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Issue: Project Overview; Competitive RFP Process; Project Economics; Purchase Agreement; Operating Plans
Witness: John Carlson
Type of Exhibit: Direct Testimony
Sponsoring Party: Evergy Missouri West
Case No.: EA-2023-0291
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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EA-2023-0291

DIRECT TESTIMONY

OF

JOHN CARLSON

ON BEHALF OF

EVERGY MISSOURI WEST

Kansas City, Missouri
November 2023

CONTENTS

DIRECT TESTIMONY

OF

JOHN CARLSON

Case No. EA-2023-0291

Q: Please state your name and business address.

A: My name is John R. Carlson. My business address is 1200 Main, Kansas City, Missouri 64105.

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

A: I am employed by Evergy Metro, Inc. and serve as Senior Manager – Market Operations for Evergy Metro, Inc. d/b/a as Evergy Missouri Metro ("Evergy Missouri Metro"), Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West"), Evergy Metro, Inc. d/b/a Evergy Kansas Metro ("Evergy Kansas Metro"), and Evergy Kansas Central, Inc. and Evergy South, Inc., collectively d/b/a as Evergy Kansas Central ("Evergy Kansas Central") the operating utilities of Evergy, Inc. ("Evergy").

Q: Who are you testifying for?

A: I am testifying on behalf of Evergy Missouri West ("EMW" or "Company").

Q: What are your responsibilities?

A: My primary responsibilities include oversight of the Company's Market Operations. This includes daily submittals to the Southwest Power Pool, Inc. ("SPP"), including generation and load and the procurement of natural gas for generation assets. I'm also responsible for the preparation and evaluation of requests for proposals for capacity and energy on behalf of the Company.

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

A: I received a Bachelor of Science degree in Architectural Engineering from the University of Kansas in 1997. In 2004, I received a Master of Business Administration from the University of Chicago Booth School of Business. I joined Kansas City Power & Light Company ("KCP&L") in 2006 as an Energy Consultant in the Delivery Division. My responsibilities included managing all facets of the customer relationship for KCP&L's large industrial customers and developing solutions that met the customer's needs, as well as demand response and energy efficiency opportunities. In 2007, I became Manager of Market Competitiveness where I was responsible for developing and implementing non-regulated products and services for residential, commercial and industrial customers. In 2010, I moved to the Supply Division at KCP&L and started work as an Originator of wholesale power transactions. Since 2017 I have been in market operations, and I currently manage the group responsible for submitting assets and load to the SPP daily and for procuring natural gas for Evergy's generation fleet.

Q: Have you previously testified in a proceeding at the Missouri Public Service Commission ("Commission" or "PSC") or before any other utility regulatory agency?

A: Yes, I have previously testified before the Missouri PSC.

Q: What is the purpose of your direct testimony?

A: The purpose of my direct testimony is to:

- provide a detailed overview of the Dogwood Energy Facility resource ("Dogwood," "Facility," or "Asset") of which EMW is

acquiring a 22.2% interest from Dogwood Energy, LLC ("Dogwood Energy").

- describe the competitive all-source capacity and energy Request for Proposal ("RFP") process and outcome that led to this project selection,
- detail the Project's economics and how they compared to alternatives considered in the RFP process and due diligence,
- review the transactions that will allow EMW to acquire its ownership interests in Dogwood, and
- describe the operations plan for the Asset.

Q: Are you sponsoring any schedules with your direct testimony?

A: Yes, I am sponsoring the following schedules:

Confidential Schedule JC-1 – RFP response #1
Confidential Schedule JC-2 – RFP response #2
Confidential Schedule JC-3 – RFP response #3
Confidential Schedule JC-4 – RFP response #4
Confidential Schedule JC-5 – RFP response #5
Confidential Schedule JC-6 – RFP response #6
Confidential Schedule JC-7 – RFP response #7
Confidential Schedule JC-8 – RFP response #8
Confidential Schedule JC-9 – Qualitative rankings of RFP responses
Confidential Schedule JC-10 – Dogwood Energy operating metrics
Schedule JC-11 – Dogwood transaction timeline
Confidential Schedule JC-12 – Dogwood Asset Purchase Agreement
Confidential Schedule JC-13 – Dogwood Disclosure Schedules
Confidential Schedule JC-14 – Dogwood Participation Agreement
Confidential Schedule JC-15 – Dogwood As-Built Drawings
Confidential Schedule JC-16 – Dogwood Restoration Plan

Q: Please describe your role specific to this Project.

A: In late 2022, EMW launched a Request for Proposal to seek out options available to replace its existing contract for capacity from Evergy Metro which was slated to expire in May 2024. My initial role was to lead the RFP and negotiations for capacity and energy for EMW, consistent with past capacity RFP processes. When Dogwood Energy submitted an equity ownership offer that was attractive to the Company and aligned with EMW's preferred plan, I then led the negotiations for acquiring an ownership share of the resource and the acquisition was evaluated through EMW's 2023 IRP process, as described by Company Witness Messamore.

Q: Please provide a summary of the key points for your testimony.

