BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Permission and Approval of a Certificate of Public Convenience and Necessity Authorizing It to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage Solar Generation Facilities in Kansas City, Missouri.	)))))))))	**Case No. EA-2022-0043**

STAFF RECOMMENDATION

COMES NOW the Staff of the Missouri Public Service Commission, by and through the undersigned counsel, and for its Staff Recommendation states as follows:

1. On December 14, 2021, Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West (collectively “Evergy”) filed an application with the Missouri Public Service Commission requesting that the Commission grant them a Certificate of Convenience and Necessity (CCN) to construct, install, own, operate, maintain and otherwise control and manage electrical solar production and related facilities in Kansas City, Missouri. The requested CCN would allow Evergy to build a new solar electrical production facility located at the Hawthorn Generating Station, which is in Evergy Missouri Metro’s service area.

2. Pursuant to the Commission’ s January 11, 2022, Order Directing Staff To File A Recommendation And Setting A Time For Responses, Staff files the attached memorandum outlining its analysis under the five factors laid out in *In re Tartan Energy*, Report and Order, 3 Mo.P.S.C. 3d 173, Case No. GA-94-127, 1994 WL 762882 (September 16, 1994).

3. In its Application, Evergy requests a CCN only for a portion of the proposed project. The portion of the facility being requested under this Application is the portion attributed to the Solar Subscription Pilot Rider. The Companies claim that other half of the project will be used to satisfy the investment requirements of 393.1665 RSMo.,[1] and a CCN for that half is not needed. The half of the project purported to be used to meet the Section 393.1655 requirement is estimated at ** [redacted] **, which is about ** [redacted] ** higher, for each company, than the minimum spend in the rule. Staff has concerns with the amount the Companies have exceeded the minimum spend requirement by without requesting that portion be included in the CCN. Should the Commission grant a CCN in this case, all portions of the facility that exceed the minimum spending requirements of 393.1665 RSMo should be included. Staff recommends the Commission approve the application, and order the following conditions.

i. All drawings in the applications indicate that they are "Preliminary – Not for Construction" or "For Permitting Purposes Only". Staff respectfully asks the Commission to condition the CCN on providing all as built drawings for the project.

ii. Staff recommends that the Commission order Evergy to file its overview of plans for restoration of safe and adequate service

[1] 393.1655 RSMo., reads in part, "An electrical corporation with less than one million but more than two-hundred thousand Missouri electric customers shall invest in the aggregate no less than four million dollars in utility-owned solar facilities located in Missouri or in an adjacent state during the period between August 28, 2018, and December 31, 2023."

in this case with consideration of the existing Hawthorn site facilities prior to Evergy exercising the authority sought.

iii. Staff recommends the Commission require Evergy to delineate all revenues, investments, and expenses associated with the Hawthorn solar subscription facility, and any future solar subscription facilities and record them into separate accounts or sub-accounts, separately by facility starting with the in-service date for the facility. This unique general ledger recording for these items shall be available for Staff's review during future Evergy rate cases.

iv. Staff will propose adjustments in all future Evergy rate cases to remove all solar subscription costs from the Plant In Service Accounting ("PISA") deferral and associated amortization expense

v. Staff recommends the Commission require Evergy to include the marketing and administrative costs incurred prior to in-service and all future marketing and administrative costs be included in a FERC expense sub-account for the solar subscription facility

vi. Staff recommends the Commission require Evergy to obtain all permits, regulatory approvals, and reviews required for this project and provide copies of the permits, approvals, and results of any regulatory reviews (i.e., documentation stating no permit or approval required) in this case docket in the Commission's Electronic Filing Information System (EFIS), including but not limited to those required for: wetland/surface water, floodplain disturbance/proximity to levee, stormwater, environmental, cultural, wildlife (e.g., migratory birds, threatened or endangered species, northern long-eared bats, etc.), State of Missouri (e.g., MODOT glare study), Federal (e.g., FAA), City of Kansas City, Missouri or Jackson County

vii. Staff recommends the Commission require Evergy to determine the allocation split for the project on a monthly basis using the monthly subscriptions in place and calculate any unsubscribed amounts as identified in the SSP tariff

viii. Staff recommends the Commission require the Company to calculate the costs of alternative generation or purchased power costs required if Hawthorn Unit #8 will need to be taken offline to complete the interconnection and that any liquidated damage amounts awarded to the Company by any contractors as a result of Hawthorn Unit #8 being offline per Exhibit H of the Engineering, Procurement, and Construction contract be used to offset the costs of alternative generation or purchased power costs resulting from Hawthorn Unit #8 being offline. In the event the calculation shows no increased costs for alternative generation or purchased power then any liquidated damages awarded should be used as a reduction to the total cost of the solar subscription facility.

ix. Staff recommends the Commission require the Company to comply with the “Pilot Evaluation” criteria that are identified in the SSP tariff

x. Staff recommends the Commission require the Company to demonstrate at least a 90% maintained subscription level of this initial solar subscription facility for a minimum of two years after being placed in-service before expanding the Solar Subscription program as identified in the SSP tariff

xi. Staff recommends the Commission require the Company, upon completion of the facility, to file the final plans, costs and project specifications, a final Hawthorn solar facility revenue requirement model with actual costs and a proposed operating and maintenance manual in this case docket in EFIS

xii. Staff recommends the Commission require the Company to include the market priced energy of the shareholder unsubscribed portion in their FAR filing and to file a separate tab in their FAC monthly reports showing the solar subscription monthly operating data, costs, and revenues as outlined in a stipulation and agreement from Case No. ER-2018-0145

xiii. Staff recommends that the Commission require the Company to submit reports in this case docket in EFIS detailing an evaluation of the program and lesson learned, filed quarterly until this facility is fully constructed and annually thereafter for the following four years and then thereafter every three years until this pilot facility is retired as outlined in a Stipulation and Agreement from Case No. ER-2018-0145

xiv. Staff recommends that if the interconnect shunt reactor will be required, that the costs for the shunt reactor and any related costs be assigned to and included in the total cost of the solar facility, so those costs will be recovered from solar subscribers.

xv. Staff recommends the Commission require that the final solar block cost should not exceed the maximum rate of $0.13880 per kWh as stated in the SSP tariff and that the Company immediately file a notice in this case docket in EFIS if they become aware of any significant cost increases or any cost increases that would result in a final facility total cost variance of 5% or more from the proposed facility total cost estimate of ** [redacted] ** as procurement and construction progresses.

