written testimony in the Article 10 public hearings regarding the study findings.

### Strategic Site Selection Study / Confidential Client

Western Kansas / 2012

Lead on a strategic site selection study for a new natural gas fired generation resource in the state of Kansas. The study resulted in the identification of multiple viable site alternatives to support the natural gas-fired generation options under consideration.

### Due Diligence / Confidential Client

Northeast / 2012

Project manager for a due diligence evaluation of a coal-fired generating facility being offered for sale. The client was considering acquiring the assets from the current owner. The evaluation includes a technical, environmental, and contractual review of the coal fired generation facility.

### Due Diligence / Old Dominion Electric Cooperative

Pennsylvania / 2012

Jeff provided support for a due diligence evaluation of a facility under development, that included a 2-on-1 combined cycle power block, being offered for sale. The client was considering acquiring the site from the current owner. The evaluation included a technical, environmental, and contractual review of the combined cycle generation facility. The evaluation included a review of existing agreements and permits in place to facilitate development of the generation resource. The project also included a review of the project capital costs to determine whether the costs were reasonable, and to identify any gaps that may increase the overall project cost.

### Due Diligence / Old Dominion Electric Cooperative

New Jersey / 2012

Project manager for a due diligence evaluation of a facility that was under construction at the time, and was being offered for sale. The client was considering acquiring the 2-on-1 combined cycle power generating facility, from the current owner. The evaluation included a technical, environmental, and contractual review of the including a review of existing agreements and permits in place. The project also included a review of the project capital costs to determine whether the

costs were reasonable, and to identify any gaps that may increase the overall project cost.

### Due Diligence / Old Dominion Electric Cooperative Virginia / 2012

Project manager for a due diligence evaluation of a facility under development, that included a 2-on-1 combined cycle power block, being offered for sale. The client was considering acquiring the site from the current owner. The evaluation included a technical, environmental, and contractual review of the combined cycle generation facility. The evaluation included a review of existing agreements and permits in place to facilitate development of the generation resource. The project also included a review of the project capital costs to determine whether the costs were reasonable, and to identify any gaps that may increase the overall project cost.

### Due Diligence / Confidential Client Southeast / 2012

Jeff assisted with a due diligence evaluation of a facility that includes two, 2-on-1 combined cycle power blocks, being offered for sale. The client was considering acquiring the assets from the current owner. The evaluation included a technical, environmental, and contractual review of the combined cycle generation facility.

### Development Assistance / Tenaska Ohio / 2012

Project manager assisting a client with the preparation of a Certificate of Environmental Compatibility and Public Need for conversion of an existing simple cycle facility to combined cycle. The facility includes five combustion turbines, four of which will be converted to two, 2-on-1 combined cycle power blocks. The project includes full preparation of the Certificate of Environmental Compatibility and Public Need application, as well as public meeting support.

### Repower Assessment / Confidential Client North Dakota / 2011

Jeff assisted a client with an evaluation comparing the economic viability of retrofitting an existing coal-fired power plant with air quality control system equipment in comparison to replacing the plant with new natural gas fired generation. The project includes preparing capital cost estimates; operating and maintenance cost estimates, and determining the net present value of each alternative evaluate the relative economic attractiveness of each alternative.

### Decommissioning Study / Progress Energy North Carolina & South Carolina / 2011

Project manager on a decommissioning study for the entire fleet of power generating facilities owned by Progress Energy Carolinas. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives. The evaluation included several coal-fired plants, as well as several natural gas-fired and fuel oil-fired units.

### Decommissioning Study / Minnesota Power Minnesota / 2011

Project manager on a decommissioning study for several power generating facilities owned by Minnesota Power. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives. The evaluation included three coal-fired plants and a biomass fired facility. .

### Strategic Site Selection Study / Old Dominion Electric Cooperative Virginia, Maryland, Pennsylvania, Delaware / 2011

Project manager on a strategic site selection study for a 750 MW combined cycle facility. The study resulted in the identification of multiple viable site alternatives to support the natural gas-fired generation option under consideration.

### Due Diligence Evaluation / Old Dominion Electric Cooperative Pennsylvania / 2011

Project manager on a due diligence evaluation of a 2-on-1 combined cycle facility being offered for sale by Liberty Electric in Pennsylvania. The client was considering acquiring the assets from the current owner. The evaluation included a technical, environmental, and contractual review of the combined cycle generation facility.

### Due Diligence Evaluation / Tyr Energy Florida / 2011

Project manager on a due diligence evaluation of a biomass power generating facility under development by American Renewables. The client was considering an equity investment in the facility. The evaluation included a 100 MW bubbling fluidized bed boiler and steam turbine.

**Due Diligence Evaluation / Electric Cooperative**

Maryland / 2011

Project manager on a due diligence evaluation of a combined cycle facility under development in Maryland. The client was considering acquiring the site and all the development rights for installation of a 2-on-1 combined cycle facility. The evaluation included a review of existing agreements and permits in place to facilitate development of the generation resource.

**Decommissioning Study / Tampa Electric Co.**

Florida / 2011

Project manager on a decommissioning study for the power generating facilities owned by Tampa Electric Company. The evaluation was performed to determine the costs to demolish the units and restore the sites at the end of their useful lives. The evaluation included a coal-fired plant, an integrated gasification combined cycle plant, and several natural gas-fired units.

**Decommissioning Study / Confidential Client**

Illinois / 2011

Project manager for a site retirement evaluation to help determine the cost to retire a 600 MW coal-fired project in Illinois at the end of its useful life. Estimates for demolition and site restoration were included in the evaluation.

**Repower Assessment / Confidential Client**

Minnesota / 2010

Jeff assisted a client with an evaluation comparing the economic viability of retrofitting an existing coal-fired power plant with air quality control system equipment in comparison to replacing the plant with new natural gas fired generation. The project includes preparing capital cost estimates; operating and maintenance cost estimates, and determining the net present value of each alternative evaluate the relative economic attractiveness of each alternative.

**Biomass Plant Site Selection Study / Confidential Client**

Texas / 2010

Project manager for a Site Selection Study for a Biomass project to be located in Texas. The project included ranking of candidate sites to determine a preferred site for development of a 20 MW biomass power generating facility.

**Due Diligence Evaluation / Tyr Energy**

Multiple Locations / 2010

Project manager on a due diligence evaluation for several natural gas-fired facilities being offered for sale by Tenaska. The client was considering an equity investment in the facilities. The evaluation included four combined cycle facilities and one simple cycle facility.

**Power Plant Valuation Assessment / Basin Electric Power Cooperative**

North Dakota / 2010

Project manager to provide a valuation assessment of the Antelope Valley Station Unit 2, which is being considered for purchase by Basin Electric Power Cooperative. The project includes valuing the 25 year old 450 MW coal fired unit in current dollars and at specified dates in the future.

**Wind Farm Evaluation / Minnesota Power**

North Dakota / 2010

Project manager to provide an evaluation of a proposed wind farm development in central North Dakota. The project includes wind resource assessments, conceptual engineering design, capital cost estimates, and estimated busbar costs for development of wind farm project in phases on the land currently under contract.

**Decommissioning Cost Evaluations / Horizon Wind Energy**

Midwest / 2008-2010

Project manager on multiple site retirement cost evaluations for several proposed wind energy facilities under development by Horizon Wind Energy. The evaluations were performed to support permitting activities on the facilities.

**Due Diligence Evaluation / Tyr Energy**

Hawaii / 2010

Project manager on a due diligence evaluation for a biomass gasification generating facility under development in Hawaii. The client was considering the facility for investment. The evaluation included a Primenergy gasifier with a net plant output of approximately 12 MW.

**Project Development Assistance / Tradewind Energy**

Kansas / 2009-2010

Project manager to provide development assistance on a wind farm facility in Southern Kansas. The development assistance includes support on land acquisition efforts for the project, transmission line

routing and preliminary design, power collection system preliminary design, and general project development assistance.

### Project Development Assistance / Tradewind Energy Missouri / 2007-2010

Project manager to provide development assistance on two wind turbine facilities in Northern Missouri. The development assistance includes support on land acquisition efforts for the project, transmission line routing and preliminary design, power collection system preliminary design, and general project development assistance.

### Decommissioning Cost Evaluation / Northern Indiana Public Service Co. Indiana / 2008

Project manager on a site retirement cost evaluation for several generating facilities owned by NIPSCO. The evaluation was performed to determine the costs to demolish the units and restore the sites and included several coal-fired facilities and a combined cycle generating facility.

### Due Diligence Evaluation / Grays Harbor Public Utility District Washington / 2008

Project manager on a due diligence evaluation for a biomass-fired cogeneration facility being offered for sale in Washington. The facility evaluated was a paper mill that had been shutdown for several years. The facility included a wood waste fired boiler that provided steam to a steam turbine for electric power generation as well as providing plant process steam.

### Due Diligence Evaluation / Tyr Energy New Mexico / 2008

Project manager on a due diligence evaluation for a natural gas-fired power generating facility being offered for sale in New Mexico. The evaluation included two Mitsubishi 501F combustion turbines operating in combined cycle mode.

### Decommissioning Cost Evaluation / Horizon Wind Energy Illinois / 2008

Project manager on a site retirement cost evaluation for a wind farm being proposed by Horizon Wind Energy in Illinois. The evaluation was performed to determine the costs to demolish the units and restore the sites to meet the county zoning requirements.

### Due Diligence Evaluation / Tyr Energy Western U.S. / 2008

Project manager on a due diligence evaluation for several natural gas-fired power generating facilities being offered for sale throughout the western United States. The evaluation included several GE LM6000 combustion turbines operating in simple cycle mode, several GE LM6000 combustion turbines operating in combined cycle mode, one GE 7EA combustion turbine operating in combined cycle mode, and one GE 7FA combustion turbine operating in simple cycle mode.

### Due Diligence Evaluation / Tyr Energy Virginia / 2007

Project manager on a due diligence evaluation for a generating facility being offered for sale in Virginia. The evaluation included 7 GE LM6000 fuel oil fired combustion turbines operating in simple cycle mode.

### Due Diligence Evaluation / Tyr Energy Colorado / 2007

Project manager on a due diligence evaluation for 5 GE LM6000 combustion turbines operating in combined cycle cogeneration mode with 2 steam turbines. The facility includes a greenhouse that serves as the plant's thermal host for cogeneration operations.

### Project Development Assistance / Mesa Wind Power Texas / 2007

Jeff provided development assistance on a 4,000 MW wind turbine facility located in the panhandle of Texas. The development assistance includes pro forma economic modeling of the project.

### Due Diligence Evaluation / Kelson Energy Ohio / 2007

Project manager on a due diligence evaluation for a generating facility being offered for sale in Ohio. The evaluation included a partially constructed 2x1 Siemens Westinghouse 7FA combined cycle generating facility.

### Due Diligence Evaluation / Grand River Dam Authority Oklahoma / 2007

Project manager on a due diligence evaluation for a generating facility being offered for sale in Oklahoma. The evaluation included a 4x2 GE 7FA combined cycle generating facility.

## Due Diligence Evaluation / Brazos Electric Power Cooperative

Texas / 2007

Project manager on a due diligence evaluation for the purchase of an equity share of a generating facility being constructed in Texas. The evaluation included an 890 MW supercritical pulverized coal fired generating facility.

## Due Diligence Evaluation / Tyr Energy

Florida / 2007

Project manager on a due diligence evaluation for a generating facility being offered for sale in Florida. The evaluation included 3 GE 7FA combustion turbines operating in simple cycle mode. .

## Cost Estimate Preparation / Direct Energy

Texas / 2007

Project manager for the preparation of planning level cost estimates for a new combined cycle facility to be constructed in Texas.

## Due Diligence Evaluation / Tyr Energy

Various U.S Locations / 2007

Project manager on a due diligence evaluation for several generating facilities being offered for sale throughout the U.S. The evaluation included a coal, natural gas, and wind power facilities.

## Owner's Engineer Services / Grays Harbor PUD

Washington / 2007

Project manager on an owner's engineer project to evaluate the plans for installation of a refurbished steam turbine at a paper mill. The evaluation included the review of the design for the installation of a 7 MW steam turbine.

## Decommissioning Cost Evaluation / Tyr Energy

Various U.S Locations / 2007

Project manager on a site retirement cost evaluation for several generating facilities owned by Tyr Energy. The evaluation was performed to satisfy FASB 143 accounting standards and included a simple cycle and combined cycle generating facilities.

## Due Diligence Evaluation / Tyr Energy

Virginia / 2006-2007

Project manager on a due diligence evaluation for a generating facility being offered for sale in Virginia. The evaluation included a 240 MW subcritical pulverized coal fired facility.

## Due Diligence Evaluation / Brazos Electric Power Cooperative

Texas / 2006

Project manager on a due diligence evaluation for a generating facility being offered for sale in Texas. The evaluation included a 1x1 GE 7FA combined cycle generating facility and 2 GE 7FA combustion turbines operating in simple cycle mode.

## Due Diligence Evaluation / Kelson Energy

Ohio / 2007

Project manager on a due diligence evaluation for a generating facility being offered for sale in Ohio. The evaluation included a partially constructed 2x1 Siemens Westinghouse 7FA combined cycle generating facility.