A: A summary of my testimony can be broken into three main areas:

I. Description of the Dogwood Energy Facility – Dogwood is a combined cycle generating asset, located in the EMW service territory, that has shown strong operational performance since it commenced operation in 2002. Dogwood is interconnected to two natural gas pipelines that provide flexibility in pricing and gas transport, and the unit is registered in the SPP market.

II. The Process Leading to the Dogwood Asset Purchase Agreement – In late 2022, EMW issued an RFP for capacity and energy. Both qualitative and quantitative analyses showed that the Dogwood Energy and Evergy Metro offers should be pursued further. Subsequent to the RFP, the 2023 IRP update chose Dogwood as part of the preferred plan. The capacity from Dogwood phases in from 2026 to 2031, as existing capacity contracts roll off, but all the energy from the Asset is immediately available. After completing internal and external project due

diligence, and negotiating with Dogwood Energy, an asset purchase agreement was agreed to on November 3, 2023.

III. The Operation, Maintenance and Management of Dogwood – Upon close of the Dogwood purchase, EMW will be one of seven owners of the Facility and will be represented on the management committee, a group comprised of one representative from each owner that is responsible for decisions around operating, maintaining and administering the Facility. Dogwood Power Management will remain as project manager, and will act on behalf of the owners to manage the agreements with the Facility's energy manager, with SPP for market participation, with Siemens Energy, Inc. ("Siemens") for the Major Maintenance Parts and Services Contract, with the North American Energy Service Company ("NAES") for the operations and maintenance ("O&M") agreement, with the Southern Star Central Gas Pipeline ("SSCG") and the Panhandle Eastern Pipeline ("PEPL") for gas transport, and with the City of Kansas City, Missouri for water.

I. Description of the Dogwood Energy Facility

Q: Provide a detailed overview of Dogwood.

A: Dogwood is a nominal 668 MW combined cycle generation facility located in Pleasant Hill, Cass County, Missouri about 30 miles southeast of Kansas City in EMW's service territory on approximately sixty-seven (67) acres. At SPP summer rating conditions, Dogwood is expected to generate 643 MW. The SPP accredited net capacity of a generating unit is determined by conducting generator capability tests as described in the SPP Planning Criteria.[1] The accredited capacity of a

[1] See https://spp.org/documents/69543/spp%20planning%20criteria%20v2.4.pdf

generating unit might be lower than its nominal MW rating due to ambient conditions, as is the case with Dogwood's summer rating being less than its nominal rating. Because EMW is a summer peaking utility, Dogwood's summer rating is most relevant to operations. The Company is purchasing a 22.2% interest in the Asset which equates to approximately 143 MW of SPP-accredited capacity.

Dogwood has been in commercial operation since 2002 and interconnects to SPP's transmission system at the Pleasant Hill 345 kV substation, which is owned by the Company. From a fuel supply perspective, Dogwood has firm gas transport with both the SSCG and the PEPL systems. This transport arrangement provides flexibility with natural gas procurement and reduces operational risk. A more detailed description of the Asset is contained in Dogwood Energy's response to EMW's 2022 RFP in Confidential Schedule JC-1. In addition, Confidential Schedule JC-15 includes as-built site and electrical one-line drawings of the Facility.

Q: What is a combined cycle generation facility?

A: Simply stated, a combined cycle generation facility is comprised of a natural gas-fired combustion turbine or turbines with equipment that captures the exhaust heat off the turbines and converts that heat to steam which is then used to fire a steam-fired turbine on the back end. Dogwood has two gas-fired turbines, each with a heat recovery steam generator ("HRSG") that generates steam from the exhaust heat. The steam from the two HRSGs is combined and feeds one steam turbine.

Combined cycle generation facilities tend to be more efficient than a standard combustion turbine because the waste heat from the turbine(s) is used to generate incremental electricity instead of being exhausted to the atmosphere.

Q: How has Dogwood operated since becoming commercially operational in 2002?

A: Dogwood has operated continuously and successfully since 2002. The performance of power plants is often measured by their net capacity factor ("NCF") which is the ratio of the number of megawatt-hours ("MWhs") produced versus the theoretical maximum number of MWhs produced. For instance, if a 100 MW nameplate capacity generator were to run for all 8,760 hours of the year at full nameplate capacity, it would produce 876,000 MWhs for the year. This would represent the denominator in the net capacity factor equation. If the generator produced 400,000 MWh for the year, the NCF would be 400,000 MWh/876,000 MWh or 45.66%.

Over the past five years ending in 2022, Dogwood has successfully operated and met its obligations when dispatched in the SPP. Dogwood's average NCF for this period is 35.7%. By comparison, the current EMW combustion turbine fleet had an average NCF over the last five years of 2.8%, with the highest year being 2022 when the average NCF was 5.5%. While EMW's turbine fleet is comprised of peaking units with higher heat rates, designed to operate during the peak hours of the year, the NCF comparison is valid since Dogwood would be added to the fleet and would operate more hours at a lower heat rate than EMW's existing combustion turbines.

A generating plant's average heat rate is a measure of efficiency in converting fuel input to electric energy output using the ratio of British thermal unit ("Btu") heat input to kilowatt-hour ("kWh") output. Dogwood's average heat rate from 2018-2022 was 7,725 Btu/kWh. With a continued focus on efficiency at the Facility, over the last two years Dogwood had heat rate values even lower at around 7,600 Btu/kWh. By comparison, the average heat rate for the EMW combustion turbine fleet in 2022 was approximately 14,000 Btu/kWh.