WHEREFORE, Staff prays the Commission accepts its Staff Recommendation, orders Staff's fifteen conditions, and grants the application.

Respectfully submitted,

/s/ **Nicole Mers**

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CERTIFICATE OF SERVICE

I do hereby certify that a true and correct copy of the foregoing document has been hand-delivered, emailed or mailed, postage prepaid, to counsel for all parties this 10th day of March, 2022.

/s/ Nicole Mers

MEMORANDUM

TO: Missouri Public Service Commission Official Case File
File No. EA-2022-0043

FROM: Cedric E. Cunigan, PE, Professional Engineer,
Saeid R. Dinarloo, PhD, PE, Professional Engineer,
Shawn E. Lange, PE, Senior Professional Engineer
Engineering Analysis Department
Jared Giacone, Senior Utility Regulatory Auditor,
Auditing Department

/s/ *Claire M. Eubanks* / 03-10-2022 — Engineering Analysis Manager / Date
/s/ *Nicole Mers* / 03-10-2022 — Staff Counsel's Office / Date

SUBJECT: In the Matter of the Application of Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Permission and Approval of a Certificate of Public Convenience and Necessity Authorizing It to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage Solar Generation Facilities in Kansas City, Missouri

DATE: March 10, 2022

Overview of Project

Evergy Missouri Metro ("MO Metro") and Evergy Missouri West ("MO West"), (collectively "Evergy MO" or "the Companies") have requested a Certificate of Convenience and Necessity ("CCN") to construct, install, own, operate, maintain, and otherwise control and manage a solar generating asset and associated facilities, to be constructed at 8700 East Front Street, Kansas City, Missouri. The Application states that the proposed solar facility is located on approximately 63.7 acres of land owned by Evergy Metro.[1] The proposed facility is approximately 10 MW alternating current of single-axis ground-mounted, tracking photovoltaic ("PV") panels. The Companies are intending to interconnect the Hawthorn Generating Station ("HGS") with existing infrastructure at the Hawthorn power plant. The estimated cost of the project is approximately ** [redacted] . ** The project is proposed to be jointly owned by MO West, MO Metro, and Evergy Kansas Metro ("KS Metro"). The Companies plan to complete the project in the Fall of 2022. The Companies are only requesting a CCN for half of the plant attributed to

[1] In response to Staff Data Request No. 0023, the Companies clarified, the actual land will be closer to 70.4 acres.

the Solar Subscription Pilot Rider ("SSP"). MO Metro's and MO West's SSP tariffs were initially approved in Case Nos. ER-2018-0145 and ER-2018-0146. The SSP proposed to construct systems aggregating up to either two 2.5 MW systems, one in each company territory, or one 5 MW system. The Companies are proposing to use one site to meet the needs of the SSP, fulfill the investment requirements of Section 393.1665 RSMo. ("393.1665"), and provide a potential low-income solar option. The Company filed an application for the CCN in this case once the 90% threshold had been reached.

Staff Expert/Witness: Cedric E. Cunigan, PE

Interconnection

The approximately 10 MW alternating current of single-axis ground-mounted, tracking PV panels are interconnected at the existing main collection substation used by Hawthorn Power Plant Unit #8.

The Southwest Power Pool (SPP) accredited capacity of Hawthorn 8 varies by season. The summer accredited capacity is 77.2 MW and the winter emergency maximum capacity is 89 MW.[2] Evergy Metro has provided an Attestation of Existing Generator Interconnection Service Capacity ("Attestation") showing a Point of Interconnection capacity of 96.75 MW and is making 10 MW of Surplus Interconnection Service available at its point of interconnection.[3] In summary, there is sufficient interconnection capacity for the proposed project.

The addition of the 10 MW solar is expected to have no impact to the operation of Hawthorn 8. In the scenario where the combined output of Hawthorn 8 and the 10 MW solar project would exceed the 96.75 MW interconnect limit, the 10 MW solar project would be curtailed to lower the combined output to less than or equal to 96.75 MW.[4]

During the discovery process, Staff found that the SPP interconnect study listed a requirement that a shunt reactor would be required for the interconnection of the proposed Hawthorn solar facility. Staff discussed this requirement with the Company in a meeting on

[2] Evergy Response to Staff Data Request No. 0003.1.
[3] Evergy Response to Staff Data Request No. 0003 SPP Surplus Interconnection Study Page. ES-1.
[4] Evergy Response to Staff Data Request No. 0003.1.

March 1, 2022. ** [redacted] ** Staff recommends that if the shunt reactor will end up being required, that the costs for the shunt reactor and any related costs be assigned to and included in the total cost of the solar subscription facility, so those costs will be recovered from solar subscribers.

The project area is protected by a federally constructed flood risk management levee, which provides protection against a 1% annual chance or 100-year flood. There is no additional protection for a 500-year flood in the project area. There are minor Zone AH flood plains within the project area that are considered to be 1-3' ponding areas that will be filled in during construction to mitigate the flood risk.