## Generation Alternatives Study / Ottertail Power Company

North Dakota / 2006

Project manager on a Generation Alternatives Study for the addition of a new 600 MW coal fired unit at an existing coal fired facility. The study includes a pro forma analysis of the technologies considered.

## Technology Assessment / Minnesota Power

South Dakota / 2006

Assisted with a technology assessment for the addition of a new 500 MW coal fired unit at an existing coal fired facility. The study includes a pro forma analysis of the technologies considered.

## Technology Assessment & Feasibility Study / Ottertail Power Co.

Minnesota / 2006

Project manager on a feasibility study and technology assessment for the addition of a new 500 MW coal fired unit at an existing coal fired facility. The study includes conceptual site layouts, cost estimates, performance estimates, and water balances.

## Project Development Assistance / Tradewind Energy

Kansas / 2005-2006

Project manager to provide development assistance on a 250MW wind turbine facility in Central Kansas. The development assistance includes

conceptual design and technical support for the development phase of the project.

### Siting Study & Technology Assessment / Arizona Public Service

Arizona/New Mexico / 2005-2006

Assisted with a siting study and technology assessment for a 1,800 MW coal fired facility in Arizona and Northwestern New Mexico. Development resulted in the identification of multiple viable site alternatives to support coal-fired generation options.

### Due Diligence Evaluation / Tyr Energy

California / 2005-2006

Project manager on a due diligence evaluation for four generating facilities being offered for sale in California. The evaluation included simple cycle facilities consisting of Pratt & Whitney FT8 Twinpacs.

**Professional Services: 2005-2006**

### Waste-to-Energy Feasibility Study / CPS Energy

Texas / 2005

Assisted with a feasibility study for a new waste-to-energy facility in the State of Texas. The study included a pro forma analysis of the facility considered.

### Due Diligence Evaluation / Tyr Energy

Oklahoma / 2006

Project manager on a due diligence evaluation for a generating facility being offered for sale in Oklahoma. The evaluation included a simple cycle facility consisting of four General Electric 7EA turbines.

### Due Diligence Evaluation / Cinergy

Indiana / 2005

Project manager on a due diligence evaluation for a generating facility being offered for sale in Indiana. The evaluation included a simple cycle facility consisting of four Siemens Westinghouse 501D5A turbines.

### Due Diligence Evaluation / kRoad Power

Various Locations / 2003-2004

Project manager on due diligence evaluations for several generating facilities being offered for sale throughout the United States. The evaluations included four combined cycle plants utilizing Siemens Westinghouse 501G turbines.

### Due Diligence Evaluation / kRoad Power

Various Locations / 2003

Project manager on due diligence evaluations for several generating facilities being offered for sale by Duke Energy. The evaluations included two combined cycle plants and one simple cycle plant utilizing General Electric 7FA turbines and General Electric 7EA turbines respectively.

### Decommissioning Cost Evaluation / Old Dominion Electric Cooperative

Maryland/Virginia / 2002-2004

Project manager on several site retirement evaluations to help determine the cost to retire the facilities at the end of their useful life. The evaluations included simple cycle plants utilizing General Electric 7FA turbines and Caterpillar Diesel Gensets. Estimates for demolition and site restoration were included.

### Decommissioning Cost Evaluation / Western Farmers Electric Cooperative

Oklahoma / 2004

Project manager on a site retirement evaluation to determine the approximate cost to retire the facilities, prepare demolition contract documents, and evaluate bids. The evaluation included a dual fuel genset site.

### Decommissioning Cost Evaluation / Panda Energy

North Carolina / 2003

Project manager on a site retirement evaluation to help determine the cost to retire the Panda-Rosemary Project at the end of its useful life. The evaluation included a combined cycle cogeneration facility in Roanoke Rapids, North Carolina. Estimates for demolition and site restoration were included in the evaluation.

### Independent Engineer's Report / Panda Energy

North Carolina / 2003-2004

Produced an Independent Engineer's Report for the Panda-Rosemary Project. The report included a due diligence evaluation of plant performance and financial assessment of a combined cycle cogeneration facility in Roanoke Rapids, North Carolina.

### Decommissioning Cost Evaluation / Sempra Energy

Arizona / 2003

Provided a site retirement evaluation to help determine the cost to retire the Mesquite Energy Generating Facility at the end of its useful life. The evaluation included a combined cycle plant near Phoenix,



Arizona. Estimates for demolition and site restoration were included in the evaluation.

**Feasibility Study / Northeast Utility Service Corp  
New Hampshire / 2004**

Assisted with a feasibility study to replace an existing coal-fired unit with a new coal fired unit. The study included the installation of a single 600 MW unit in New Hampshire. A pro forma analysis of the new unit was prepared and benchmarked against a pro forma analysis for the existing unit.

**Technology Assessment & Feasibility Study /  
Ottetail Power Corp  
South Dakota / 2006**

Assisted with a technology assessment and feasibility study for a new coal-fired generation facility in South Dakota. The study included a pro forma analysis of the alternative technologies considered.

**Waste-to-Energy Feasibility Study / CPS Energy  
Texas / 2005**

Assisted with a feasibility study for a new waste-to-energy facility in the State of Texas. The study included a pro forma analysis of the facility considered.

**Technology Assessment & Feasibility Study /  
Progress Energy  
Florida / 2004**

Assisted with a technology assessment and feasibility study for new solid fuel fired generation in the State of Florida. The study included a pro forma analysis of the alternative technologies considered.

**Resources Corporation Project Development  
Assistance / Peoples Energy  
Oregon / 2001-2004**

Provided project development assistance for a 1,200 MW combined cycle power plant in Oregon. Mr. Kopp assisted in the preparation of an Energy Facility Site Certificate including preliminary engineering design, preparation and review of written exhibits, and public presentation support.

**Project Development Assistance / Peoples Energy  
Resources Corporation  
New Mexico / 2001-2004**

Provided project development assistance for a simple cycle power plant in New Mexico. Mr. Kopp provided preliminary engineering design and project development assistance. This included preparing preliminary site design drawings that were approved by the county zoning commission during the site design review process as well as public presentation support.



PART OF BURNS  MCDONNELL



# EVERGY METRO DECOMMISSIONING COST ESTIMATE STUDY

EVERGY METRO, INC.

EVERGY DECOMMISSIONING COST ESTIMATE  
185720

February 5, 2026

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## LIST OF ABBREVIATIONS

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### Abbreviation

1898 & Co.

BOP

C&D

CCRMU

Evergy

HRSR

KCI

LFG

MW

MW-AC

MW-DC

Plants

SCI

SCR

Study

### Term/Phrase/Name

1898 & Co., a part of Burns & McDonnell Engineering Company, Inc.

Balance of Plant

Construction and Demolition

Coal Combustion Residual Management Units

Evergy Metro, Inc.

Heat Recovery Steam Generators

Kansas City International Power Generation Facility

Landfill Gas

Megawatts

Megawatts Alternating Current

Megawatts Direct Current

Power Generation Assets

Site Cost Index

Selective Catalytic Reduction

Decommissioning Cost Study

# 1.0 Executive Summary

## 1.1 Introduction

Evergy Metro, Inc (“Evergy”) retained 1898 & Co., a part of Burns & McDonnell Engineering Company, Inc. (hereinafter called “1898 & Co.”), to conduct a Decommissioning Cost Study (“Study”) for power generation assets (“Plants”) located in Kansas and Missouri. The assets include natural gas-fired, coal-fired, wind generation, and solar generation facilities. The purpose of the Study was to review the facilities and to make a recommendation to Evergy regarding the total cost to decommission the facilities at the end of their useful lives.

## 1.2 Methodology

The site’s decommissioning costs were developed using information provided by Evergy and in-house data 1898 & Co. has collected from previous project experience. In this Study, two methodologies were utilized to estimate the end of life costs for the Plants.

For the renewable assets, the basis of the estimates was that all sites will be restored to a condition suitable for industrial or agricultural use. 1898 & Co. estimated quantities for equipment based on a visual inspection of the facilities, reviews of engineering drawings, an in-house database of plant equipment quantities, and professional judgement. For each Plant, quantities were estimated for each required task. Current market pricing for labor rates and equipment was then developed for each task. The unit pricing was developed for each site based on labor rates, equipment costs, and disposal costs specific to the area in which the work is to be performed. These rates were applied to the quantities for the renewable Plants to determine the total cost of decommissioning and dismantling.

For the thermal (coal or gas-fired) assets, the above full decommissioning and dismantlement methodology was initially utilized. However, Evergy requested an additional methodology whereby the thermal Plants would be retired and decommissioned but not be fully dismantled. For Evergy Metro’s thermal Plants, 1898 & Co. has therefore prepared two sets of end-of-life cost estimates. One set of estimates assumes the full concurrent decommissioning and dismantlement of the Plants while the second set of estimates is representative of direct costs associated with decommissioning and retiring in place the plant equipment and facilities.

For the retirement in place estimates, the direct costs include environmental remediation costs for asbestos removal and other hazardous material handling and disposal, as well as costs for closing any ponds and cleaning up potentially contaminated soil. Full dismantlement and removal of above or below grade structures, foundations, and equipment was not included. Rather, costs are inclusive of decommissioning activities to achieve “cold and dark” conditions at the units. Additional potential liabilities such as carrying costs and the ultimate removal of assets and structures are excluded for all thermal assets. Therefore, this study excludes a portion of the end-of-life costs associated with these assets, which would be incurred by Evergy Metro. 1898 & Co.’s work related

to retirement in place estimates remains ongoing and may be updated in a future revision of this Report.

### 1.3 Results

1898 & Co. has prepared cost estimates in 2025 dollars for the decommissioning of the Plants. These cost estimates are summarized in the following table.

As noted in the preceding Section, two methodologies were utilized to estimate potential end-of-life costs for Evergy Metro’s thermal assets. The following Tables detail the results from each of the methodologies. To support Evergy Metro’s depreciation study, the retirement in place costs (Shown in Section 1.3.2) will be utilized.

#### 1.3.1 Full Decommissioning and Dismantlement Costs

When Evergy determines that the Plants should be retired, the above grade equipment and steel structures are assumed to have sufficient scrap value to a scrap contractor to offset a portion of the decommissioning costs for the renewable sites which would be fully dismantled. Evergy will incur costs in the demolition and restoration of the sites less the scrap value of equipment and bulk recycled metals.

Table 1-1: Full Dismantlement Cost Summary (2025\$)

Plant	Gross Decom Cost	Salvage Credits	Net Project Cost
Hawthorn	\$ 62,629,000	\$ (14,052,000)	\$ 48,577,000
Hawthorn Solar	\$ 1,364,300	\$ (417,700)	\$ 946,600
Iatan	\$ 111,768,000	\$ (26,548,000)	\$ 85,220,000
La Cygne	\$ 123,432,000	\$ (18,164,000)	\$ 105,268,000
Northeast	\$ 9,152,000	\$ (3,435,000)	\$ 5,717,000
Osawatomie	\$ 1,243,000	\$ (806,000)	\$ 437,000
Spearville Wind	\$ 13,793,750	\$ (7,991,000)	\$ 5,802,750
West Gardner	\$ 3,031,000	\$ (2,263,000)	\$ 768,000
<b>Total</b>	<b>\$ 326,413,050</b>	<b>\$ (73,676,700)</b>	<b>\$ 252,736,350</b>

#### 1.3.2 Decommissioning and Retirement in Place Costs

When Evergy determines that the Plants should be retired the thermal assets will be decommissioned and retired in place, while renewable assets will be fully decommissioned and dismantled.



Table 1-2: Decommissioning Cost Summary (2025\$)

Plant	Gross Decom Cost	Salvage Credits	Net Project Cost
Hawthorn	\$ 30,099,000	--	\$ 30,099,000
Hawthorn Solar	\$ 1,364,300	\$ (417,700)	\$ 946,600
Iatan	\$ 61,990,000	--	\$ 61,990,000
La Cygne	\$ 89,886,000	--	\$ 89,886,00
Northeast	\$ 1,936,000	--	\$ 1,936,000
Osawatomie	\$ 395,000	--	\$ 395,000
Spearville Wind	\$ 13,793,750	\$ (7,991,000)	\$ 5,802,750
West Gardner	\$ 1,542,000	--	\$ 1,542,000
<b>Total</b>	<b>\$ 201,006,050</b>	<b>\$ (8,408,700)</b>	<b>\$ 192,597,350</b>

#### 1.4 Site Visit

To support the formulation of retirement in place estimates, representatives from 1898 & Co. and Evergy conducted site visits to Iatan, Hawthorn, and Northeast. The remaining sites were visited during the prior study in June of 2021.

## 2.0 Plant Descriptions

The following sections provide site descriptions for each of the power plants included in this Study. Unit capacities provided in the following sections are based on nameplate capacities of the units and are not based on capacity testing.

### 2.1 Hawthorn

Hawthorn is located in Kansas City, Missouri. The Plant consists of a 569 MW Coal-fired boiler (Unit 5), a one-on-one combined cycle with a combined rating of 313 MW (Unit 6 and 9), and two 82.2MW gas turbines (Unit 7 and 8). The combined cycle is comprised of a 170 MW gas turbine (Unit 6) and 142.8 MW steam turbine (Unit 9). Unit 5 runs primarily on subbituminous coal but has the capability to run on natural gas as a secondary fuel source. The site also includes Units 1 through 4, which were taken out of service in the 1980s. Unit 4 steam turbine was repowered for Unit 9. The remaining units run on natural gas. A summary of the units is shown in the following table.