As SPP continues to experience the variability of renewable generation, the availability and reliability of fossil generation units is important. Dogwood's five-year average equivalent availability factor ("EAF") and start reliability were 83.2% and 97.1%, respectively. EAF is a ratio of the hours when a plant is available, subtracting derate hours, to the total hours for the period. The higher the EAF number, the more a plant is available to the SPP market. Additional historical operational performance metrics for the Facility can be found in Confidential Schedule JC-10.

These performance metrics speak to Dogwood's value as a market participant in the SPP Integrated Marketplace which consists of day-ahead, real-time, and ancillary services electricity markets. As more baseload fossil fuel generation is retired and more renewable generation is brought online, there will be an increased need for resources to provide generation when the wind does not blow or the sun does not shine. Dogwood's current average NCF is higher than EMW's current fleet of natural gas generation. This indicates that Dogwood is more attractive to the market than other EMW units because it is dispatched more

frequently. As more baseload thermal generation is retired in SPP, it is reasonable to expect that the Asset's NCF will increase. From a heat rate perspective, Dogwood is more efficient than the EMW fleet which means its cost to generate on a $/MWh basis is lower and thus is more attractive to the market.

In summary, Dogwood is available when needed (EAF), has been dispatched more than EMW's natural gas fleet (NCF), and operates efficiently when dispatched (heat rate). As the SPP market continues to change, the Company expects that Dogwood will provide value to its customers.

II. The Process Leading to the Dogwood Asset Purchase Agreement

Q: What process did EMW pursue to identify energy resources to serve the needs of its customers?

A: In August 2022, EMW initiated a competitive RFP process for capacity and energy to replace its existing capacity contract with Evergy Metro which was slated to expire in May 2024. While the focus was on capacity and energy, the Company entertained proposals offering capacity only, energy only, as well as equity offers. The RFP requested up to 350 MW of capacity and energy for up to a 20-year term starting June 1, 2024. Responses were received from an existing wind farm currently operating in the SPP, from a demand response aggregator, from a solar and diesel generator aggregator, from coal-fired power plants, and from natural gas combined cycle units. A timeline of the 2022 RFP, along with other milestones for the Dogwood asset purchase, is included as Schedule JC-11.

Q: How was this RFP administered and distributed?

A: The RFP was issued to the public via the North American Energy Markets Association ("NAEMA"), a trade group representing entities involved in the buying and selling (marketing) of energy or in providing services to the energy industry. NAEMA has over 190 members with operations in 48 states and numerous Canadian provinces. The RFP followed the schedule shown below, with contract negotiations to occur post bidder selection.

Milestone	Completed by Date
RFP Issued	August 15, 2022
Notice of Intent to Bid	August 26, 2022
Proposal Responses Due	September 16, 2022
Bidder Selection	November 1, 2022

Q: Please describe the responses to the RFP.

A: EMW received interest from nine potential bidders and ultimately received responses from eight bidders, some with multiple options. The responses included: (1) a demand response aggregator with limited current experience in SPP; (2) an existing natural gas-fired combined-cycle purchased power agreement ("PPA"); (3) an existing natural gas-fired combined-cycle equity ownership option; (4) two early-stage development wind facilities; (5) a coal-based power plant PPA; (6) a system-based power PPA (with system capacity and energy sourced from the combined generation fleet of the bidder); (7) a coal-based power plant equity ownership option; (8) a distributed renewable option; (9) a co-developed solar option, and (10) a distributed diesel generation option.

Regarding the parameters of the RFP, the responses were at capacity levels ranging from 20 MW to 300 MW, depending on the technology and potential SPP

capacity accreditation. A number of the respondents were able to meet EMW's requested June 1, 2024 start time, with the early-stage wind projects proposing later start dates. Confidential Schedules JC-1 to JC-8 contain all RFP responses.

Q: How did Evergy Missouri West evaluate the RFP responses?

A: EMW evaluated the RFP responses from both qualitative and quantitative perspectives. Qualitatively speaking, EMW ranked all responses based on the following factors: capacity price, potential energy hedge value, energy value, SPP capacity accreditation risk, transmission service risk, basis/congestion risk, and potential counterparty/asset risk. Each factor was assigned a percentage weighting and each offer was ranked on each factor on a scale from 0 to 4, with four being the highest. A composite score was calculated using the rankings and the weightings for each factor. See Confidential Schedule JC-9.

In addition to the qualitative analysis, all options were analyzed quantitatively (based on net present value of revenue requirement) in the 2022 IRP model, as described by Company Witness Messamore. The qualitative and quantitative analyses showed that the Dogwood Energy and Evergy Metro offers were the best options to pursue further.

Q: What were the next steps after a short list was identified?

A: The capacity need of EMW starting June 1, 2024 is greater than the size of Dogwood Energy's equity offer. Therefore, the Company decided to begin negotiations with Dogwood Energy, negotiate a 5-year capacity and energy contract with Evergy Metro, and continue looking at other offers from the RFP to fill EMW's capacity need.

Q: How is the equity offer from Dogwood Energy different from the capacity and energy offers from the other respondents?