Staff Expert/Witness: Shawn E. Lange, PE

Tie-in

** [redacted][5] [redacted][6] [redacted] **[7]

Staff Expert/Witness: Shawn E. Lange, PE

Application Requirements

20 CSR 4240-20.045 outlines the requirements for applications to the Commission for certificates of convenience and necessity pursuant to Section 393.170.1 and 393.170.2, RSMo. According to section (6) of the rule if the application is for authorization to

[5] Evergy Response to Staff Data Request No. 0015 q0015_conf_burns and mc closed book epc.pdf exhibit E pg. 2.
[6] Evergy Response to Staff Data Request No. 0015 q0015_conf_burns and mc closed book epc.pdf exhibit E pg. 1.
[7] Evergy Email to Staff subject Follow-up on Evergy Solar EA-2022-0043 sent on 3/2/2022.

construct an asset under Section 393.170.1, RSMo., the application shall also include additional documentation/information as follows:[8]

(A) A description of the proposed route or site of construction.

Evergy has provided an aerial view of their proposed site, including its route, in Schedule 1, Page 12 of its application. Therefore, the Company's application meets this requirement.

(B) A list of all electric, gas, and telephone conduit, wires, cables, and lines of regulated and nonregulated utilities, railroad tracks, and each underground facility, as defined in section 319.015, RSMo, which the proposed construction will cross.

Evergy has declared on page 7 of its application that "there are no gas, telephone or railroad facilities which the proposed construction will cross. The project will cross below Evergy owned overhead transmission and distribution lines via an underground duct bank as shown in Schedule 2 – Utility Crossing. The existing electrical utilities will not be impacted." Therefore, the Company's application meets this requirement.

(C) A description of the plans, specifications, and estimated costs for the complete scope of the construction project that also clearly identifies what will be the operational features of the asset once it is fully operational and used for service.

The proposed project specifications are presented in Schedule 3 of the application. Therefore, the Company's application meets this requirement.

(D) The projected beginning of construction date and the anticipated fully operational and used for service date of the asset.

In its application, Evergy has mentioned that "the Company plans to begin construction of the Project in 2022 and anticipates the Project will be fully operational by Fall 2022." Therefore, the Company's application meets this requirement.

[8] 20 CSR 4240-20.045(3)(C) states that "[i]f any of the items required under this rule are unavailable at the time the application is filed, the unavailable items may be filed prior to the granting of authority by the commission, or the commission may grant the certificate subject to the condition that the unavailable items be filed before the authority under the certificate is exercised."

(E) A description of any common plant to be included in the construction project.

Evergy has stated on page 7 of its application that "all of the Project will be common plant." Evergy has provided a description of the project. Therefore, the Company's application meets this requirement.

(F) Plans for financing the construction of the asset;

Evergy has provided its plans for financing the Project as "the Company intends to finance the Project using existing funds and indebtedness." Therefore, the Company's application meets this requirement.

(G) A description of how the proposed asset relates to the electric utility's adopted preferred plan under 4 CSR 240-22;

In response, Evergy has stated that this project, upon approval, would be among the Company's ongoing customer programs, which would be in compliance with the requirements of 393.1665. Evergy also does not intend to include this project as a part of the Company's demand- or supply-side resources per its IRP Preferred Plan. Therefore, the Company's application meets this requirement.

(H) An overview of the electric utility's plan for this project regarding competitive bidding, although competitive bidding is not required, for the design, engineering, procurement, construction management, and construction of the asset.

The Company has provided Schedule 4- Evergy Procurement Policy, which summarizes the Company's plan for competitive bidding. The Company witness Damon Rea has also provided further information about the bidding process on pages 6-7 of his direct testimony. Therefore, the Company's application meets this requirement.

(I) An overview of plans for operating and maintaining an asset.

The Company has filed Confidential Schedule 5– Hawthorn Solar O&M Plan along with its application that drafts operating procedure for the Project. Therefore, the Company's application meets this requirement.

(J) An overview of plans for restoration of safe and adequate service after significant, unplanned/forced outages of an asset.

The Company, on page 8 of its application, cited its application's Schedule 5– Hawthorn Solar O&M for information about its restoration plans. However, such information is not provided in Schedule 5– Hawthorn Solar O&M as presented on page 84 of the application file. Therefore, the Company is not in compliance with this requirement.

(K) An affidavit or other verified certification of compliance with the following notice requirements to landowners directly affected by electric transmission line routes or transmission substation locations proposed by the application. The proof of compliance shall include a list of all directly affected landowners to whom notice was sent.

Staff agrees with the Company that this section is not applicable because the Company will not build electric transmission line routes or transmission substation under this CCN. Therefore, the Company's application meets this requirement.

Except for the requirements of subsection (6)(J) of 20 CSR 4240-20.045, which requires the applicant to provide "[a]n overview of plans for restoration of safe and adequate service after significant, unplanned/forced outages of an asset", Evergy's application meets the remaining requirements of 20 CSR 4240-20.045. Therefore, after documenting its compliance with subsection (6)(J), Evergy's application should be deemed fully in compliance with all of the requirements of 20 CSR 4240-20.045(6). Staff has submitted Data Request No. 0036 to obtain the required information, in regard to subsection (6)(J), from Evergy. Staff expects to receive a response through Commission's Electronic Filing Information System ("EFIS") by March 24, 2022, and will subsequently provide an update to the Commission. Also, on March 7, 2022, Evergy provided a preliminary overview of the Company's restoration plan via Email. The Hawthorn site consists of various types of generating fuel types, including coal and natural gas. Staff is concerned that the restoration plan overview does not fully consider the Hawthorn site in its entirety. Therefore, Staff recommends that the Commission order Evergy to file its overview of plans for restoration of safe and adequate service in this case with consideration of the existing Hawthorn site facilities.