Table 2-1: Hawthorn Summary

Unit	Generation Type	Fuel Type	Nameplate Capacity	In-Service Date
5	Steam Turbine	Subbituminous Coal	569 MW	1969
6	Combined Cycle Combustion Turbine	Natural Gas	170 MW	2000
7	Gas Turbine	Natural Gas	82.2 MW	2000
8	Gas Turbine	Natural Gas	82.2 MW	2000
9	Combined Cycle Combustion Steam	Natural Gas	142.8 MW	2000

### 2.2 Hawthorne Solar

Hawthorne Solar is a solar farm located on the same land as the Hawthorn Power Plant near Kansas City, Missouri. The layout includes approximately 22,032 ZNShine ZXM7-SHLDD144 photovoltaic panels. The plant has a total capacity of 10 Megawatts Alternating Current (“MW-AC”) and 12MW-DC. A summary of the unit is shown in the following table.

Table 2-2: Hawthorn Solar Summary

Unit	Generation Type	Fuel Type	Nameplate Capacity	In-Service Date
1	Photovoltaic	Solar	10 MW-AC	2023

### 2.3 Iatan

Iatan is located approximately thirty miles south of St. Joseph, Missouri, and consists of two steam turbine units. Both units run primarily on subbituminous coal but can run on distillate fuel oil as a secondary fuel source. Unit 1 is rated at 726 MW and Unit 2 is rated at 999 MW. Unit 1’s environmental controls were added when Unit 2 was constructed, these controls include Selective Catalytic Reduction (“SCR”), fabric filters and scrubbers. A cooling tower provides cooling water for Unit 2. Both units have stainless steel condensers and feedwater heaters. A summary of the units is shown in the following table.

Table 2-3: Iatan Summary

Unit	Generation Type	Fuel Type	Nameplate Capacity	In-Service Date
1	Steam Turbine	Subbituminous Coal	726 MW	1980
2	Steam Turbine	Subbituminous Coal	999 MW	2010

## 2.4 La Cygne

LaCygne is located in LaCygne, Kansas and consists of two coal-fired boilers. Units 1 and 2 have approximate ratings of 873 MW and 726 MW, respectively. Both Units are equipped with SCR, scrubbers, and baghouses. A summary of the units is shown in the following table.

Table 2-4: LaCygne Summary

Unit	Generation Type	Fuel Type	Nameplate Capacity	In-Service Date
1	Steam Turbine	Subbituminous Coal	873 MW	1973
2	Steam Turbine	Subbituminous Coal	725.9 MW	1977

## 2.5 Northeast

Northeast is located in Kansas City, Missouri and consists of eight gas turbine units. Units 11 and 12 each have a rating of 50 MW, and Units 13 through 18 each have a rating of 64.7 MW, with a combined rating of approximately 488 MW. All eight units run on distillate fuel oil. A summary of the units is shown in the following table.

Table 2-5: Northeast Summary

Unit	Generation Type	Fuel Type	Nameplate Capacity	In-Service Date
11	Gas Turbine	Distillate Fuel Oil	50 MW	1972
12	Gas Turbine	Distillate Fuel Oil	50 MW	1972
13	Gas Turbine	Distillate Fuel Oil	64.7 MW	1976
14	Gas Turbine	Distillate Fuel Oil	64.7 MW	1976
15	Gas Turbine	Distillate Fuel Oil	64.7 MW	1975
16	Gas Turbine	Distillate Fuel Oil	64.7 MW	1975
17	Gas Turbine	Distillate Fuel Oil	64.7 MW	1977
18	Gas Turbine	Distillate Fuel Oil	64.7 MW	1977

## 2.6 Osawatomie

Osawatomie is located approximately five miles northeast of Osawatomie, Kansas and consists of one 102 MW gas turbine unit. The unit runs primarily on distillate fuel oil but can run on natural gas as a secondary fuel source. A summary of the unit is shown in the following table.

Table 2-6: Osawatomie Summary

Unit	Generation Type	Fuel Type	Nameplate Capacity	In-Service Date
1	Gas Turbine	Natural Gas	102 MW	2003

## 2.7 Spearville Wind

Spearville Wind is located approximately eighteen miles northeast of Dodge City, Kansas. The wind farm includes 99 General Electric 1.5 SLE wind turbines, with a combined rating of 148.5 MW. A summary of the phases is shown in the following table.

Table 2-7: Spearville Wind Summary

Unit	Generation Type	Capacity	Number of Turbines	In-Service Date
1	Wind Turbine	100.5 MW	67	2006
2	Wind Turbine	48 MW	32	2010

## 2.8 West Gardner

West Gardner is located to the southwest of Gardner, Kansas. The Plant consists of four gas turbine units each with a rating of 102 MW. A summary of the units is shown in the following table

Table 2-8: West Gardner Summary

Unit	Generation Type	Fuel Type	Nameplate Capacity	In-Service Date
1	Gas Turbine	Natural Gas	102 MW	2003
2	Gas Turbine	Natural Gas	102 MW	2003
3	Gas Turbine	Natural Gas	102 MW	2003
4	Gas Turbine	Natural Gas	102 MW	2003

## 3.0 Decommissioning Costs

### 3.1 Full Decommissioning and Dismantlement

1898 & Co. has prepared decommissioning and dismantlement cost estimates for the Plants. When Evergy determines that each site should be retired, the above grade equipment and steel structures are assumed to have scrap value to a scrap contractor which will offset a portion of the site decommissioning costs. However, Evergy will incur costs of dismantling the Plants and restoration of the sites to the extent that those costs exceed the scrap value of equipment and bulk steel.

The decommissioning costs for each site include the cost to return each site to an industrial condition, suitable for reuse for development of an industrial facility. Included are the costs to dismantle all the assets at the sites, including power generating equipment and BOP facilities, as well as the costs to perform environmental site restoration activities.

For purposes of this study, 1898 & Co. assumed that each site will be dismantled as a single project, allowing the most cost-effective demolition methods to be utilized. A summary of several of the means and methods that could be employed is summarized in the following paragraphs; however, means and methods will not be dictated to the contractor by 1898 & Co. It will be the contractor's responsibility to determine means and methods that result in safely dismantling the Plants at the lowest possible cost.

Asbestos remediation, as required, would take place prior to commencement of any other demolition activities. Abatement would need to be performed in compliance with all state and federal regulations, including, but not limited to, requirements for sealing off work areas and maintaining negative pressure throughout the removal process. Final clearances and approvals would need to be achieved prior to performing further demolition activities.

High grade assets would then be removed from the site to the extent possible. This would include items such as transformers, transformer coils, circuit breakers, electrical wire, condenser plates and tubes, and heater tubes. High grade assets include precious alloys such as copper, aluminum-brass tubes, stainless steel tubes, and other high value metals occurring in plant systems. High grade asset removal would occur up-front in the schedule, to reduce the potential for theft, to increase cash flow, and for separation of recyclable materials to increase scrap recovery. Methods of removal vary with the location and nature of the asset. Small transformers, small equipment, and wire would likely be removed and shipped as-is for processing at a scrap yard. Large transformers, CT, ST generators, and condensers would likely require some on-site disassembly prior to being shipped to a scrap yard.

Construction and Demolition ("C&D") waste includes items such as non-asbestos insulation, roofing, wood, drywall, plastics, and other non-metallic materials. C&D waste would typically be segregated from scrap and concrete to avoid cross-contamination of waste streams or recycle streams. C&D demolition crews could remove these materials with equipment such as excavators equipped with material handling attachments, skid steers, etc. This material would be consolidated and loaded into bulk containers for disposal.

In general, boilers and HRSGs could be felled and cut into manageable sized pieces on the ground. First the structures around the boilers would need to be removed using excavators equipped with shears and grapples. Stairs, grating, elevators, and other high structures would be removed using an "ultra-high reach" excavator, equipped with shears. Following removal of these structures, the boilers or HRSGs would be felled, using explosive blasts. The boilers would then be dismantled using equipment such as excavators equipped with shears and grapples, and the scrap metal loaded onto trailers for recycling.

After the surrounding structures and ductwork have been removed, the stacks would be imploded, using controlled blasts. Following implosion, the stack liners and concrete would be reduced in size to allow for handling and removal.

BOP structures and foundations would likely be demolished using excavators equipped with hydraulic shears, hydraulic grapples, and impact breakers, along with workers utilizing open flame cutting torches. Steel components would be separated, reduced in size, and loaded onto trailers for recycling. Concrete would be broken into manageable sized pieces and stockpiled for crushing on site. Concrete pieces would ultimately be loaded in a hopper and fed through a crusher to be sized for on-site disposal.

### 3.2 Retirement in Place

1898 & Co. has prepared decommissioning cost estimates for the thermal Plants assuming retirement in place. When Evergy determines that each site should be retired, all equipment will be prepared for cold and dark conditions in which it can safely remain in perpetuity. This would include safely draining and disposing of various oils, refrigerants, and chemicals, draining of water tanks, safe electrical disconnection from the Plant substation. If applicable, the selective catalytic reduction catalyst and baghouse bags would be removed and safely disposed of. For coal facilities, work would be included to close ash pond and coal run-off ponds, empty coal and ash silos, remove any remaining coal from the pile and backfill, landfill closure and options to maintain leachate pond. Additional work would be required to close any wetlands or lagoons, wash down the coal system and to ensure the site is graded to support natural drainage for storm water flow. All combustibles associated with the coal conveyers and belting would be removed and disposed of, and the boilers would be drained and cleaned to remove all bottom ash. Fly ash would also be removed from the precipitators and baghouses as applicable. Any remaining asbestos would be abated and safely disposed of. And finally, it is assumed that the site would be prepared for long-term retirement in place: stack lights would be maintained per FAA guidance, city water or rural water fire hydrants would be installed (along with all necessary piping) to provide support once plant systems are fully shut down, and all circulating water lines and intake structures would be capped.

At the completion of the above work, the Plants would be fully isolated and decommissioned with all environmental remediation completed. Above and below-grade structures would remain in place and additional long-term work would be necessary to restore the site for industrial redevelopment, should that become a consideration in the future. At the time of retirement, the decommissioning contractor and/or Evergy may determine that the value of scrap may provide sufficient value to support the removal of some above or below grade equipment; however, these potential costs and values are excluded from this estimate.

For purposes of this study, 1898 & Co. assumed that each site will be decommissioned as a single project, allowing the most cost-effective methods to be utilized.

### 3.3 General Assumptions

#### 3.3.1 Full Decommissioning and Dismantlement General Assumptions

The following assumptions are made as the basis of all dismantlement cost estimates.

1. Pricing for all estimates is in current 2025 dollars.
2. All estimates are based on the local site cost index for the Plants.
3. All work will take place in the most cost-efficient method.
4. Labor costs are based on Union labor rates for Sites located in Missouri and Non-Union labor rates for Sites located in Kansas and Mississippi for a 40-hour workweek. For purposes of this Study, it is

assumed that all generating units at each power station will be dismantled as part of a single demolition project.

5. Units will be decommissioned to zero generating output. Existing utilities will remain in place for use by the contractor for the duration of the demolition activities.
6. Evergy will remove or consume all burnable coal, fuel oil and chemicals to the reasonable extent possible prior to commencement of demolition activities. Costs for these activities are not included in the estimate. Costs are included in the estimates for cleaning and flushing fuel oil tanks and lines. Costs have also been included to remove three feet of soil directly below each of the fuel oil tanks and five feet of soil beneath the fuel oil lines to account for the potential for this soil to be contaminated during normal operations.
7. No environmental costs have been included to address cleanup of contaminated soils, hazardous materials, or other conditions present on-site having a negative environmental impact, other than those specifically listed here. No allowances are included for unforeseen environmental remediation activities.
8. Abatement of asbestos will precede any other work. After final air quality clearances have been reached, demolition can proceed.
9. All demolition and abatement activities, including removal of asbestos, will be done in accordance with all applicable Federal, State and Local laws, rules and regulations.
10. Asbestos quantities were provided by Evergy unless noted otherwise in the site-specific assumptions below.
11. Hazardous material abatement is included for all sites as necessary, including asbestos, mercury, and polychlorinated biphenyls. Lead paint coated materials will be handled by certified personnel compliant with OSHA Standards as necessary, but will not be removed prior to demolition.
12. Transmission switchyards and substations within the boundaries of the plant are not part of the demolition scope. Switchyards that are associated with the facilities only and are not part of the transmission system are included for demolition. For purposes of this study, the division between generation assets and transmission assets is at the high side of the generator step-up transformers.
13. The costs for relocation of transmission lines, or other transmission assets, are specifically excluded from the decommissioning cost estimates.
14. Step-up transformers, auxiliary transformers, and spare transformers are included for demolition and scrap in all estimates.
15. All above-grade structures will be demolished. All below-grade structures, including foundations, will be removed to two (2) feet below existing grade, unless otherwise noted in the site-specific assumptions.
16. Foundations greater than two (2) feet below grade will be abandoned in place.
17. All intake structures will be removed to a depth of three (3) feet below the natural contour of the riverbed and bank.
18. Existing basements will be used to bury non-hazardous debris. Concrete in trenches and basements will be perforated to create drainage. Non-hazardous debris, such as concrete and brick, will be crushed and used as clean fill on-site once the capacity of all existing basements has been exceeded. All inert debris will be disposed of on-site. All other material that is not sold as scrap will be disposed of at an off-site landfill.
19. Except for the circulating water lines, underground piping will be capped and abandoned in place. Circulating water piping will be excavated to the top of the pipe, the top of the pipe will be broken, and backfilled with on-site material.
20. Site areas will be graded to achieve suitable site drainage to natural drainage patterns and seeded, but grading will be minimized to the extent possible.
21. Major equipment, structural steel, turbines, generators, exhaust stacks, transformers, electrical equipment, cabling, wiring, pump skids, above ground piping, and equipment enclosures for the above equipment will be sold for scrap and removed from the Plant site by the demolition contractor. All other demolished materials are considered debris.
22. The gas piping connecting the combustion turbines and the accessories are assumed to be stainless steel material.