A: An equity offer differs in multiple ways from a capacity and energy offer. First, the equity offer provides an ownership percentage in the plant whereas the capacity and energy offer provides a portion of the capacity and energy from a unit or system for a defined period of time. As an owner, a market participant would receive its ownership percentage of market revenues and be involved in the decision-making at the Facility. While the capacity and energy purchase power agreement would provide energy at a particular price, that price might not be attractive relative to the market.

Second, the equity offer provides long-term stability from a capacity perspective. The SPP market is becoming more capacity constrained with baseload generation retirements and with capacity accreditation changes in SPP. Reserve margin increases and reserve margin requirements for the winter season, performance-based accreditation, and effective load-carrying capability changes (essentially performance-based accreditation for renewable resources) all impact capacity accreditation. Other market participants in SPP, like EMW, are analyzing their capacity positions and trying to determine the best path forward in a market with multiple moving parts, with some holding on to excess capacity and the majority searching the market for capacity. Having long-term capacity in place reduces the risk of unknown changes in SPP's future capacity accreditation process.

Q: Why was only 143 MW of Dogwood's capacity considered?

A: At the time of its response to the EMW RFP, Dogwood Energy ** [redacted] **. Dogwood Energy offered a 22.2% equity position in the Asset, approximately 143 MW, as part of its RFP response. The Company asked if Dogwood Energy would be willing to ** [redacted] **, but ** [redacted] **.

Q: How did this Project rank when looking at the balance of costs and other factors used to evaluate the RFP?

A: Dogwood ranked high on the qualitative and quantitative analysis. The ** [redacted] ** offers were ranked higher than the Dogwood Energy offer but, as noted above, multiple capacity options are needed to fill EMWs short-term and long-term capacity needs. This is discussed more in Company Witness Messamore's Direct Testimony. Dogwood is valuable from an energy cost and hedge perspective, as well as from a capacity accreditation, transmission service, transmission congestion, and counterparty risk perspective. While the ** [redacted] ** offers ranked slightly higher in the qualitative, Dogwood Energy's equity offer was more attractive from a quantitative perspective, particularly in the longer-term.

Q: Was Dogwood identified as a preferred resource to meet customer needs in the Company's IRP analysis?

A: Yes. The Company's Preferred Plan from its 2023 IRP Annual Update (filed June 15, 2023) consistently chose Dogwood along with a mix of solar, wind and natural gas resources to meet EMW customer needs. Company Witness Messamore addresses this further in her testimony.

Q: How was the value of the Dogwood Energy offer determined?

A: The valuation process began when Dogwood Energy responded to EMW's RFP for capacity and energy with an equity ownership offer in the Facility. Company Witness Messamore describes in detail in her direct testimony how Dogwood meets the customer needs identified with EMW's most recent IRP.

From a quantitative perspective, the Dogwood Energy offer has a net present value of revenue requirement of **[redacted]**. Additionally, there will be incremental benefits to EMW customers from energy sales in the SPP wholesale electricity markets.

Qualitatively, Dogwood provides significant benefits to EMW customers. The Asset is a low-cost natural gas option in a relatively low-priced natural gas market and is in EMW's legacy balancing authority area. Experience procuring transmission service in SPP has shown that having a generator closer to load can reduce the SPP transmission service upgrade expenses and reduce SPP transmission congestion risk relative to other options. While EMW's generation is mostly natural gas-fired like the Dogwood plant, this Asset would provide an energy hedge from a reliability and capacity factor perspective, as described by Company

Witness Messamore in her direct testimony. Its low heat rate and firm natural gas transportation provide an attractive hedge to EMW's existing operations.

Moreover, the fact that Dogwood is served from both SSCG and PEPL provides additional benefits beyond firm gas transportation. First, pipelines, like power plants, require maintenance. Service from SSCG and PEPL allows flexibility to flow natural gas when one pipeline is in outage for maintenance. Second, from a pricing perspective, there can be a differential between SSCG and PEPL, so being served from both allows for potential pricing arbitrage. Third, during the winter season pipelines can limit the hourly gas flow rates when retail demand is high. PEPL's ratable flow rate is less limiting than SSCG's, so having this alternative option provides more flexibility in the winter. Lastly, SSCG does not have any daily imbalance penalties whereas PEPL does. An imbalance penalty would apply, for example, if Evergy nominated 100 MMBtus of gas and actually burned anything less or more than 100 MMBtus.

Q: Please describe the expected schedule for EMW to receive the capacity and energy benefits from Dogwood.

A: The capacity from the Asset will be available to EMW on a phased-in schedule starting June 1, 2026. The phase-in is necessary due to existing capacity agreements of Dogwood Energy. By January 1, 2031, all the capacity will be available to EMW.

Upon the closing of the transaction, a portion of these capacity agreements will be assigned to EMW, consistent with the MWs purchased by EMW. The revenues from those capacity agreements will belong to EMW. The table below

shows the capacity phase-in and associated capacity agreement revenue phase-out:

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While the capacity isn't available until June of 2026, the energy from the Asset will be immediately available.

Q: What is the purchase price and plans for financing the purchase and operation of the Asset?