Staff Expert/Witness: Saeid R. Dindarloo, PhD, PE

Tartan Criteria

When making a determination of whether an applicant or project is convenient or necessary, the Commission has traditionally applied five criteria, commonly known as the Tartan factors, which are as follows:

a) Is the service needed?

b) Is the applicant qualified to provide the service?

c) Does the applicant have the financial ability to provide the service?

d) Is the applicant's proposal economically feasible?

e) Does the service promote the public interest?[9]

Staff Expert/Witness: Shawn E. Lange, PE

Whether there is a need for the facilities and service

In the context of the Tartan Criteria, Staff has interpreted "need" as a requirement for the applicant to demonstrate that there are benefits to the project that justify its cost. This case is unique in that MO West and MO Metro are seeking a CCN only for a portion of the proposed project. The Companies claim that half of the project will be used to satisfy the investment requirements of 393.1665 and a CCN for that half is not needed. The portion of the facility being requested under this Application is the portion attributed to the SSP. For the SSP portion, the Companies claim that there is a need for the project by stating that they have met the minimum subscription level of 90% as specified in the tariff.[10] In the Application, they state MO West has subscribers for 91.5% of 1,800 available shares and MO Metro has subscribers for 93% of 2,800 available shares as of October 11, 2021. This satisfies the subscription requirement prior to construction listed in MO West's and MO Metro's respective tariffs.

The Companies state that the other half of the project is being used to satisfy the requirements of 393.1665. The rule states in part "An electrical corporation with less than one

[9] In re Tartan Energy, Report and Order, 3 Mo.P.S.C. 3d 173, Case No. GA-94-127, 1994 WL 762882 (September 16, 1994).

[10] From P.S.C. MO. No. 1 Second Revised Sheet No. 109 and P.S.C. MO. No. 7 Fourth Revised Sheet No. 39 "Customers will be required to enroll for the Program in advance and each solar resource will be built when 90 percent of the proposed solar resource is committed."

million but more than two-hundred thousand Missouri electric customers shall invest in the aggregate no less than four million dollars in utility-owned solar facilities located in Missouri or in an adjacent state during the period between August 28, 2018, and December 31, 2023." This would apply to MO West and MO Metro each, meaning investments of at least $4 million per company to meet the rule requirement. The half of the project purported to be used to meet the 393.1655 requirement is estimated at ** [redacted] **, which is about ** [redacted] ** higher, for each company, than the minimum spend in the rule. Staff does not expect the company to spend exactly $4 million, but Staff has concerns with the amount the Companies have exceeded the minimum spend requirement without requesting that portion be included in the CCN. Should the Commission grant a CCN in this case, all portions of the facility that exceed the minimum spending requirements of 393.1665 should be included. The Companies have requested a portion of the project, approximately 1 MW, be used for a low-income solar program in their current rate cases in order to meet the requirements of Stipulation and Agreements in Case Nos. ER-2018-0145 and ER-2018-0146. The conditions relevant to this case are:

> KCP&L and GMO will propose a low-income component to the solar investment required under section 393.1665 RSMo. no later than their next rate case(s).[11]
>
> and
>
> The Company will consider building SB564-required solar at the same time/place with the understanding that that solar may be used for separate (low-income) projects per Non-Unanimous Stipulation and Agreement filed in these cases on September 19, 2018.[12]

The portion of the project proposed for the low-income solar program is combined with the portion to be used for compliance with 393.1665 in this application. However, in a presentation given to Staff, the Companies provided the following breakdown of the project ownership, purposes, and costs.

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[11] Case No ER-2018-0145 1[St] Non-Unanimous Partial Stipulation and Agreement, page 11.

[12] Case No ER-2018-0145,3[rd] Non-Unanimous Stipulation and Agreement Concerning Rate Design Issues, page 14.

**

[redacted] 13

The table shows that the Companies have marked low-income solar outside of the investment required by 393.1665, rather than making the low-income portion a part of the 393.1665 required investment as required in the 1st Stipulation and Agreement from ER-2018-0145. This increased the size of the project by roughly ** [redacted] ** more than would have been required to meet the needs of the SSP and the requirements of 393.1665. In addition, with the low-income solar being outside of the 393.1665 requirements, it should have been included in a CCN request. The information necessary to evaluate the full facility has been provided, except missing information listed in the application requirements section above, so the lack of inclusion of the low-income solar portion in the original application would not hinder the Commission from approving any portion of the facility should it so choose. However, the Commission should consider every portion of the facility beyond the 393.1665 required minimum spend as a part of this CCN application. This would include the portion allotted to the low-income program.

The proposed Hawthorn Solar Generating Station is not needed in the immediate future to meet the energy needs of the utility. In Evergy's most recent Renewable energy standard compliance plan ("Plan"), Evergy projects that current resources and customer generated Solar Renewable Energy Credits ("SRECs") were adequate to meet the Renewable Energy Standard through 2028, even though most customer generated SRECs will cease being transferred to the company after 2025. The Plan anticipates new company owned solar generation will be

[13] Table from response to Staff Data Request No. 0031.

built around 2028. The portion of the project attributed to 393.1665 compliance would contribute RECs to the Companies. However, the SSP portion of the project, if it is fully subscribed, would not contribute any RECs to the Companies. Only the unsubscribed portions of the resource would provide RECs to the Companies, which should be minimal. The SSP portion is needed to meet a desire of customers to have their energy supplied from renewable sources. The SSP is designed to have costs of the solar facilities and the program born primarily by the subscribers to the program.[14]

Staff agrees that Evergy has sufficiently demonstrated a need for the project, however, should the Commission grant the CCN, all portions of the facility that exceed the minimum spending requirements of 393.1665 should be included.

Staff Expert/Witness: Cedric E. Cunigan, PE

Whether the applicant is qualified to construct, install, own, operate, maintain and otherwise control and manage the facilities and provide the service?

Company witness Kevin Brannan's direct testimony addresses the issue of the Company's qualifications for this project. In summary, Evergy has argued that (i) its extensive experience owning and constructing generation of various types, including solar generation, and (ii) considering the fact that it has used a competitive bidding process to select a contractor with the knowledge and experience to construct the Project, demonstrate that Company is qualified for constructing, owning, operating, and maintaining the proposed Project.