23. For purposes of this Study, it is assumed that none of the equipment will have a salvage value in excess of the scrap value of the materials in the equipment at the time of decommissioning. The decommissioning cost estimate is based on the end of useful life of the facility. All equipment, steel, copper, and other metals will be sold as scrap. Credits for salvage value are based on scrap value alone. Resale of equipment and materials is not included.
24. Valuation and sale of land and all replacement generation costs are excluded from this scope.
25. The scope of the costs included in the Study is limited to the decommissioning activities that will occur at the end of useful life of the facilities. Additional on-going costs may be required, including, but not limited to groundwater monitoring associated with ash pond closure and/or other environmental monitoring activities. These costs are excluded from the cost estimates provided in this study.
26. Coal combustion residual management units (“CCRMU”) that will be identified under the upcoming United States Environmental Protection Agency Coal Combustion Residuals Legacy Rule were not addressed as part of this update.
27. A 20 percent contingency is included on the direct costs in the estimates prepared as part of this Study to cover unknowns. The Owner’s indirect costs are included as 5 percent of the direct costs.
28. Market conditions may result in cost variations at the time of contract execution.
29. The following scrap values were used in the decommissioning cost estimates. The scrap values are based upon the 12-month average of American Metal Market prices for May 2024 to April 2025 (i.e., one calendar year). These values include the cost to haul the scrap via truck and/or rail to the scrap market indicated below.

Table 3-1: 2025 Scrap Pricing

Plant	Scrap Market Location	Steel Scrap Value (\$/net ton)	Copper Scrap Value (\$/pound)	Aluminum Scrap Value (\$/pound)
Hawthorn	Chicago	\$(234.91)	\$(3.26)	\$(0.48)
Hawthorn Solar	Chicago	\$(234.91)	\$(3.26)	\$(0.48)
Iatan	Chicago	\$(226.87)	\$(3.26)	\$(0.48)
LaCygne	Chicago	\$(226.66)	\$(3.26)	\$(0.48)
Northeast	Chicago	\$(235.83)	\$(3.26)	\$(0.48)
Osawatomie	Chicago	\$(235.48)	\$(3.26)	\$(0.48)
Spearville Wind	Houston	\$(218.65)	\$(3.26)	\$(0.47)
West Gardner	Chicago	\$(228.66)	\$(3.26)	\$(0.48)

Table 3-2: Additional Scrap Pricing

Plant	Scrap Market Location	Stainless Steel Scrap Value (\$/net ton)
Hawthorn	Chicago	\$(1,108.41)
Iatan	Chicago	\$(1,100.38)
LaCygne	Chicago	\$(1,100.17)
West Gardner	Chicago	\$(1,102.16)

### 3.3.2 Retirement in Place General Assumptions

The following assumptions are made as the basis of all retirement in place cost estimates.



1. Pricing for all estimates is in current 2025 dollars.
2. All estimates are based on the local site cost index for the Plants.
3. All work will take place in the most cost-efficient method.
4. Labor costs are based on Union labor rates for Sites located in Missouri and Non-Union labor rates for Sites located in Kansas for a 40-hour workweek. For purposes of this Study, it is assumed that all generating units at each power station will be dismantled as part of a single demolition project.
5. Units will be decommissioned to zero generating output. Existing utilities will remain in place for use by the contractor for the duration of the demolition activities for the renewable assets.
6. Evergy will remove or consume all burnable coal, fuel oil and chemicals to the reasonable extent possible prior to commencement of demolition activities. Costs for these activities are not included in the estimate. Costs are included in the estimates for cleaning and flushing fuel oil tanks and lines. Costs have also been included to remove three feet of soil directly below each of the fuel oil tanks and five feet of soil beneath the fuel oil lines to account for the potential for this soil to be contaminated during normal operations.
7. No environmental costs have been included to address cleanup of contaminated soils, hazardous materials, or other conditions present on-site having a negative environmental impact, other than those specifically listed here. No allowances are included for unforeseen environmental remediation activities.
8. Abatement of asbestos will precede any other work.
9. All decommissioning and abatement activities, including removal of asbestos, will be done in accordance with all applicable Federal, State and Local laws, rules and regulations.
10. Asbestos quantities were provided by Evergy unless noted otherwise in the site-specific assumptions below.
11. Hazardous material abatement is included for all sites as necessary, including asbestos, mercury, and polychlorinated biphenyls. Lead paint coated materials will be handled by certified personnel compliant with OSHA Standards as necessary, but will not be removed prior to decommissioning.
12. Transmission switchyards and substations within the boundaries of the plant are not part of the demolition scope. Switchyards that are associated with the facilities only and are not part of the transmission system are included for demolition on the renewable sites. For purposes of this study, the division between generation assets and transmission assets is at the high side of the generator step-up transformers.
13. The costs for relocation of transmission lines, or other transmission assets, are specifically excluded from the decommissioning cost estimates.
14. Step-up transformers, auxiliary transformers, and spare transformers are included for demolition and scrap in all renewable estimates. For the thermal Plants, costs are included in the buildup to support the draining and disposal of transformer oils as well as perform electrical isolation of each unit.
15. For thermal Plants, all above and below grade equipment, notwithstanding required environmental remediation activities, is assumed to remain in place.
16. All intake structures will be capped and flowable filled at the inlet but will remain in place.
17. Inclusive of the circulating water lines, underground piping will be capped and abandoned in place.
18. Site areas will be graded to achieve suitable site drainage to natural drainage patterns and seeded, but grading will be minimized to the extent possible.
19. Major equipment, structural steel, turbines, generators, exhaust stacks, transformers, electrical equipment, cabling, wiring, pump skids, above ground piping, and equipment enclosures for the above equipment will remain in place.
20. For purposes of this Study, it is assumed that none of the equipment will have a salvage value in excess of the scrap value of the materials in the equipment at the time of decommissioning. Resale of equipment and materials is not included.
21. Valuation and sale of land and all replacement generation costs are excluded from this scope.
22. The scope of the costs included in the Study is limited to the decommissioning activities that will occur at the end of useful life of the facilities. Additional on-going costs may be required, including, but not limited to groundwater monitoring associated with ash pond closure and/or other

environmental monitoring activities. These costs are excluded from the cost estimates provided in this study.

23. Coal combustion residual management units (“CCRMU”) that will be identified under the upcoming United States Environmental Protection Agency Coal Combustion Residuals Legacy Rule were not addressed as part of this update.
24. A 20 percent contingency is included on the direct costs in the estimates prepared as part of this Study to cover unknowns. The Owner’s indirect costs are included as 5 percent of the direct costs.
25. Market conditions may result in cost variations at the time of contract execution.

### 3.4 Site Specific Assumptions

The following assumptions were made specific to each site, in addition to the generic assumptions listed above.

#### 3.4.1 Hawthorn

1. Cost included for removal of asbestos are based on information provided by Evergy.
2. Costs are included for removal of the coal pile runoff pond. It is estimated there is approximately 2 feet of residual material that will need removed.
3. Unit 5 condenser tubes are made of titanium material and Unit 9 condenser tubes are made of stainless steel. Units 1 through 3 condensers have not yet been removed and are assumed to be comprised of brass tubing.
4. The air quality control equipment for Units 1 through 4 was removed prior to the time of this Study.
5. Based on Kansas City, Missouri an SCI of 99.7 percent was applied.

#### 3.4.2 Hawthorn Solar

1. All fencing and roads will be removed, and the Plant Site will be cleared of debris at the end of the decommissioning. Grading and seeding of the Plant Site are included in the decommissioning cost estimate.
2. Solar panel racking, transformers, electrical equipment, cabling, and wiring will be sold for scrap and removed from the Plant site by the demolition contractor. All other demolished materials are considered debris.
3. Based on Kansas City, Missouri an SCI of 99.7 percent was applied.

#### 3.4.3 Iatan

1. Approximately 10 percent of asbestos is assumed to remain in Unit 1. No asbestos is assumed to remain in Unit 2.
2. The condenser tubes are stainless steel.
3. Costs are included for closure of the coal runoff pond and landfill, including mobilization costs as 10% of the total construction costs, and engineering and construction oversight costs as 15% of the total construction costs.
4. Based on St Joseph, Missouri an SCI of 90.6 percent was applied.

#### 3.4.4 LaCygne

1. Approximately 25 percent of asbestos is assumed to remain.
2. The condensers for Units 1 and 2 have stainless steel piping.
3. Costs are included for removal of the gypsum runoff pond and both cells of the sewage lagoon.
4. Costs are included for removal of the landfills
5. Based on Fort Scott, Kansas an SCI of 90.5 percent was applied.

#### 3.4.5 Northeast

1. There is assumed to be no asbestos on site.
2. Based on Kansas City, Missouri an SCI of 99.7 percent was applied.

### 3.4.6 Osawatomie

1. There is assumed to be no asbestos on site.
2. Based on Harrisonville, Missouri an SCI of 92.4 percent was applied.

### 3.4.7 Spearville Wind

1. Plant access roads newly installed during construction of the Plant will be removed, including turbine access roads, substation access road, permanent meteorological tower access road. Additionally, parking areas, storage yards, crane pads, and all other areas constructed from asphalt, concrete, gravel, or compactable fill will be removed, recycled, and reclaimed.
2. Roads that existed prior to construction of the Plant will remain along with any improvements made to these existing roads to make them suitable for Plant use.
3. Crushed rock from roads, balance-of-plant areas, and turbine foundation areas is assumed to have value as a commodity for reuse. The cost to remove the crushed rock, load it into dump trucks, and haul it offsite is assumed to be at the expense of the Plant.
4. The nacelle, tower components, breakers, busbar, transformers, and buildings will be removed by the demolition contractor, and salvageable materials will be sold for scrap. All other demolished materials are considered debris.
5. Cables are assumed to be buried a minimum of four (4) feet below grade. At this depth, all cables (including both power and communication cabling) will remain in place after the Plant is decommissioned.
6. Based on Dodge City, Kansas an SCI of 95.8 percent was applied.

### 3.4.8 West Gardner

1. There is assumed to be no asbestos on site.
2. Based on Kansas City, Kansas an SCI of 90.3 percent was applied.

## 3.5 CCR Final Legacy Rule

It should be noted that there could be significant costs associated with compliance with the EPA's CCR Final Legacy Rule (Legacy Rule) which have not been captured at this time. The Legacy Rule, which went into effect on November 8, 2024, addresses inactive surface impoundments at inactive electric utilities, known as "legacy CCR surface impoundment". The Legacy Rule also defines and includes regulations for CCR Management Units (CCRMUs), which were previously unregulated. A CCRMU is defined as "any area of land on which any noncontainerized accumulation of CCR is received, is placed, or is otherwise managed, that is not a regulated CCR unit. This includes inactive CCR landfills and CCR units that closed prior to October 19, 2015, but does not include roadbed and associated embankments in which CCR is used unless the facility or a permitting authority determines that the roadbed is causing or contributing to a statistically significant level above the groundwater protection standard established under § 257.95(h)."

The Eversource fleet does not include any legacy CCR surface impoundments; however, it is anticipated that CCRMUs will be identified at multiple locations. At this point in time, compliance costs are not well understood as Eversource is still working to identify areas of interest at each of their coal-fired and historically coal-fired facilities, which include:

- Jeffrey Energy Center
- Lawrence Energy Center
- Tecumseh Energy Center
- Iatan Generating Station
- Hawthorn Generating Station
- LaCygne Generating Station
- Lake Road Generating Station
- Montrose Generating Station (decommissioned)

- Sibley Generating Station (decommissioned)
- Ralph Green Generating Station (converted to gas)
- Northeast Power Station (converted to gas)

In most cases, the areas of interest identified are not well documented and will require field investigations to confirm the presence and limits of CCR (i.e. if these areas of interest will be considered CCRMUs). Field investigations are expected to commence this year and continue through 2026 to support development of the Facility Evaluation Reports which are required by the Legacy Rule. Once the limits and site characteristics of any CCRMUs are determined, Evergy will be better able to forecast compliance costs, which will include groundwater monitoring and closure of the units, similar to the 2015 CCR Rule.