A: The purchase price for Evergy's 22.2% percent ownership share of Dogwood is $60,775,000. In addition, there is a payment-in-leu of taxes ("PILOT") prepayment of $975,000 and a working capital deposit of approximately $950,000. The total investment is $62,700,00 which the Company plans to finance through rate base at its authorized weighted average cost of capital ("WACC").

Q: What was the timeline of the commercial negotiations for Dogwood?

A: The negotiations for Dogwood commenced in November of 2022[2] when the Company set up a cross-functional team of colleagues to gain a more detailed understanding of the Project prior to signing an agreement with Dogwood Energy. This team included expertise from various parts of Evergy, including accounting,

[2] Schedule JC-11 shows a timeline of the Dogwood transaction.

compliance, environmental, finance, insurance, legal, operations, long-term planning, regulatory and tax.

Once the internal team was assembled, the Company implemented bi-weekly internal team meetings and bi-weekly meetings between the Company's and Dogwood Energy's project managers. The focus of the internal meetings was to have each functional area provide an update on their review of the information contained in the virtual data room set up by Dogwood Energy. All team members were expected to provide questions and submit data requests to Dogwood Energy to further the due diligence effort. The external meetings with Dogwood Energy personnel were designed to track due diligence progress, discuss questions and data needs, and determine if meetings were needed between Dogwood Energy and the Company to discuss issues in more depth.

From a timing perspective, a list of due diligence milestones was developed to ensure the project team was on task. The major milestones consisted of the following:

Task		Date Due
Finalize outside counsel		2/1/2023
Draft term sheet completed		2/15/2023
Hire engineering firm for operational due diligence		2/15/2023
"60-day" notice for CCN		3/20/2023
Final report from engineering firm		3/31/2023
Internal due diligence completed		4/14/2023
Contract negotiations start		4/17/2023
Agreement on transaction		11/3/2023

Concurrent with the internal effort, the Company had external due diligence performed by multiple entities. For project due diligence, the Company retained Black & Veatch Management Consulting LLC ("Black & Veatch"), a leading management consulting, engineering, procurement, and construction company with over 9.000 professionals in over 120 offices worldwide. They bring together more than 200 professionals, including experienced industry executives, senior analysts and technology experts from across the electric, water, oil, natural gas and technology industries. Engineering/technical due diligence associated with acquisitions is one of many focus areas of Black & Veatch, and they have past experience performing due diligence of Dogwood and broader experience with due diligence of combined cycle units in general. From a legal perspective, the Company retained Morgan, Lewis, & Bockius LLP ("Morgan Lewis"), one of the largest law firms in the US with over 2,200 lawyers and one of the most experienced and recognized firms in the regulated utility and electric power space (with over 100 lawyers specializing in energy transactional matters). The firm is one of a handful of well recognized "go to" law firms for clients, many of which are regulated public utilities, on purchases and sales of large-scale electric generation assets (including conventional power, such as coal and gas) as well as renewable energy generation facilities. Lastly, the Hunter Law Group, PA, was retained for their expertise in local real estate law.

Once the internal and external due diligence was completed, Dogwood Energy and the Company began negotiating the commercial and legal terms of an

Asset Purchase Agreement ("APA"), reaching final agreement on November 3, 2023.

Q: How has the acquisition of Dogwood been structured?

A: The acquisition of Dogwood is structured as an APA whereby EMW will purchase a 22.2% leasehold interest in the Dogwood asset from Dogwood Energy's current ownership share. The 22.2% sale represents approximately 66% of Dogwood Energy's existing ownership percentage in the Asset. See Confidential Schedule JC-12 for the Dogwood APA and Confidential Schedule JC-13 for the APA Disclosure Schedules.

A Chapter 100 Lease was arranged in 1999 by Cass County which issued taxable industrial revenue bonds to finance the construction of the Project. In 2012 Dogwood Energy acquired the outstanding bonds and from time to time has sold off interests in the Project.[3] Being a non-exempt entity, EMW chose to purchase a leasehold interest because the property tax benefit from this arrangement was projected to be ** [redacted] ** over the remaining term of the lease which ends December 1, 2027. At the end of the lease, EMW's interest will convert to a fee simple interest in the Asset, i.e., a full ownership stake in all real property at the site with no property tax benefits.

The APA was signed by Evergy Missouri West on November 3, 2023, with closing to occur upon satisfaction of certain conditions precedent listed in the APA

[3] March 29, 2012 to the Missouri Joint Municipal Electric Utility Commission
April 5, 2012 to the City of Independence
April 12, 2012 to Kansas Power Pool
December 12, 2012 to the Kansas City Board of Public Utilities
July 30, 2015 to the Kansas Power Pool
March 29, 2018 to the Kansas Municipal Energy Agency
May 31, 2018 to the Missouri Joint Municipal Electric Utility Commission

(Confidential Schedule JC-12), currently projected to be early June 2024. Company Witness Darrin Ives addresses two of these conditions in his direct testimony.

Q: What is the expected ownership structure of Dogwood following EMW's acquisition?

A: After EMW's purchase of the interest in Dogwood closes, there will be seven owners of the Asset: Dogwood Energy; Evergy Missouri West; the Unified Government of Wyandotte County, Kansas; the Missouri Joint Municipal Electric Utility Commission ("MJMEUC"); the City of Independence, Missouri; the Kansas Power Pool; and the Kansas Municipal Energy Agency. The pre- and post-ownership percentages are shown below.