Staff determined that Evergy has had a long history of generation, transmission, and distribution of electricity in Missouri through the construction, operation, and ownership of different power generation assets and methods including solar generation. Therefore, the Company is qualified to construct, install, own, operate, maintain and otherwise control and manage the proposed electrical solar production project and its related facilities.

Staff Expert/Witness: Saeid R. Dindarloo, PhD, PE

[14] Any unsubscribed portion of the program will be split 75% to 25% between the shareholders and ratepayers respectively. The Companies will also retain any RECs attributed to the unsubscribed portions.

Does the applicant have the financial ability to construct the project?

Evergy is a large utility with experience in financing construction projects. The Company is not proposing any new external funding for this project.

The total estimated cost of the project is approximately ** [redacted] ** with 50% of that total applied to the SSP portion of the project as part of this CCN. The Company is not seeking a CCN for the remaining 50% that they are choosing to install to meet 393.1665 requirements. Evergy stated in their application for Certificate of Convenience and Necessity that they intend to finance the project using existing funds and indebtedness.[15] Per Company witness Kevin Brannan's direct testimony, "The Project will be financed through a long-term utility financing structure, which consists of approximately 50 percent debt financing and 50 percent equity financing. During construction, the site will be financed through the Company's short-term borrowing mechanism. After in-service, the financing will be changed to long-term financing and incorporated in the long-term capital structure." Mr. Brannan's direct testimony goes on to state, "Evergy has the ability to finance the Project because it can access the equity and debt capital necessary to do so while maintaining strong financial metrics."

Staff Expert/Witness: Jared Giacone

Is the project economically feasible?

In his direct testimony, Company witness Kevin Brannan claims the project is economically feasible, "because the Project will generate electricity at a levelized cost consistent with the requirements outlined in the Schedule SSP tariff." The tariff estimated the Solar Block Subscription Charge to be $0.15367 per kWh made up of a Solar Block cost of $0.11567 per kWh (not to exceed $0.13880 per kWh) and a Services and Access charge of $0.038 per kWh. Based on the Company's estimates as provided in Staff Data Request No. 0007, the Levelized Cost of Energy ("LCOE") for the entire 10 MW facility is estimated to be $0.1293 which includes the Services and Access or "grid fee" charge of $0.038. That would estimate the fixed charge at $0.0913 per kWh. The Services and Access fee charge is subject to change as part of a general rate case as stated in the SSP tariff. It should be noted that the total Solar Block Subscription

[15] Evergy Missouri Metro and Evergy Missouri West Application For Certificate of Public Convenience and Necessity, Page 8, Paragraph 25.

Charge estimate of $0.1293 per kWh is less than the amount estimated in the tariff of $0.15367 per kWh. Also, the Solar Block fixed cost estimate for this solar facility of $0.0913 per kWh is less than the "not to exceed" amount of $0.13880 per kWh listed in the SSP tariff.

Staff considers this solar subscription project to be economically feasible based on:

- Economies of scale;
- The review of cost estimates provided by the Company; and
- Due to the number of customers who have expressed interest in the voluntary Solar Subscription Pilot Rider where the costs of the SSP facility will be paid for by the participants of the program.

Staff Expert/Witness: Jared Giacone

Economies of Scale

The Company is seeking to build a 10 MW facility where 5 MW will serve solar subscription customers as part of this CCN request. The Company is not seeking a CCN for the other 5 MW that they are choosing to install to meet 393.1665 requirements. There is benefit to designing, engineering, procuring and constructing the entire 10 MW facility all at one time. The Company will realize synergies and cost savings with a single system approach versus designing, engineering, procuring and constructing separate systems. For example, there is certain plant equipment investment required regardless of project size (like interconnection to the grid). That required plant can be spread out over the entire project to reduce the overall cost of each project as opposed to having to install the required plant for each system which would increase costs.

Staff Expert/Witness: Jared Giacone

Review of cost estimates

Staff reviewed the cost estimates for the entire 10 MW facility provided by the Company. The Company used the cost estimates to determine the estimated LCOE, and included estimates for substantial items such as:

- Operations & Maintenance ("O&M")
- Income taxes
- Interest
- Insurance
- Depreciation
- Land lease expense

Property tax expense was not included since Section 137.100(10) RSMo exempts state, county or local taxes for solar energy systems not held for resale.

Staff performed a general overview of the estimated costs. It should be noted that O&M includes vegetation management (mowing) for the site. Staff will review the final costs in the Company's next general rate case. This plant will not be in service prior to the completion of the Company's current general rate cases, Case Nos. ER-2022-0129 and ER-2022-0130.

Staff Expert/Witness: Jared Giacone

Subscriber Interest

One of the factors regarding economic feasibility of this project is that Solar Subscription customers voluntarily agree to pay for solar generation. The SSP tariff requires the Company to show commitment for 90% of the proposed solar resource capacity prior to construction. In its CCN application, Evergy indicated subscriber interest at approximately 93% of the fully subscribed level for Evergy Missouri Metro and 91.5% for Evergy Missouri West. Staff held a meeting with the Company on March 1, 2022 where Company representatives provided the following update on the number of solar subscribers:

> Evergy Missouri Metro: 100% fully subscribed, with a waiting list for 10% over the fully subscribed level.
>
> Evergy Missouri West: 100% fully subscribed, with a waiting list for 20% over the fully subscribed level.

It is also important to note the ownership arrangement of this solar subscription project. As stated on page 5 of Company witness Brannan's testimony, "The Company has determined an ownership split of 66% to Evergy Metro and 34% to Evergy Missouri West." Evergy Metro's service territory includes a Missouri service territory known as Evergy Missouri Metro and a Kansas service territory known as Evergy Kansas Metro. Since this solar subscription facility will also serve Evergy Kansas Metro customers, there will be investment, revenues, and expenses allocated to Evergy Kansas Metro. As outlined in the SSP tariff, the Company is required to perform a monthly cost allocation for any unsubscribed costs. Staff recommends these monthly cost allocation calculations be maintained and available for Staff review, including any allocation of unsubscribed costs to Evergy Kansas Metro customers.