## 4.0 Results

1898 & Co. has prepared cost estimates in 2025 dollars for the decommissioning of the Plants. These cost estimates are summarized in the following table.

The following Tables detail the results from each of the estimating methodologies. To support Evergy Metro's depreciation study, the retirement in place costs will be utilized.

### 4.1.1 Full Decommissioning and Dismantlement Costs

When Evergy determines that the Plants should be retired, the above grade equipment and steel structures are assumed to have sufficient scrap value to a scrap contractor to offset a portion of the decommissioning costs for the renewable sites which would be fully dismantled. Evergy will incur costs in the demolition and restoration of the sites less the scrap value of equipment and bulk recycled metals.

Table 4-1: Full Dismantlement Cost Summary (2025\$)

Plant	Gross Decom Cost	Salvage Credits	Net Project Cost
Hawthorn	\$ 62,629,000	\$ (14,052,000)	\$ 48,577,000
Hawthorn Solar	\$ 1,364,300	\$ (417,700)	\$ 946,600
Iatan	\$ 111,768,000	\$ (26,548,000)	\$ 85,220,000
La Cygne	\$ 123,432,000	\$ (18,164,000)	\$ 105,268,000
Northeast	\$ 9,152,000	\$ (3,435,000)	\$ 5,717,000
Osawatomie	\$ 1,243,000	\$ (806,000)	\$ 437,000
Spearville Wind	\$ 13,793,750	\$ (7,991,000)	\$ 5,802,750
West Gardner	\$ 3,031,000	\$ (2,263,000)	\$ 768,000
<b>Total</b>	<b>\$ 326,413,050</b>	<b>\$ (73,676,700)</b>	<b>\$ 252,736,350</b>

### 4.1.2 Decommissioning and Retirement in Place Costs

When Evergy determines that the Plants should be retired the thermal assets will be decommissioned and retired in place while renewable assets will be fully decommissioned and dismantled.

Table 4-2: Decommissioning Cost Summary (2025\$)

Plant	Gross Decom Cost	Salvage Credits	Net Project Cost
Hawthorn	\$ 30,099,000	--	\$ 30,099,000
Hawthorn Solar	\$ 1,364,300	\$ (417,700)	\$ 946,600
Iatan	\$ 61,990,000	--	\$ 61,990,000
La Cygne	\$ 89,886,000	--	\$ 89,886,000
Northeast	\$ 1,936,000	--	\$ 1,936,000
Osawatomie	\$ 395,000	--	\$ 395,000
Spearville Wind	\$ 13,793,750	\$ (7,991,000)	\$ 5,802,750
West Gardner	\$ 1,542,000	--	\$ 1,542,000
<b>Total</b>	<b>\$ 201,006,050</b>	<b>\$ (8,408,700)</b>	<b>\$ 192,597,350</b>

## APPENDIX A - COST ESTIMATE SUMMARIES

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**Table A-1A  
Hawthorn  
Decommissioning Cost Summary**

	Labor	Material and Equipment	Disposal	Environmental	Total Cost	Scrap Value
<b>Hawthorn</b>						
<i>Unit 1</i>						
Boiler	\$ 826,000	\$ 962,000	\$ -	\$ -	\$ 1,788,000	\$ -
Steam Turbine & Building	\$ 507,000	\$ 590,000	\$ -	\$ -	\$ 1,097,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 25,000	\$ -	\$ 25,000	\$ -
Debris	\$ -	\$ -	\$ 17,000	\$ -	\$ 17,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,049,000)
<b>Subtotal</b>	<b>\$ 1,333,000</b>	<b>\$ 1,552,000</b>	<b>\$ 42,000</b>	<b>\$ -</b>	<b>\$ 2,927,000</b>	<b>\$ (1,049,000)</b>
<i>Unit 2</i>						
Boiler	\$ 826,000	\$ 962,000	\$ -	\$ -	\$ 1,788,000	\$ -
Steam Turbine & Building	\$ 507,000	\$ 590,000	\$ -	\$ -	\$ 1,097,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 25,000	\$ -	\$ 25,000	\$ -
Debris	\$ -	\$ -	\$ 17,000	\$ -	\$ 17,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,049,000)
<b>Subtotal</b>	<b>\$ 1,333,000</b>	<b>\$ 1,552,000</b>	<b>\$ 42,000</b>	<b>\$ -</b>	<b>\$ 2,927,000</b>	<b>\$ (1,049,000)</b>
<i>Unit 3</i>						
Boiler	\$ 826,000	\$ 962,000	\$ -	\$ -	\$ 1,788,000	\$ -
Steam Turbine & Building	\$ 507,000	\$ 590,000	\$ -	\$ -	\$ 1,097,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 25,000	\$ -	\$ 25,000	\$ -
Debris	\$ -	\$ -	\$ 17,000	\$ -	\$ 17,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,049,000)
<b>Subtotal</b>	<b>\$ 1,333,000</b>	<b>\$ 1,552,000</b>	<b>\$ 42,000</b>	<b>\$ -</b>	<b>\$ 2,927,000</b>	<b>\$ (1,049,000)</b>
<i>Unit 4</i>						
Boiler	\$ 826,000	\$ 962,000	\$ -	\$ -	\$ 1,788,000	\$ -
Steam Turbine & Building	\$ 47,000	\$ 54,000	\$ -	\$ -	\$ 101,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 3,000	\$ -	\$ 3,000	\$ -
Debris	\$ -	\$ -	\$ 17,000	\$ -	\$ 17,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (734,000)
<b>Subtotal</b>	<b>\$ 873,000</b>	<b>\$ 1,016,000</b>	<b>\$ 20,000</b>	<b>\$ -</b>	<b>\$ 1,909,000</b>	<b>\$ (734,000)</b>
<i>Unit 5</i>						
Boiler	\$ 2,488,000	\$ 2,896,000	\$ -	\$ -	\$ 5,384,000	\$ -
Steam Turbine & Building	\$ 1,454,000	\$ 1,693,000	\$ -	\$ -	\$ 3,147,000	\$ -
SCR	\$ 600,000	\$ 699,000	\$ -	\$ -	\$ 1,299,000	\$ -
Scrubber / FGD	\$ 639,000	\$ 744,000	\$ -	\$ -	\$ 1,383,000	\$ -
Baghouse	\$ 1,073,000	\$ 1,250,000	\$ -	\$ -	\$ 2,323,000	\$ -
Stacks	\$ 251,000	\$ 292,000	\$ -	\$ -	\$ 543,000	\$ -
GSU & Foundation	\$ 111,000	\$ 129,000	\$ -	\$ -	\$ 240,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 149,000	\$ -	\$ 149,000	\$ -
Debris	\$ -	\$ -	\$ 33,000	\$ -	\$ 33,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (5,979,000)
<b>Subtotal</b>	<b>\$ 6,616,000</b>	<b>\$ 7,703,000</b>	<b>\$ 182,000</b>	<b>\$ -</b>	<b>\$ 14,501,000</b>	<b>\$ (5,979,000)</b>
<i>Unit 6 and 9</i>						
CTGs and HRSGs	\$ 1,239,000	\$ 1,442,000	\$ -	\$ -	\$ 2,681,000	\$ -
Steam Turbine & Building	\$ 539,000	\$ 627,000	\$ -	\$ -	\$ 1,166,000	\$ -
Cooling Towers & Basin	\$ 119,000	\$ 138,000	\$ -	\$ -	\$ 257,000	\$ -
Stacks	\$ 2,000	\$ 3,000	\$ -	\$ -	\$ 5,000	\$ -
GSU & Foundation	\$ 35,000	\$ 40,000	\$ -	\$ -	\$ 75,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 28,000	\$ -	\$ 28,000	\$ -
Debris	\$ -	\$ -	\$ 24,000	\$ -	\$ 24,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (2,386,000)
<b>Subtotal</b>	<b>\$ 1,934,000</b>	<b>\$ 2,250,000</b>	<b>\$ 52,000</b>	<b>\$ -</b>	<b>\$ 4,236,000</b>	<b>\$ (2,386,000)</b>
<i>Unit 7 and 8</i>						
CTGs and HRSGs	\$ 450,000	\$ 524,000	\$ -	\$ -	\$ 974,000	\$ -
Stacks	\$ 10,000	\$ 11,000	\$ -	\$ -	\$ 21,000	\$ -
GSU & Foundation	\$ 28,000	\$ 33,000	\$ -	\$ -	\$ 61,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 5,000	\$ -	\$ 5,000	\$ -
Debris	\$ -	\$ -	\$ 23,000	\$ -	\$ 23,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (980,000)
<b>Subtotal</b>	<b>\$ 488,000</b>	<b>\$ 568,000</b>	<b>\$ 28,000</b>	<b>\$ -</b>	<b>\$ 1,084,000</b>	<b>\$ (980,000)</b>
<i>Handling</i>						
Coal Handling Facilities	\$ 365,000	\$ 425,000	\$ -	\$ -	\$ 790,000	\$ -
Coal Storage Area Restoration	\$ -	\$ -	\$ -	\$ 6,027,000	\$ 6,027,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 4,000	\$ -	\$ 4,000	\$ -
Debris	\$ -	\$ -	\$ 53,000	\$ -	\$ 53,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (216,000)
<b>Subtotal</b>	<b>\$ 365,000</b>	<b>\$ 425,000</b>	<b>\$ 57,000</b>	<b>\$ 6,027,000</b>	<b>\$ 6,874,000</b>	<b>\$ (216,000)</b>
<i>Common</i>						
Cooling Water Intakes and Circulating Water Pumps	\$ 162,000	\$ 188,000	\$ -	\$ 681,000	\$ 1,031,000	\$ -
BOP Misc.	\$ 467,000	\$ 544,000	\$ -	\$ -	\$ 1,011,000	\$ -
Roads	\$ 109,000	\$ 127,000	\$ -	\$ -	\$ 236,000	\$ -
All BOP Buildings	\$ 570,000	\$ 663,000	\$ -	\$ -	\$ 1,233,000	\$ -
Fuel Equipment	\$ 97,000	\$ 113,000	\$ -	\$ -	\$ 210,000	\$ -
All Other Tanks	\$ 194,000	\$ 226,000	\$ -	\$ -	\$ 420,000	\$ -
Transformers & Foundation	\$ 81,000	\$ 95,000	\$ -	\$ 206,000	\$ 382,000	\$ -
Asbestos Removal	\$ -	\$ -	\$ -	\$ 4,285,000	\$ 4,285,000	\$ -
Mercury & Universal Waste Disposal	\$ -	\$ -	\$ -	\$ 62,000	\$ 62,000	\$ -
Pond Closure	\$ -	\$ -	\$ -	\$ 3,425,000	\$ 3,425,000	\$ -
Plant Washdown & Materials Disposal	\$ -	\$ -	\$ -	\$ 90,000	\$ 90,000	\$ -
Concrete Removal, Crushing, & Disposal	\$ -	\$ -	\$ 55,000	\$ -	\$ 55,000	\$ -
Grading & Seeding	\$ -	\$ -	\$ -	\$ 267,000	\$ 267,000	\$ -
Debris	\$ -	\$ -	\$ 11,000	\$ -	\$ 11,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (610,000)
<b>Subtotal</b>	<b>\$ 1,680,000</b>	<b>\$ 1,956,000</b>	<b>\$ 66,000</b>	<b>\$ 9,016,000</b>	<b>\$ 12,718,000</b>	<b>\$ (610,000)</b>
<b>Hawthorn Subtotal</b>	<b>\$ 15,955,000</b>	<b>\$ 18,574,000</b>	<b>\$ 531,000</b>	<b>\$ 15,043,000</b>	<b>\$ 50,103,000</b>	<b>\$ (14,052,000)</b>
<b>TOTAL DECOM COST (CREDIT)</b>					<b>\$ 50,103,000</b>	<b>\$ (14,052,000)</b>
<b>PROJECT INDIRECTS (5%)</b>					<b>\$ 2,505,000</b>	
<b>CONTINGENCY (20%)</b>					<b>\$ 10,021,000</b>	
<b>TOTAL PROJECT COST (CREDIT)</b>					<b>\$ 62,629,000</b>	<b>\$ (14,052,000)</b>
<b>TOTAL NET PROJECT COST (CREDIT)</b>					<b>\$ 48,577,000</b>	

**Table A-1B  
Hawthorne  
Retire In Place Cost Summary**

<b>Task</b>	<b>Cost</b>
Retire In Place	\$ 14,432,000
Transformer Oil Disposal	\$ 133,000
Mecury Waste Disposal	\$ 62,000
Remediate Coal Pile	\$ 6,027,000
Close Non-CCR Ponds	\$ 3,425,000
SUBTOTAL	\$ 24,079,000
CONTINGENCY (20%)	\$ 4,816,000.00
OWNERS INDIRECTS (5%)	\$ 1,204,000.00
TOTAL	\$ 30,099,000