**

[redacted]

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As referenced earlier in my testimony, Dogwood is **[redacted]**.

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III. The Operation, Maintenance, and Management of Dogwood

Q: With multiple owners, how are decisions made?

A: While DPM performs contracting services, the decision on whom to contract with comes from the Dogwood owners. As an owner of Dogwood, EMW will have representation on the Management Committee, a group comprised of a representative from each owner. As defined in the Participation Agreement, the Management Committee makes all decisions in respect of operating, maintaining, and administering the Facility. Section 3.2 of the Participation Agreement, shown in Confidential Schedule JC-14, describes how decisions are made by the management committee.

Q: Please describe the operating structure of Dogwood today and how it will change following EMW's acquisition?

A: The current manager of the Facility is Dogwood Power Management, LLC ("DPM"), a subsidiary of Dogwood Energy. DPM will remain in place, as will the Asset's current energy manager, Evergy Kansas Central ("EKC"), who has been the energy manager for over 15 years; the current O&M contractor, NAES; and the current turbine maintenance contractor, Siemens Energy, Inc. The only change to the current operating and management structure is the addition of EMW as an owner. The confidential chart below depicts the management of Dogwood, the principal parties associated with the operation of the Asset, and the major agreements between each entity.

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Q: Who are the principal parties that oversee the operation of Dogwood at the direction of its owners?

A: DPM provides overall asset management services under an agreement with the Asset owners. DPM acts as agent of the owners in contracting with the energy manager via the energy management agreement. In this role, EKC is responsible for submitting the asset to the SPP market on a daily basis and providing general market functions for the owners. This includes making necessary market registrations, submitting transmission service requests, procuring, and scheduling natural gas, hedging transmission congestion, developing market offer strategies, and providing market settlement services. DPM's market participant and interconnection agreements with the SPP formalize Dogwood as an asset

interconnected to the SPP system and DPM as the market participant for the Asset (with EKC acting as agent for DPM in the market).

From an O&M perspective, DPM has two agreements in place. First, the Major Maintenance Parts and Services Contract with Siemens ("Siemens LTSA") covers major maintenance parts and service, including planned outages. Unplanned outage work is included, but on a change order basis. Second, the O&M agreement with NAES is for day-to-day O&M, outage and budget planning, management of staff and facility, and support of energy billing.

Moving to natural gas, the interconnection and transport agreements with SSCG and PEPL are for interconnection to the respective pipelines and reservation of transport capacity on the pipelines for service to Dogwood. These are needed for natural gas supply to flow to the plant.

Lastly, there is a water supply agreement with the City of Kansas City, MO for process and potable water for the Facility. All these agreements are reviewed in more detail in Confidential Schedule CK-1 of Company Witness Klausner's direct testimony.

Q: Describe DPM's qualifications to provide asset management services to the owners.

A: DPM has served as the project management company on behalf of the owner/participants of Dogwood since 2012. They have a broad and deep expertise in the management of large natural gas combined-cycle facilities gained over 25 years of experience developing, building, owning, managing, and optimizing U.S. power generation assets. DPM is affiliated with Kelson Energy which presently

manages a portfolio of over 5,000 MW of gas combined-cycle assets. DPM draws on the expertise of its professional staff including business management, power engineering, energy management, regulatory compliance, environmental compliance, power market modeling, treasury, and accounting. Specific value-adding activities led by DPM include managing a major upgrade of the Facility's combustion turbines, negotiating favorable major equipment service agreements, implementing a novel approach to acquiring station electric service, managing and optimizing Dogwood's transition into the SPP Integrated Market and improving the Facility's ability to operate reliably during cold-weather conditions.

DPM's track record in providing such services to the owners of the Dogwood plant demonstrates that it is qualified to oversee the management of the Facility. The assessment of Dogwood's operations by Black & Veatch, as described in the direct testimony of Company Witness Klausner, confirms this.

Q: Describe NAES's qualifications to provide O&M services to the owners.

A: NAES is the power generation industry's largest independent services provider, dedicated to optimizing the performance of energy facilities worldwide and responsible for managing more than 50,000 MW of generation. The NAES family of companies, comprising 4,000+ team members, provides an unparalleled wealth of experience in operations, maintenance, fabrication, grid management, regulatory compliance, and technical support to build, operate and maintain both traditional and renewable resources.[4]

[4] https://www.naes.com/company/overview/

NAES currently has operations at over 170 power plants in North America, ranging from combined-cycle natural gas plants to wind farms. In addition to managing Dogwood Energy Facility on-site operations, NAES provides additional professional support on an as-needed basis in the areas of engineering, environmental compliance, safety and equipment monitoring and analysis.

Q: Please describe in more detail Evergy's pre-existing relationship with Dogwood and the role of EKC.

A: Evergy has much experience with Dogwood and has a strong understanding of its operations. EMW's sister company, EKC, currently manages the SPP market submittals for the Dogwood facility through an energy management agreement with DPM, the project manager of the Dogwood facility. EKC also procures natural gas for the Project on both the SSCG and PEPL pipelines.

Q: Are there any other terms of the transaction?