Staff Expert/Witness: Jared Giacone

Staff Overview of Economic Feasibility

The following chart breaks down the estimated ** [redacted] ** cost of the entire 10 MW project (50% of which will be assigned to the solar subscription 5 MW portion):

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[redacted]		
[redacted]		
[redacted]	[redacted]	
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The Company issued a Request For Proposal (RFP) to six (6) solar development and contracting companies: Black and Veatch, Kiewit, MC Power, MDU Construction, SunVest, SolAmerica and Burns and McDonnell. The Company shortlisted Burns and McDonnell and SunVest due to the cost of their proposals. Ultimately, Evergy selected Burns and McDonnel due to their pricing, project experience and locality of their company.

According to the Company's response to Staff Data Request No. 0006, this project is expected to qualify for an investment tax credit equal to 26% if construction begins prior to December 31, 2022 and is placed in service prior to January 1, 2026. If construction would not begin until after December 31, 2022, the Company indicates the investment tax credit amount would be reduced to 22%.

The Company included the 26% investment tax credit in the solar generation charge for this facility, which reduces the overall levelized cost of energy for the entire 10 MW facility. The Company anticipates utilization of the tax credit around year 2025.

The SSP tariff is structured so that the subscribers pay for the cost of the system over its lifespan, using the levelized cost of the facility. If fully subscribed for the life of the system and if the cost estimates for items such as O&M were accurate when determining the LCOE then the subscribers in theory will pay for all of the capital and O&M costs for the solar facility. Even if the program were to remain fully subscribed for the life of the facility, there is a potential that there will be subsidization by non-subscribers due to the factors described below since the Company intends to include the capital costs for the solar subscription project in rate base, expenses associated with the project in revenue requirement, and use revenues collected from subscribers as an offset to the overall revenue requirement for base rates.

For example, if cost estimates for the solar subscription facility O&M or other expenses exceed the estimates included in establishing the fixed portion of the LCOE then non-subscribers could potentially subsidize the excess expenses since the fixed portion of the LCOE will not be changed after it is initially established unless an additional solar resource is added to the program as outlined in the SSP tariff. Conversely, if the Company is able to spend less on O&M or other expenses over the life of the system than the estimated amounts included in the LCOE then the subscribers will have overpaid and those excess revenues could benefit non-solar subscriber ratepayers. There are other items used in determining the LCOE such as return on equity, capital structure, and income taxes, that when changed in future rate cases, after the initial LCOE was established, could lead to non-subscribers picking up the difference in base rates during a general rate case.

The subsidization risk can be minimized if the Company tracks and records the plant assets, liabilities, depreciation, revenues, expenses, changes in return on equity, changes in capital structure, and changes in income taxes to isolate the solar subscription facility from base rates. To address these concerns, Staff is recommending that Evergy uniquely delineate all expenses (including O&M, depreciation, etc.), all capital related costs, revenue, and all other related items (including tax impact) for this and any future solar subscription facility. The recording in the general ledger should utilize separate accounts, sub-accounts, or other unique coding separately by facility so that these revenue requirement items may be reviewed by Staff in future rate cases to address the potential subsidization of the program by non-subscribers. Delineating the above expenses, investments, and revenues into separate accounts would allow Staff and other parties to have a full accounting of the revenue requirement impact of the solar subscription program to consider in future general rate proceedings. This could include changes to the Services and Access fee charge which according to the SSP tariff is subject to change as part of a general rate case.

In addition, the Company is also planning to use Plant In Service Accounting ("PISA") for this solar project. PISA is a deferral mechanism for plant investment where recovery on and of the investment can be sought in a future rate case. For this reason, Staff will propose adjustments in all future Evergy rate cases to remove all solar subscription costs from the PISA deferral and associated amortization expense.

Staff Expert/Witness: Jared Giacone

Review of other related case dockets

In Evergy's first solar CCN in Missouri, Case No. EA-2015-0256 for approximately a 3 MW solar facility located in Greenwood, Missouri, the Commission ordered Evergy to develop and file with the Commission a plan outlining its learning objectives for the pilot facility. In addition, the Commission ordered Evergy to file with the Commission an evaluation of that learning objective plan after the Greenwood facility operated for a period of five years or before the Company's application for a certificate of convenience and necessity for its next utility-scale solar facility. Evergy submitted its lessons learned in Case No. EA-2015-0256 on February 18,

2022. Staff reviewed the evaluation of the learning objectives and discussed the report in a meeting held with the Company on March 1st, 2022. Staff found the report to be very beneficial and a good learning tool for gaining knowledge of actual operating results for a solar facility located in the Company's service territory. For example, the actual generation and efficiency of the system, effects of snow and weather, actual O&M costs as well as design considerations to consider for future solar facilities in Missouri were all covered.

The proposal under this CCN would be Evergy's second utility-scale solar facility in Missouri and this system has uniquely different design considerations like being connected to the transmission side of the grid, using wildflower vegetation instead of rock aggregate in the solar array field and having a tracking mechanism for the solar panels versus a fixed-mount like the Greenwood system had. The tracking mechanism moving parts have the potential to lead to an increase in O&M and has been accounted for in the Company's initial cost estimates. However, it should be noted that the increase in maintenance cost is also expected to be offset by the additional generation efficiency that a tracking system provides. For these reasons, Staff would again recommend the Commission require the Company to file a similar evaluation report after this system has operated for a period of five years from the in-service date or before the Company's application for a CCN for its next utility-scale solar facility or before any expansion of this certificated system. An evaluation of this first solar subscription facility was also agreed to in a Stipulation & Agreement from the Company's ER-2018-0145 rate case, discussed in more detail later in this report.