**Table A-2A  
Hawthorn Solar  
Solar Decommissioning Cost Summary**

Hawthorn Solar	Labor	Material and Equipment	Disposal	Environmental	Total Cost	Scrap Value
<i>Solar Farm</i>						
Solar Panel Removal	\$ 226,500	\$ 212,100	\$ 44,600	\$ -	\$ 483,200	\$ -
Panel Supports/Rack	\$ 188,000	\$ 176,100	\$ -	\$ -	\$ 364,100	\$ -
Electrical & Wiring	\$ 20,000	\$ 18,500	\$ -	\$ -	\$ 38,500	\$ -
Site Restoration	\$ 36,400	\$ 34,100	\$ -	\$ 134,200	\$ 204,700	\$ -
On-site Concrete Crushing and Removal	\$ -	\$ -	\$ 100	\$ -	\$ 100	\$ -
Debris	\$ -	\$ -	\$ 800	\$ -	\$ 800	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (417,700)
<b>Subtotal</b>	<b>\$ 470,900</b>	<b>\$ 440,800</b>	<b>\$ 45,500</b>	<b>\$ 134,200</b>	<b>\$ 1,091,400</b>	<b>\$ (417,700)</b>
<b>Hawthorn Solar Subtotal</b>	<b>\$ 470,900</b>	<b>\$ 440,800</b>	<b>\$ 45,500</b>	<b>\$ 134,200</b>	<b>\$ 1,091,400</b>	<b>\$ (417,700)</b>
<b>TOTAL DECOM COST (CREDIT)</b>					<b>\$ 1,091,400</b>	<b>\$ (417,700)</b>
<b>PROJECT INDIRECTS (5%)</b>					<b>\$ 54,600</b>	
<b>CONTINGENCY (20%)</b>					<b>\$ 218,300</b>	
<b>TOTAL PROJECT COST (CREDIT)</b>					<b>\$ 1,364,300</b>	<b>\$ (417,700)</b>
<b>TOTAL NET PROJECT COST (CREDIT)</b>					<b>\$ 946,600</b>	

**Table A-3A  
Iatan  
Decommissioning Cost Summary**

	Labor	Material and Equipment	Disposal	Environmental	Total Cost	Scrap Value
<b>Iatan</b>						
<i>Unit 1</i>						
Asbestos Removal	\$ -	\$ -	\$ -	\$ 1,227,000	\$ 1,227,000	\$ -
Boiler	\$ 3,519,000	\$ 4,097,000	\$ -	\$ -	\$ 7,616,000	\$ -
Steam Turbine & Building	\$ 1,934,000	\$ 2,252,000	\$ -	\$ -	\$ 4,186,000	\$ -
SCR	\$ 647,000	\$ 753,000	\$ -	\$ -	\$ 1,400,000	\$ -
Scrubber / FGD	\$ 390,000	\$ 454,000	\$ -	\$ -	\$ 844,000	\$ -
Baghouse	\$ 339,000	\$ 394,000	\$ -	\$ -	\$ 733,000	\$ -
Stacks	\$ 260,000	\$ 303,000	\$ -	\$ -	\$ 563,000	\$ -
Cooling Water Intakes and Circulating Water Pumps	\$ 1,000	\$ 1,000	\$ -	\$ -	\$ 2,000	\$ -
GSU & Foundation	\$ 126,000	\$ 147,000	\$ -	\$ -	\$ 273,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 213,000	\$ -	\$ 213,000	\$ -
Debris	\$ -	\$ -	\$ 45,000	\$ -	\$ 45,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (11,134,000)
<b>Subtotal</b>	<b>\$ 7,216,000</b>	<b>\$ 8,401,000</b>	<b>\$ 258,000</b>	<b>\$ 1,227,000</b>	<b>\$ 17,102,000</b>	<b>\$ (11,134,000)</b>
<i>Unit 2</i>						
Boiler	\$ 4,400,000	\$ 5,124,000	\$ -	\$ -	\$ 9,524,000	\$ -
Steam Turbine & Building	\$ 3,316,000	\$ 3,861,000	\$ -	\$ -	\$ 7,177,000	\$ -
SCR	\$ 894,000	\$ 1,041,000	\$ -	\$ -	\$ 1,935,000	\$ -
Scrubber / FGD	\$ 418,000	\$ 487,000	\$ -	\$ -	\$ 905,000	\$ -
Baghouse	\$ 425,000	\$ 494,000	\$ -	\$ -	\$ 919,000	\$ -
Cooling Towers & Basin	\$ 1,563,000	\$ 1,820,000	\$ -	\$ -	\$ 3,383,000	\$ -
Stacks	\$ 269,000	\$ 313,000	\$ -	\$ -	\$ 582,000	\$ -
Cooling Water Intakes and Circulating Water Pumps	\$ 1,000	\$ 1,000	\$ -	\$ -	\$ 2,000	\$ -
GSU & Foundation	\$ 232,000	\$ 270,000	\$ -	\$ -	\$ 502,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 378,000	\$ -	\$ 378,000	\$ -
Debris	\$ -	\$ -	\$ 59,000	\$ -	\$ 59,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (14,192,000)
<b>Subtotal</b>	<b>\$ 11,518,000</b>	<b>\$ 13,411,000</b>	<b>\$ 437,000</b>	<b>\$ -</b>	<b>\$ 25,366,000</b>	<b>\$ (14,192,000)</b>
<i>Handling</i>						
Coal Handling Facilities	\$ 608,000	\$ 708,000	\$ -	\$ -	\$ 1,316,000	\$ -
Coal Storage Area Restoration	\$ -	\$ -	\$ -	\$ 10,980,000	\$ 10,980,000	\$ -
Limestone Handling Facilities	\$ 139,000	\$ 162,000	\$ -	\$ -	\$ 301,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 6,000	\$ -	\$ 6,000	\$ -
Debris	\$ -	\$ -	\$ 122,000	\$ -	\$ 122,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (464,000)
<b>Subtotal</b>	<b>\$ 747,000</b>	<b>\$ 870,000</b>	<b>\$ 128,000</b>	<b>\$ 10,980,000</b>	<b>\$ 12,725,000</b>	<b>\$ (464,000)</b>
<i>Common</i>						
Cooling Water Intakes and Circulating Water Pumps	\$ 206,000	\$ 240,000	\$ -	\$ 748,000	\$ 1,194,000	\$ -
BOP Misc.	\$ 193,000	\$ 225,000	\$ -	\$ -	\$ 418,000	\$ -
Roads	\$ 522,000	\$ 607,000	\$ -	\$ -	\$ 1,129,000	\$ -
All BOP Buildings	\$ 772,000	\$ 899,000	\$ -	\$ -	\$ 1,671,000	\$ -
Fuel Equipment	\$ 81,000	\$ 94,000	\$ -	\$ -	\$ 175,000	\$ -
All Other Tanks	\$ 551,000	\$ 642,000	\$ -	\$ -	\$ 1,193,000	\$ -
Closure of Coal Runoff Pond	\$ -	\$ -	\$ -	\$ 12,127,000	\$ 12,127,000	\$ -
Cooling Towers and Basin	\$ -	\$ -	\$ -	\$ 12,928,000	\$ 12,928,000	\$ -
Plant Washdown & Materials Disposal	\$ -	\$ -	\$ -	\$ 80,000	\$ 80,000	\$ -
Concrete Removal, Crushing, & Disposal	\$ -	\$ -	\$ 59,000	\$ -	\$ 59,000	\$ -
Grading & Seeding	\$ -	\$ -	\$ -	\$ 3,232,000	\$ 3,232,000	\$ -
Debris	\$ -	\$ -	\$ 15,000	\$ -	\$ 15,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (758,000)
<b>Subtotal</b>	<b>\$ 2,325,000</b>	<b>\$ 2,707,000</b>	<b>\$ 74,000</b>	<b>\$ 29,115,000</b>	<b>\$ 34,221,000</b>	<b>\$ (758,000)</b>
<b>Iatan Subtotal</b>	<b>\$ 21,806,000</b>	<b>\$ 25,389,000</b>	<b>\$ 897,000</b>	<b>\$ 41,322,000</b>	<b>\$ 89,414,000</b>	<b>\$ (26,548,000)</b>
<b>TOTAL DECOM COST (CREDIT)</b>					<b>\$ 89,414,000</b>	<b>\$ (26,548,000)</b>
<b>PROJECT INDIRECTS (5%)</b>					<b>\$ 4,471,000</b>	
<b>CONTINGENY (20%)</b>					<b>\$ 17,883,000</b>	
<b>TOTAL PROJECT COST (CREDIT)</b>					<b>\$ 111,768,000</b>	<b>\$ (26,548,000)</b>
<b>TOTAL NET PROJECT COST (CREDIT)</b>					<b>\$ 85,220,000</b>	

**Table A-3B**  
**Iatan**  
**Retire In Place Cost Summary**

<b>Task</b>	<b>Cost</b>
Retire In Place	\$ 23,643,000
Transformer Oil Disposal	\$ 194,000
Mecury Waste Disposal	\$ 124,000
Remediate Coal Pile	\$ 10,980,000
Coal Pile Runoff	\$ 6,471,000
Landfill	\$ 8,180,000
SUBTOTAL	\$ 49,592,000
CONTINGENCY (20%)	\$ 9,918,000
OWNERS INDIRECTS (5%)	\$ 2,480,000.00
TOTAL	\$ 61,990,000