A: Yes. As part of the APA, EMW has put in place a representation and warranty insurance policy, a commonly used risk mitigation measure to provide certain protections for EMW resulting from potential breaches of the seller's representations and warranties under the APA. The policy was bound when the APA was signed and will be effective as of closing. The closing of the transaction is subject to certain conditions precedent, including receipt of antitrust clearance under the Hart-Scott-Rodino Antitrust Improvements Act, approval of the Federal Energy Regulatory Commission ("FERC") under section 203 of the Federal Power

Act, and approval to the satisfaction of the Company by this Commission of an Operating Certificate of Convenience and Necessity ("CCN").

Q: Has Dogwood been evaluated from a technical standpoint and what was its condition found to be?

A: As noted above, the Company engaged Black & Veatch to perform technical and environmental advisory services in support of a potential Asset purchase. The scope of services for the operational due diligence work included the following:

Task 1	Project Kick-off and Review of Materials
Task 2	Design Review
Task 3	Current Plant Condition and Performance Assessment
Task 4	O&M/Major Maintenance/Capital Expenditure Assessment
Task 5	Review of Contracts
Task 6	Environmental Permitting
Task 7	Review of Financial Model
Task 8	Reports and Documentation
Task 9	Site Visit

The Black & Veatch due diligence showed that Dogwood's design was reasonable and typical of those seen in similar facilities in the industry, with performance that is generally consistent with operating facilities of similar age and design. Further, the key agreements discussed previously are consistent with industry standards and meet the operational requirements of the Facility. Lastly, Dogwood's O&M plans and practices are reasonable and consistent with good utility practice.

The Company also contracted with Black & Veatch to perform an environmental phase 1 analysis of the Asset. The environmental phase 1 analysis showed there were no data gaps and no evidence of recognized environmental conditions (RECs) (the presence or likely presence of any hazardous substance or

petroleum products), controlled RECs (known contamination that is being controlled) or historical RECs (a release that has been assessed and is not subject to required controls). In addition, there were no recommendations for additional assessment. Both the operational due diligence and environmental phase 1 reports, are discussed in more detail and included as schedules (Confidential Schedules CK-1 and CK-2, respectively), in the testimony of Company Witness Klausner.

Q: Is Dogwood capable of performing utility service?

A: Yes. Dogwood was commissioned in 2002 and has a strong operational history in the SPP. See Confidential Schedule JC-10 for historic operational metrics.

One of the reasons this project was selected was the lack of risk versus other offerings received in the RFP process. Because Dogwood is an existing and operating electric generating plant, there are no risks related to permitting, supply chain, and construction.

To ensure the reliable and continuous operation of the Asset, the owners through DPM maintain multiple maintenance and service agreements. The Siemens LTSA provides services for program and non-program parts, including transportation to and from site and general services. Included in general services are planned outages with provision of all labor, supervision, technical assistance, reporting and administrative support, and remote monitoring. In addition to highlighted services of program and non-program parts, additional services include program management services with monthly reporting, rotor spindle exchange, performance upgrades, and outages.[5]

[5] More detail can be found in Confidential Schedule CK-1 from the testimony of Company Witness Klausner.

For the onsite pipeline facilities, the Pipeline Operations and Maintenance Agreement with Utility Safety and Design, Inc. ("USDI O&M") provides for day-to-day operations, maintenance and compliance associated with the pipeline facilities. All work is completed in accordance with applicable laws and the USDI O&M agreement. The O&M services include field monitoring; right-of-way surveillance and maintenance; public relations with landowners whose properties are encumbered by the pipeline facilities; performing preventative and routine facilities maintenance; maintenance and monitoring of cathodic protection and line locating; one-call response services; implementation of an emergency response plan; development of operating procedures, maintenance procedures and training procedures; obtaining all necessary permits; and providing all necessary reports to Dogwood Energy and the Management Committee.[6]

As with any operating asset, there is risk from a severe weather event, catastrophic equipment failure, or unforeseen operational issues. If one of those events were to occur, the Dogwood owners would rely on their combined experience owning generation resources, a robust property insurance program, service contracts including the Siemens LTSA and USDI O&M, and existing vendor relationships from NAES's ongoing management of O&M at the Facility. These risks exist with any operating generation asset.

[6] Ibid

Q: What transmission arrangements are needed to get Dogwood energy from its facility to EMW customers?

A: The Project is interconnected to the SPP transmission system via the 345kV Pleasant Hill substation owned by EMW. For EMW to have the Dogwood capacity counted toward its SPP capacity accreditation requirements, EMW will need to either have the capacity counted as deliverable capacity (subject to SPP rules) or make a network transmission service ("TSR") request with the SPP. This will occur commensurate with the capacity becoming available to EMW. With the Dogwood facility being located in EMW's service territory, the Company does not expect any problems with obtaining transmission service, should they need to go this route.

Q: What are the Company's plans for the continuation or restoration of service if Dogwood is affected by significant, unplanned outages?