The Company, in their current general rate cases ER-2022-0129 and ER-2022-0130, is proposing changes to the SSP tariff. Some of these proposed changes are related to:

- Pricing;
- Minimum subscription threshold requirements;
- Cost share for unsubscribed costs;
- Size and location requirements;
- Non-residential participation; and
- Program expansion

The Commission should be aware that the Company's proposal for this CCN is under the existing SSP tariff requirements and any future changes to the SSP tariff could affect the structure of this program as it has been submitted.

Finally, Staff reviewed the Stipulation and Agreement from the Company's general rate case, docket ER-2018-0145 regarding the Solar Subscription Rider. The following list shows the substantial items agreed to in that stipulation with the exception of those items subsequently incorporated into the SSP tariff already:

- The Company will seek competitive bids and retain all information related to the bidding process.
- Market priced energy of the shareholder unsubscribed portion will be included in the FAR filing.
- The Company will file a separate tab in their FAC monthly reports showing the solar subscription monthly operating data, costs, and revenues.
- The price for solar block charge will be based on costs of project selected through competitive RFP process.
- The Company shall submit reports detailing an evaluation of the program and lesson learned, filed quarterly until fully constructed and annually thereafter for the following four years and thereafter every three years until the pilot facility is retired.
- The Company will update the list of Frequently Asked Questions (FAQ) and answers on their website.

As discussed in prior sections of this memo, Staff reviewed the documentation provided by the Company for their RFP bid process for this solar facility. During the review of this application, Staff also reviewed the Company's FAQ on their website, referred to as "Solar Subscription Fact Sheet – Missouri Metro, Missouri West, Kansas Metro".

Staff is recommending the Commission require the Company to include the market priced energy of the shareholder unsubscribed portion in their FAR filing and to file a separate tab in their FAC monthly reports showing the solar subscription monthly operating data, costs, and revenues.

Staff is also recommending that the Commission require the Company to submit reports detailing an evaluation of the program and lesson learned, filed quarterly until this facility is fully constructed and annually thereafter for the following four years and then thereafter every three years until this pilot facility is retired.

Staff Expert/Witness: Jared Giacone

Does the proposed project promote the public interest?

As stated in the Commission Report and Order on Remand in the EA-2016-0358 case:

> The public interest is a matter of policy to be determined by the Commission. It is within the discretion of the Commission to determine when the evidence indicates the public interest would be served.[16]

Staff's public interest assessment in this case involves the evaluation of all other Tartan Criteria: need for the project, its economic feasibility, the qualifications and financial ability of the entity requesting to construct and operate a project. Staff considers the evaluation of the separate Tartan criteria and whether, on balance, the project promotes the public interest. Additionally, Staff reviews the project and whether there are any considerations not covered by the other Tartan Criteria that should be considered in the public interest assessment.

Except for the requirements of subsection (6)(J) of 20 CSR 4240-20.045, which requires the applicant to provide "[a]n overview of plans for restoration of safe and adequate service after significant, unplanned/forced outages of an asset.", Evergy's application meets the remaining requirements of CSR 4240-20.045.

The Tartan criteria of qualification and financial ability have been met. Staff witness Saeid R. Dindarloo, PhD, PE concludes that Evergy Missouri Metro, Evergy Missouri West, and Evergy Kansas Central are qualified to own, operate, control, and manage the facilities and provide the service and Staff witness Jared Giacone concludes that Evergy Missouri Metro, Evergy Missouri West and Evergy Kansas Central have the financial ability to construct the project. Staff witness Jared Giacone concludes the project is economically feasible. Staff witness Cedric E. Cunigan, PE concludes that Evergy has sufficiently demonstrated a need for the project, however, should the Commission grant the CCN, all portions of the facility that exceed the minimum spending requirements of 393.1665 should be included.

Additionally, Staff reviewed all public comments that were tied to the current case. There are currently zero public comments for EA-2022-0043.

Staff Expert/Witness: Shawn E. Lange, PE

[16] EA-2016-0358 Report and Order on Remand Page 45.

In-service Testing:

In-service criteria are a set of operational tests or operational requirements developed by the Staff to determine whether a new unit is "fully operational and used for service." The phrase "fully operational and used for service" comes from Section 393.135, RSMo. 2000, a statute that was adopted by Initiative, Proposition No. 1, on November 2, 1976. Section 393.135, RSMo. 2000, provides as follows:

> Any charge made or demanded by an electrical corporation for service, or in connection therewith, which is based on the costs of construction in progress upon any existing or new facility of the electrical corporation, or any other cost associated with owning, operating, maintaining, or financing any property before it is **fully operational and used for service**, is unjust and unreasonable, and is prohibited. [Emphasis added.]

Staff prefers to have in-service criteria that the parties can agree to prior to the case(s) in which the plant is put into rate base. In this case, Evergy Metro provided Staff with the in-service criteria they are proposing to use for the proposed Hawthorn project in the confidential response to Staff Data Request No. 0015. Staff is in agreement that the in-service criteria is appropriate and should be used in a future case to determine whether the project be considered fully operational and used for service. These criteria are listed in Confidential Attachment SEL-1. Staff is also including the capacity test procedure as Confidential Attachment SEL-2.

Staff Expert/Witness: Shawn E. Lange, PE

Recommendation:

Staff recommends the Commission grant Evergy Missouri Metro and Evergy Missouri West a CCN to construct, install, own, operate, maintain, and otherwise control and manage a solar generation facility subject to the following conditions:

1. All drawings in the applications indicate that they are “Preliminary – Not for Construction” or “For Permitting Purposes Only”. Staff respectfully asks the Commission to condition the CCN on providing all as built drawings for the project.