**Table A-4A  
LaCygne  
Decommissioning Cost Summary**

	Labor	Material and Equipment	Disposal	Environmental	Total Cost	Scrap Value
<b>LaCygne</b>						
<i>Unit 1</i>						
Asbestos Removal	\$ -	\$ -	\$ -	\$ 3,133,000	\$ 3,133,000	\$ -
Boiler	\$ 2,827,000	\$ 4,968,000	\$ -	\$ -	\$ 7,795,000	\$ -
Steam Turbine & Building	\$ 1,352,000	\$ 2,376,000	\$ -	\$ -	\$ 3,728,000	\$ -
SCR	\$ 516,000	\$ 907,000	\$ -	\$ -	\$ 1,423,000	\$ -
Scrubber / FGD	\$ 657,000	\$ 1,155,000	\$ -	\$ -	\$ 1,812,000	\$ -
Baghouse	\$ 821,000	\$ 1,443,000	\$ -	\$ -	\$ 2,264,000	\$ -
Stacks	\$ 159,000	\$ 280,000	\$ -	\$ -	\$ 439,000	\$ -
Cooling Water Intakes and Circulating Water Pumps	\$ 19,000	\$ 33,000	\$ -	\$ -	\$ 52,000	\$ -
GSU & Foundation	\$ 82,000	\$ 145,000	\$ -	\$ -	\$ 227,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 196,000	\$ -	\$ 196,000	\$ -
Debris	\$ -	\$ -	\$ 46,000	\$ -	\$ 46,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (8,133,000)
<b>Subtotal</b>	<b>\$ 6,433,000</b>	<b>\$ 11,307,000</b>	<b>\$ 242,000</b>	<b>\$ 3,133,000</b>	<b>\$ 21,115,000</b>	<b>\$ (8,133,000)</b>
<i>Unit 2</i>						
Asbestos Removal	\$ -	\$ -	\$ -	\$ 2,602,000	\$ 2,602,000	\$ -
Boiler	\$ 2,507,000	\$ 4,406,000	\$ -	\$ -	\$ 6,913,000	\$ -
Steam Turbine & Building	\$ 1,264,000	\$ 2,222,000	\$ -	\$ -	\$ 3,486,000	\$ -
Precipitator	\$ 543,000	\$ 954,000	\$ -	\$ -	\$ 1,497,000	\$ -
SCR	\$ 699,000	\$ 1,229,000	\$ -	\$ -	\$ 1,928,000	\$ -
Scrubber / FGD	\$ 604,000	\$ 1,062,000	\$ -	\$ -	\$ 1,666,000	\$ -
Baghouse	\$ 777,000	\$ 1,365,000	\$ -	\$ -	\$ 2,142,000	\$ -
Stacks	\$ 159,000	\$ 280,000	\$ -	\$ -	\$ 439,000	\$ -
Cooling Water Intakes and Circulating Water Pumps	\$ 17,000	\$ 30,000	\$ -	\$ -	\$ 47,000	\$ -
GSU & Foundation	\$ 86,000	\$ 150,000	\$ -	\$ -	\$ 236,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 218,000	\$ -	\$ 218,000	\$ -
Debris	\$ -	\$ -	\$ 39,000	\$ -	\$ 39,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (7,933,000)
<b>Subtotal</b>	<b>\$ 6,656,000</b>	<b>\$ 11,698,000</b>	<b>\$ 257,000</b>	<b>\$ 2,602,000</b>	<b>\$ 21,213,000</b>	<b>\$ (7,933,000)</b>
<i>Handling</i>						
Coal Handling Facilities	\$ 664,000	\$ 1,166,000	\$ -	\$ -	\$ 1,830,000	\$ -
Coal Storage Area Restoration	\$ -	\$ -	\$ -	\$ 11,325,000	\$ 11,325,000	\$ -
Limestone Handling Facilities	\$ 69,000	\$ 122,000	\$ -	\$ -	\$ 191,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 9,000	\$ -	\$ 9,000	\$ -
Debris	\$ -	\$ -	\$ 87,000	\$ -	\$ 87,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (670,000)
<b>Subtotal</b>	<b>\$ 733,000</b>	<b>\$ 1,288,000</b>	<b>\$ 96,000</b>	<b>\$ 11,325,000</b>	<b>\$ 13,442,000</b>	<b>\$ (670,000)</b>
<i>Common 1</i>						
Switchyard and Substation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Treatment Equipment and Piping	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cooling Water Intakes and Circulating Water Pumps	\$ 33,000	\$ 57,000	\$ -	\$ 530,000	\$ 620,000	\$ -
BOP Misc.	\$ 363,000	\$ 638,000	\$ -	\$ -	\$ 1,002,000	\$ -
Roads	\$ 30,000	\$ 53,000	\$ -	\$ -	\$ 82,000	\$ -
All BOP Buildings	\$ 363,000	\$ 638,000	\$ -	\$ -	\$ 1,002,000	\$ -
Fuel Equipment	\$ 148,000	\$ 260,000	\$ -	\$ -	\$ 409,000	\$ -
All Other Tanks	\$ 319,000	\$ 560,000	\$ -	\$ -	\$ 879,000	\$ -
Transformers & Foundation	\$ 65,000	\$ 114,000	\$ -	\$ 226,000	\$ 405,000	\$ -
Mercury & Universal Waste Disposal	\$ -	\$ -	\$ -	\$ 48,000	\$ 48,000	\$ -
Pond Closure	\$ -	\$ -	\$ -	\$ 322,000	\$ 322,000	\$ -
Closure of Coal Runoff Pond	\$ -	\$ -	\$ -	\$ 19,726,000	\$ 19,726,000	\$ -
Plant Washdown & Materials Disposal	\$ -	\$ -	\$ -	\$ 46,000	\$ 46,000	\$ -
Concrete Removal, Crushing, & Disposal	\$ -	\$ -	\$ 69,000	\$ -	\$ 69,000	\$ -
Grading & Seeding	\$ -	\$ -	\$ -	\$ 1,165,000	\$ 1,165,000	\$ -
Debris	\$ -	\$ -	\$ 11,000	\$ -	\$ 11,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (857,000)
<b>Subtotal</b>	<b>\$ 1,321,000</b>	<b>\$ 2,320,000</b>	<b>\$ 80,000</b>	<b>\$ 22,063,000</b>	<b>\$ 25,786,000</b>	<b>\$ (857,000)</b>
<i>Common 2</i>						
Cooling Water Intakes and Circulating Water Pumps	\$ 22,000	\$ 38,000	\$ -	\$ 353,000	\$ 413,000	\$ -
BOP Misc.	\$ 242,000	\$ 426,000	\$ -	\$ -	\$ 668,000	\$ -
Roads	\$ 20,000	\$ 35,000	\$ -	\$ -	\$ 55,000	\$ -
All BOP Buildings	\$ 242,000	\$ 426,000	\$ -	\$ -	\$ 668,000	\$ -
Fuel Equipment	\$ 99,000	\$ 174,000	\$ -	\$ -	\$ 272,000	\$ -
All Other Tanks	\$ 212,000	\$ 373,000	\$ -	\$ -	\$ 586,000	\$ -
Transformers & Foundation	\$ 43,000	\$ 76,000	\$ -	\$ 151,000	\$ 270,000	\$ -
Mercury & Universal Waste Disposal	\$ -	\$ -	\$ -	\$ 32,000	\$ 32,000	\$ -
Pond Closure	\$ -	\$ -	\$ -	\$ 215,000	\$ 215,000	\$ -
Closure of Coal Runoff Pond	\$ -	\$ -	\$ -	\$ 13,150,000	\$ 13,150,000	\$ -
Plant Washdown & Materials Disposal	\$ -	\$ -	\$ -	\$ 31,000	\$ 31,000	\$ -
Concrete Removal, Crushing, & Disposal	\$ -	\$ -	\$ 46,000	\$ -	\$ 46,000	\$ -
Grading & Seeding	\$ -	\$ -	\$ -	\$ 777,000	\$ 777,000	\$ -
Debris	\$ -	\$ -	\$ 7,000	\$ -	\$ 7,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (571,000)
<b>Subtotal</b>	<b>\$ 880,000</b>	<b>\$ 1,548,000</b>	<b>\$ 53,000</b>	<b>\$ 14,709,000</b>	<b>\$ 17,190,000</b>	<b>\$ (571,000)</b>
<b>LaCygne Subtotal</b>	<b>\$ 16,023,000</b>	<b>\$ 28,161,000</b>	<b>\$ 728,000</b>	<b>\$ 53,832,000</b>	<b>\$ 98,746,000</b>	<b>\$ (18,164,000)</b>
<b>TOTAL DECOM COST (CREDIT)</b>					<b>\$ 98,746,000</b>	<b>\$ (18,164,000)</b>
<b>PROJECT INDIRECTS (5%)</b>					<b>\$ 4,937,000</b>	
<b>CONTINGENCY (20%)</b>					<b>\$ 19,749,000</b>	
<b>TOTAL PROJECT COST (CREDIT)</b>					<b>\$ 123,432,000</b>	<b>\$ (18,164,000)</b>
<b>TOTAL NET PROJECT COST (CREDIT)</b>					<b>\$ 105,268,000</b>	

**Table A-4B**  
**La Cygne**  
**Retire In Place Cost Summary**

<b>Task</b>	<b>Cost</b>
Retire In Place	\$ 21,077,000
Unit 1 Encapsulation	\$ 3,133,000
Unit 2 Encapsulation	\$ 2,602,000
Transformer Oil Disposal	\$ 280,000
Mecury Waste Disposal	\$ 79,000
Remediate Coal Pile	\$ 11,325,000
Coal Pile Runoff	\$ 32,876,000
Pond Closure	\$ 537,000
SUBTOTAL	\$ 71,909,000
CONTINGENCY (20%)	\$ 14,382,000.00
OWNERS INDIRECTS (5%)	\$ 3,595,000.00
TOTAL	\$ 89,886,000

**Table A-5A  
Northeast  
Decommissioning Cost Summary**

	Labor	Material and Equipment	Disposal	Environmental	Total Cost	Scrap Value
<b>Northeast</b>						
<i>Units 11-12</i>						
CTGs and HRSGs	\$ 249,000	\$ 290,000	\$ -	\$ -	\$ 539,000	\$ -
Stacks	\$ 10,000	\$ 11,000	\$ -	\$ -	\$ 21,000	\$ -
GSU & Foundation	\$ 36,000	\$ 42,000	\$ -	\$ -	\$ 78,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 3,000	\$ -	\$ 3,000	\$ -
Debris	\$ -	\$ -	\$ 13,000	\$ -	\$ 13,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (671,000)
<b>Subtotal</b>	<b>\$ 295,000</b>	<b>\$ 343,000</b>	<b>\$ 16,000</b>	<b>\$ -</b>	<b>\$ 654,000</b>	<b>\$ (671,000)</b>
<i>Units 13-18</i>						
CTGs and HRSGs	\$ 921,000	\$ 1,073,000	\$ -	\$ -	\$ 1,994,000	\$ -
Stacks	\$ 29,000	\$ 33,000	\$ -	\$ -	\$ 62,000	\$ -
GSU & Foundation	\$ 105,000	\$ 122,000	\$ -	\$ -	\$ 227,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 9,000	\$ -	\$ 9,000	\$ -
Debris	\$ -	\$ -	\$ 52,000	\$ -	\$ 52,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (2,494,000)
<b>Subtotal</b>	<b>\$ 1,055,000</b>	<b>\$ 1,228,000</b>	<b>\$ 61,000</b>	<b>\$ -</b>	<b>\$ 2,344,000</b>	<b>\$ (2,494,000)</b>
<i>Common</i>						
BOP Misc.	\$ 515,000	\$ 600,000	\$ -	\$ -	\$ 1,115,000	\$ -
Roads	\$ 268,000	\$ 312,000	\$ -	\$ -	\$ 580,000	\$ -
All BOP Buildings	\$ 596,000	\$ 694,000	\$ -	\$ -	\$ 1,290,000	\$ -
Fuel Equipment	\$ 243,000	\$ 283,000	\$ -	\$ 418,000	\$ 944,000	\$ -
Transformers & Foundation	\$ 7,000	\$ 9,000	\$ -	\$ 109,000	\$ 125,000	\$ -
Mercury & Universal Waste Disposal	\$ -	\$ -	\$ -	\$ 27,000	\$ 27,000	\$ -
Concrete Removal, Crushing, & Disposal	\$ -	\$ -	\$ 61,000	\$ -	\$ 61,000	\$ -
Grading & Seeding	\$ -	\$ -	\$ -	\$ 180,000	\$ 180,000	\$ -
Debris	\$ -	\$ -	\$ 2,000	\$ -	\$ 2,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (270,000)
<b>Subtotal</b>	<b>\$ 1,629,000</b>	<b>\$ 1,898,000</b>	<b>\$ 63,000</b>	<b>\$ 734,000</b>	<b>\$ 4,324,000</b>	<b>\$ (270,000)</b>
<b>Northeast Subtotal</b>	<b>\$ 2,979,000</b>	<b>\$ 3,469,000</b>	<b>\$ 140,000</b>	<b>\$ 734,000</b>	<b>\$ 7,322,000</b>	<b>\$ (3,435,000)</b>
<b>TOTAL DECOM COST (CREDIT)</b>					<b>\$ 7,322,000</b>	<b>\$ (3,435,000)</b>
<b>PROJECT INDIRECTS (5%)</b>					<b>\$ 366,000</b>	
<b>CONTINGENCY (20%)</b>					<b>\$ 1,464,000</b>	
<b>TOTAL PROJECT COST (CREDIT)</b>					<b>\$ 9,152,000</b>	<b>\$ (3,435,000)</b>
<b>TOTAL NET PROJECT COST (CREDIT)</b>					<b>\$ 5,717,000</b>	

**Table A-5B  
Northeast  
Retire In Place Cost Summary**

<b>Task</b>	<b>Cost</b>
Retire In Place	\$ 1,465,000
Transformer Oil Disposal	\$ 57,000
Mecury Waste Disposal	\$ 27,000
SUBTOTAL	\$ 1,549,000
CONTINGENCY (20%)	\$ 310,000.00
OWNERS INDIRECTS (5%)	\$ 77,000.00
TOTAL	\$ 1,936,000

**Table A-6A  
Osawatomie  
Decommissioning Cost Summary**

	Labor	Material and Equipment	Disposal	Environmental	Total Cost	Scrap Value
<b>Osawatomie</b>						
<i>Unit 1</i>						
CTGs and HRSGs	\$ 240,000	\$ 422,000	\$ -	\$ -	\$ 662,000	\$ -
Stacks	\$ 4,000	\$ 6,000	\$ -	\$ -	\$ 10,000	\$ -
GSU & Foundation	\$ 45,000	\$ 79,000	\$ -	\$ 33,000	\$ 157,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 4,000	\$ -	\$ 4,000	\$ -
Debris	\$ -	\$ -	\$ 13,000	\$ -	\$ 13,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (797,000)
<b>Subtotal</b>	<b>\$ 289,000</b>	<b>\$ 507,000</b>	<b>\$ 17,000</b>	<b>\$ 33,000</b>	<b>\$ 846,000</b>	<b>\$ (797,000)</b>
<i>Common</i>						
All BOP Buildings	\$ 8,000	\$ 13,000	\$ -	\$ -	\$ 21,000	\$ -
Transformers & Foundation	\$ 5,000	\$ 9,000	\$ -	\$ -	\$ 14,000	\$ -
Mercury & Universal Waste Disposal	\$ -	\$ -	\$ -	\$ 17,000	\$ 17,000	\$ -
Grading & Seeding	\$ -	\$ -	\$ -	\$ 95,000	\$ 95,000	\$ -
Debris	\$ -	\$ -	\$ 1,000	\$ -	\$ 1,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (9,000)
<b>Subtotal</b>	<b>\$ 13,000</b>	<b>\$ 22,000</b>	<b>\$ 1,000</b>	<b>\$ 112,000</b>	<b>\$ 148,000</b>	<b>\$ (9,000)</b>
<b>Osawatomie Subtotal</b>	<b>\$ 302,000</b>	<b>\$ 529,000</b>	<b>\$ 18,000</b>	<b>\$ 145,000</b>	<b>\$ 994,000</b>	<b>\$ (806,000)</b>
<b>TOTAL DECOM COST (CREDIT)</b>					<b>\$ 994,000</b>	<b>\$ (806,000)</b>
<b>PROJECT INDIRECTS (5%)</b>					<b>\$ 50,000</b>	
<b>CONTINGENY (20%)</b>					<b>\$ 199,000</b>	
<b>TOTAL PROJECT COST (CREDIT)</b>					<b>\$ 1,243,000</b>	<b>\$ (806,000)</b>
<b>TOTAL NET PROJECT COST (CREDIT)</b>					<b>\$ 437,000</b>	



**Table A-6B  
Osawatomie  
Retire In Place Cost Summary**

<b>Task</b>	<b>Rounded Cost</b>
Retire In Place	\$ 283,000
Transformer Oil Disposal	\$ 16,000
Mecury Waste Disposal	\$ 17,000
SUBTOTAL	\$ 316,000
CONTINGENCY (20%)	\$ 63,000.00
OWNERS INDIRECTS (5%)	\$ 16,000.00
TOTAL	\$ 395,000

**Table A-7A: Estimated Cost for Wind Turbine Decommissioning (2025\$)**  
**Spearville Wind Project**  
 Decommissioning Cost Evaluation