A: Dogwood has demonstrated reliable and resilient performance as an SPP generating resource, capable of rapid start/stop cycles, executing between 100 and 200 starts per year in response to SPP's dispatch instructions. The Facility is staffed 24/7 by operators who are highly trained in the safe, reliable, and responsive operation of the Facility equipment, including activating specific cold-weather readiness plans. Over the last ten years the Dogwood owners have invested over $2 million in Facility cold-weather improvements and hardening to enable operations through extreme weather. Dogwood has dedicated communication links with the SPP dispatch center and the energy manager's redundant 24/7 desk that are both constantly monitoring the regional electricity grid. Each of the Facility's three generators is directly interconnected to the electrical transmission system at the

Evergy Pleasant Hill substation. Dogwood maintains service contracts with major service providers and has built strong relationships with local support contractors that can be called upon on short notice.

In addition, the Company and its co-owners have more than a century of experience in operating and maintaining electric generating facilities. This experience will be shared with NAES as outage causes are diagnosed, safe and effective restoration measures are implemented, and root causes are identified to increase reliability.[7] As an owner of Dogwood, EMW will actively participate in the Management Committee regarding all operating, maintenance, and administration decisions.

Q: Please summarize your testimony.

A: Through a rigorous process that included an RFP for capacity and energy, qualitative and quantitative analyses of RFP responses, and subsequent internal and external due diligence of Dogwood, the equity offer of Dogwood Energy was chosen to meet a portion of Evergy Missouri West's long-term capacity, as well as its energy needs. Dogwood is a well-managed electric generating unit that is operating efficiently with agreements in place to manage O&M, natural gas interconnection and transport, energy market interconnection and participation, and water supply. After closing, EMW will be one of seven owners and will have a voice in all decisions regarding Dogwood's operations, maintenance, and administration as a member of the Management Committee.

[7] See Confidential Schedule JC-16 for a more detailed description of Dogwood's plans for restoration of service after a significant or prolonged outage.

Q: Does that conclude your testimony?

A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Permission and Approval of a Certificate of Public Convenience	))))	Case No. EA-2023-0291

AFFIDAVIT OF JOHN R. CARLSON

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

John R. Carlson, being first duly sworn on his oath, states:

1. My name is John R. Carlson. I work in Kansas City, Missouri, and I am employed by Evergy Metro, Inc. as Senior Manager – Market Operations.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Evergy Missouri West consisting of thirty-one (31) 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.

John R. Carlson

Subscribed and sworn before me this 8th day of November 2023.

Notary Public

My commission expires: 4/26/2025

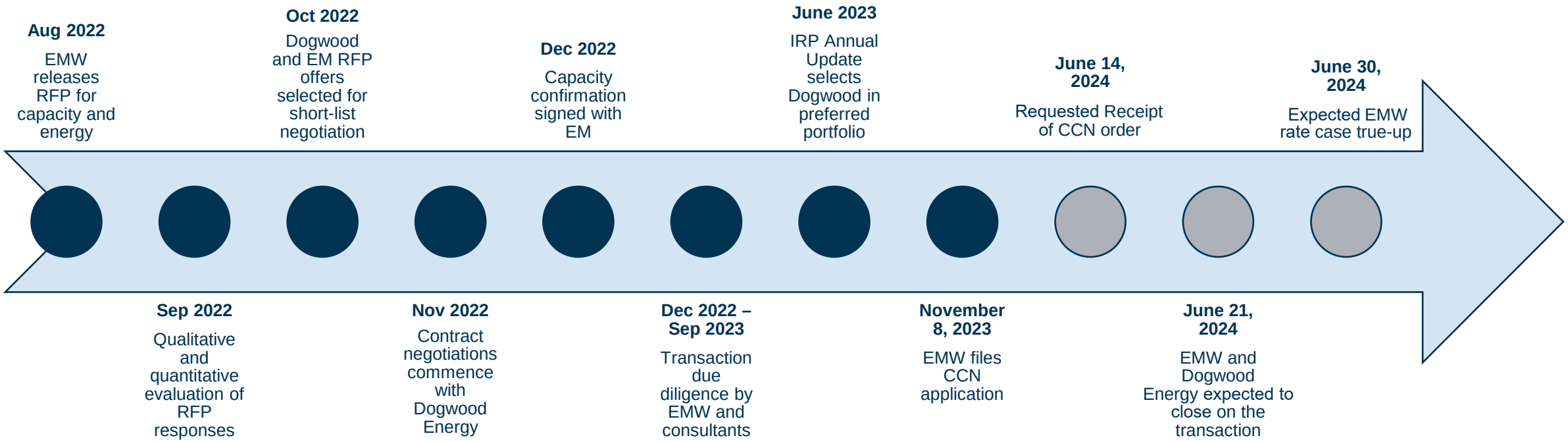
ANTHONY R. WESTENKIRCHNER
NOTARY PUBLIC - NOTARY SEAL
STATE OF MISSOURI
MY COMMISSION EXPIRES APRIL 26, 2025
PLATTE COUNTY
COMMISSION #17279952

SCHEDULES JC-1 thru JC-10
ARE CONFIDENTIAL IN THEIR ENTIRETY

THEY CONTAIN INFORMATION NOT AVAILABLE TO THE PUBLIC.

ORIGINALS FILED UNDER SEAL

Dogwood Transaction Timeline



SCHEDULES JC-12 thru JC-16 ARE CONFIDENTIAL IN THEIR ENTIRETY

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