2. Staff recommends that the Commission order Evergy to file its overview of plans for restoration of safe and adequate service in this case with consideration of the existing Hawthorn site facilities prior to Evergy exercising the authority sought.

3. Staff recommends the Commission require Evergy to delineate all revenues, investments, and expenses associated with the Hawthorn solar subscription facility, and any future solar subscription facilities and record them into separate accounts or sub-accounts, separately by facility starting with the in-service date for the facility. This unique general ledger recording for these items shall be available for Staff's review during future Evergy rate cases.

4. Staff will propose adjustments in all future Evergy rate cases to remove all solar subscription costs from the Plant In Service Accounting ("PISA") deferral and associated amortization expense.

5. Staff recommends the Commission require Evergy to include the marketing and administrative costs incurred prior to in-service and all future marketing and administrative costs be included in a FERC expense sub-account for the solar subscription facility.

6. Staff recommends the Commission require Evergy to obtain all permits, regulatory approvals, and reviews required for this project and provide copies of the permits, approvals, and results of any regulatory reviews (i.e., documentation stating no permit or approval required) in this case docket in the EFIS, including but not limited to those required for: wetland/surface water, floodplain disturbance/proximity to levee, stormwater, environmental, cultural, wildlife (e.g., migratory birds, threatened or endangered species, northern long-eared bats, etc.), State of Missouri (e.g., MODOT glare study), Federal (e.g., FAA), City of Kansas City, Missouri or Jackson County.

7. Staff recommends the Commission require Evergy to determine the allocation split for the project on a monthly basis using the monthly subscriptions in place and calculate any unsubscribed amounts as identified in the SSP tariff.

8. Staff recommends the Commission require the Company to calculate the costs of alternative generation or purchased power costs required if Hawthorn Unit #8 will need to be taken offline to complete the interconnection and that any liquidated damage amounts awarded to the Company by any contractors as a result of Hawthorn Unit #8 being offline per Exhibit H of the Engineering, Procurement, and Construction contract be used to offset the costs of alternative generation or purchased power costs resulting from Hawthorn Unit #8 being offline. In the event the calculation shows no increased costs for alternative generation or purchased power then any liquidated damages awarded should be used as a reduction to the total cost of the solar subscription facility.
9. Staff recommends the Commission require the Company to comply with the "Pilot Evaluation" criteria that are identified in the SSP tariff.
10. Staff recommends the Commission require the Company to demonstrate at least a 90% maintained subscription level of this initial solar subscription facility for a minimum of two years after being placed in-service before expanding the Solar Subscription program as identified in the SSP tariff.
11. Staff recommends the Commission require the Company, upon completion of the facility, to file the final plans, costs and project specifications, a final Hawthorn solar facility revenue requirement model with actual costs and a proposed operating and maintenance manual in this case docket in EFIS.
12. Staff recommends the Commission require the Company to include the market priced energy of the shareholder unsubscribed portion in their FAR filing and to file a separate tab in their FAC monthly reports showing the solar subscription monthly operating data, costs, and revenues as outlined in a stipulation and agreement from Case No. ER-2018-0145.
13. Staff recommends that the Commission require the Company to submit reports in this case docket in EFIS detailing an evaluation of the program and lesson learned, filed

quarterly until this facility is fully constructed and annually thereafter for the following four years and then thereafter every three years until this pilot facility is retired as outlined in a Stipulation and Agreement from Case No. ER-2018-0145.

14. Staff recommends that if the interconnect shunt reactor will be required, that the costs for the shunt reactor and any related costs be assigned to and included in the total cost of the solar facility, so those costs will be recovered from solar subscribers.

15. Staff recommends the Commission require that the final solar block cost should not exceed the maximum rate of $0.13880 per kWh as stated in the SSP tariff and that the Company immediately file a notice in this case docket in EFIS if they become aware of any significant cost increases or any cost increases that would result in a final facility total cost variance of 5% or more from the proposed facility total cost estimate of ** [redacted] ** as procurement and construction progresses.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Permission and Approval of a Certificate of Public Convenience and Necessity Authorizing It to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage Solar Generation Facilities in Kansas City, Missouri	)	File No. EA-2022-0043

AFFIDAVIT OF SAEID R. DINDARLOO, PhD, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW SAEID R. DINDARLOO, PhD, PE and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Report* in memorandum form; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

S. Dindarloo

SAEID R. DINDARLOO, PhD, PE

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 10th day of March 2022.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2025
Commission Number: 12412070

D. Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Permission and Approval of a Certificate of Public Convenience and Necessity Authorizing It to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage Solar Generation Facilities in Kansas City, Missouri	)	File No. EA-2022-0043

AFFIDAVIT OF JARED GIACONE

STATE OF MISSOURI)
) ss.
COUNTY OF CASS)

COMES NOW JARED GIACONE and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Report* in memorandum form; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Jared Giacone

JARED GIACONE

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cass, State of Missouri, at my office in Belton, on this 10 day of March 2022.

DAVID L. SCOTT
NOTARY PUBLIC - NOTARY SEAL
STATE OF MISSOURI
MY COMMISSION EXPIRES SEPTEMBER 15, 2024
CASS COUNTY
COMMISSION #12413750

David L Scott

Notary Public David L Scott

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Permission and Approval of a Certificate of Public Convenience and Necessity Authorizing It to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage Solar Generation Facilities in Kansas City, Missouri	)	File No. EA-2022-0043

AFFIDAVIT OF SHAWN E. LANGE, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW SHAWN E. LANGE, PE and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Report* in memorandum form; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Shawn E. Lange
SHAWN E. LANGE, PE

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 10th day of March 2022.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2025
Commission Number: 12412070

D Suzie Mankin
Notary Public

EA-2022-0043

ATTACHMENT SEL-1 and SEL-2

HAVE BEEN DEEMED

CONFIDENTIAL

IN THEIR ENTIRETY