<b>Wind Turbine Removal Cost</b>		
Removal	\$	6,752,000
Hauling & Disposal	\$	340,000
<b>Total</b>	<b>\$</b>	<b>7,092,000</b>
<b>Scrap Value</b>	<b>\$</b>	<b>(7,641,000)</b>
<b>Wind Turbine Foundation Removal Cost</b>		
Removal	\$	682,000
Hauling & Disposal	\$	586,000
<b>Total</b>	<b>\$</b>	<b>1,268,000</b>
<b>Substation Removal Cost</b>		
Removal	\$	303,000
Hauling & Disposal	\$	25,000
<b>Total</b>	<b>\$</b>	<b>328,000</b>
<b>Scrap Value</b>	<b>\$</b>	<b>(348,000)</b>
<b>Civil Works Removal Cost</b>		
Removal	\$	1,392,000
Hauling & Disposal	\$	390,000
Grading & Seeding Costs	\$	455,000
<b>Total</b>	<b>\$</b>	<b>2,237,000</b>
<b>Met Tower Removal</b>		
Removal	\$	24,000
Hauling & Disposal	\$	1,000
<b>Total</b>	<b>\$</b>	<b>25,000</b>
<b>Scrap Value</b>	<b>\$</b>	<b>(2,000)</b>
<b>Other Costs</b>		
Oils & Chemicals Removal & Disposal	\$	85,000
<b>Total</b>	<b>\$</b>	<b>85,000</b>
<hr/>		
<b>Total Estimated Cost</b>	<b>\$</b>	<b>11,035,000</b>
<b>Owner Indirects (5%)</b>	<b>\$</b>	<b>551,750</b>
<b>Contingency (20%)</b>	<b>\$</b>	<b>2,207,000</b>
<b>Total Gross Cost</b>	<b>\$</b>	<b>13,793,750</b>
<b>Total Scrap Value</b>	<b>\$</b>	<b>(7,991,000)</b>
<b>Total Net Cost</b>	<b>\$</b>	<b>5,802,750</b>

**Table A-8A  
West Gardner  
Decommissioning Cost Summary**

<b>West Gardner</b>	<b>Labor</b>	<b>Material and Equipment</b>	<b>Disposal</b>	<b>Environmental</b>	<b>Total Cost</b>	<b>Scrap Value</b>
<i>Unit 1-4</i>						
CTGs and HRSGs	\$ 485,000	\$ 853,000	\$ -	\$ -	\$ 1,338,000	\$ -
Stacks	\$ 15,000	\$ 26,000	\$ -	\$ -	\$ 41,000	\$ -
GSU & Foundation	\$ 148,000	\$ 260,000	\$ -	\$ 151,000	\$ 559,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 9,000	\$ -	\$ 9,000	\$ -
Debris	\$ -	\$ -	\$ 94,000	\$ -	\$ 94,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (2,225,000)
<b>Subtotal</b>	<b>\$ 648,000</b>	<b>\$ 1,139,000</b>	<b>\$ 103,000</b>	<b>\$ 151,000</b>	<b>\$ 2,041,000</b>	<b>\$ (2,225,000)</b>
<i>Common</i>						
BOP Misc.	\$ 17,000	\$ 30,000	\$ -	\$ -	\$ 47,000	\$ -
Roads	\$ 1,000	\$ 2,000	\$ -	\$ -	\$ 3,000	\$ -
All BOP Buildings	\$ 25,000	\$ 44,000	\$ -	\$ -	\$ 69,000	\$ -
Transformers & Foundation	\$ 5,000	\$ 9,000	\$ -	\$ -	\$ 14,000	\$ -
Mercury & Universal Waste Disposal	\$ -	\$ -	\$ -	\$ 20,000	\$ 20,000	\$ -
Concrete Removal, Crushing, & Disposal	\$ -	\$ -	\$ 2,000	\$ -	\$ 2,000	\$ -
Grading & Seeding	\$ -	\$ -	\$ -	\$ 229,000	\$ 229,000	\$ -
Debris	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (38,000)
<b>Subtotal</b>	<b>\$ 48,000</b>	<b>\$ 85,000</b>	<b>\$ 2,000</b>	<b>\$ 249,000</b>	<b>\$ 384,000</b>	<b>\$ (38,000)</b>
<b>West Gardner Subtotal</b>	<b>\$ 696,000</b>	<b>\$ 1,224,000</b>	<b>\$ 105,000</b>	<b>\$ 400,000</b>	<b>\$ 2,425,000</b>	<b>\$ (2,263,000)</b>
<b>TOTAL DECOM COST (CREDIT)</b>					<b>\$ 2,425,000</b>	<b>\$ (2,263,000)</b>
<b>PROJECT INDIRECTS (5%)</b>					<b>\$ 121,000</b>	
<b>CONTINGENY (20%)</b>					<b>\$ 485,000</b>	
<b>TOTAL PROJECT COST (CREDIT)</b>					<b>\$ 3,031,000</b>	<b>\$ (2,263,000)</b>
<b>TOTAL NET PROJECT COST (CREDIT)</b>					<b>\$ 768,000</b>	

**Table A-8B**  
**West Gardener**  
**Retire In Place Cost Summary**

<b>Task</b>	<b>Cost</b>
Retire In Place	\$ 1,163,000
Transformer Oil Disposal	\$ 50,000
Mecury Waste Disposal	\$ 20,000
SUBTOTAL	\$ 1,233,000
CONTINGENCY (20%)	\$ 247,000.00
OWNERS INDIRECTS (5%)	\$ 62,000.00
TOTAL	\$ 1,542,000

**APPENDIX B - PLANT AERIALS**

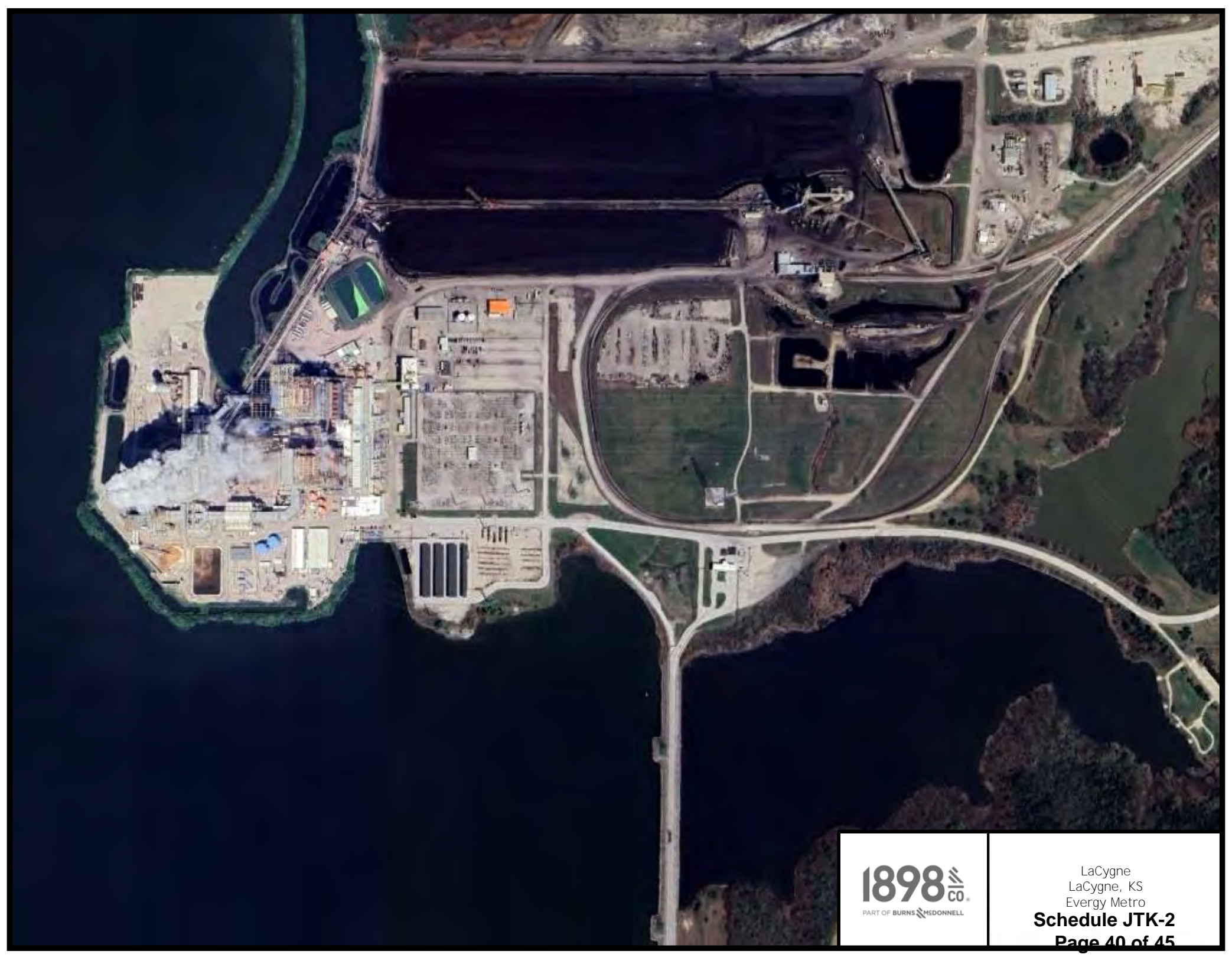
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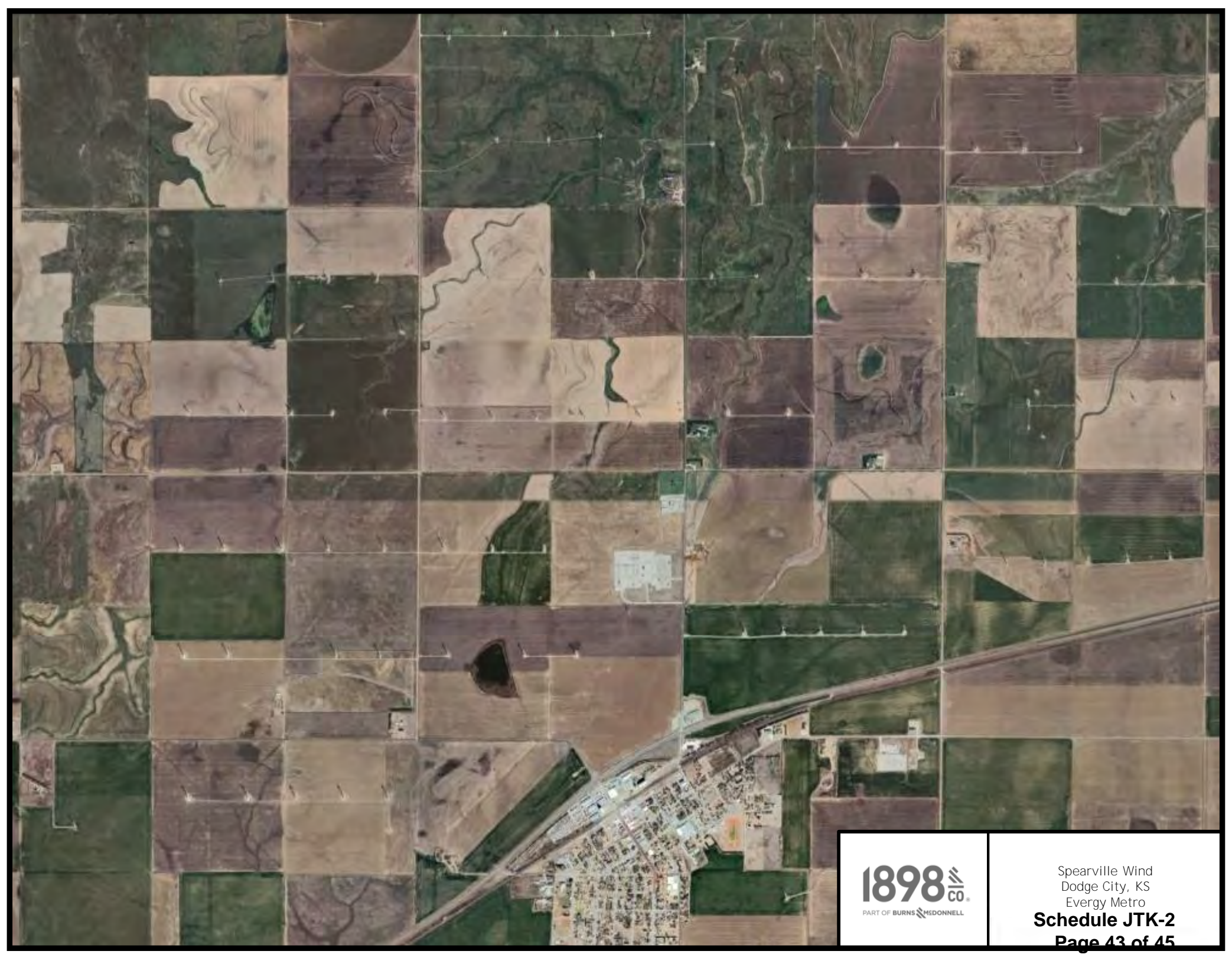
















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