

APPLICATION

In accordance with Arizona Revised Statutes (A.R.S.) §§ 40-360.03 and 40-360.06 and Arizona Administrative Code R14-3-219, the Applicant provides the following information:

1. Name and address of the Applicant, or in the case of a joint project, the Applicants.

Name: Salt River Project Agricultural Improvement and Power District (SRP)
Address: 1500 North Mill Avenue
Tempe, AZ 85281-1298

2. Name, address and telephone number of a representative of the Applicant who has access to technical knowledge and background information concerning the application in question, and who will be available to answer questions or furnish additional information.

Name: Rick Hernandez
Power Delivery Project Manager
Address: PO Box 52025, PAB349
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3. State each date on which the Applicant has filed a ten-year plan in compliance with A.R.S. Section 40-360.02 and designate each such filing in which the facilities for which this Application is made were described. If they have not been previously described in a ten-year plan, state the reasons therefore.

In accordance with A.R.S. § 40-360.02, SRP has filed Ten-Year Plans annually with the Arizona Corporation Commission (ACC). South Mountain Transmission (SMT) Project (SMT Project or Project) was included in the most recent Ten-Year Plan SRP submitted to the ACC on January 29, 2024.

4. Description of the proposed facilities, including:

4.1 Description of electric generating plant.

Not Applicable.

4.2 Description of the proposed transmission lines.

4.2.1 General Description.

4.2.1.1 Nominal voltage for which the lines are designed.

The lines are designed for a nominal voltage of 230 kilovolt (kV) with potential to underbuild 69 kV on the same structure. However, the 69 kV lines are not part of this Application.

4.2.1.2 Description of proposed structures.

Generally, the Project proposes to use single shaft tubular steel structures (poles) configured to support the two double-circuit 230 kV transmission lines.

4.2.1.3 Description of proposed switchyards and substations.

The Applicant will construct a 500/230/69 kV substation (New Substation); however, the New Substation is not part of this Application.

4.2.1.4 Purpose for constructing proposed transmission lines.

There are three primary reasons SRP is proposing to construct this Project:

1. Increase customer load serving capability to support new development in and around the Laveen area and the South Mountain Tech Corridor in Phoenix, Arizona;
2. Develop a master transmission plan for the Laveen area; and
3. Strengthen the existing SRP electrical system by increasing the transmission system voltage support and resiliency.

Load Serving Capability

The Project will provide new transmission facilities needed to support growth and development along the Loop 202 Freeway (Loop 202) and throughout Laveen.

The PlanPHX 2025 General Plan (City of Phoenix General Plan) characterizes the area in Laveen Village near Loop 202 as a Primary Core, which is an area that can “support

a large concentration of employment and housing opportunities.” The City of Phoenix has identified areas west of Loop 202 as desirable locations in Laveen Village for major development including “the development of an industrial and tech park to accommodate warehouse and office uses to attract high-wage jobs in technology, bioscience, light manufacturing, finance and other office and industrial uses.” In addition to several retail and commercial developments announced along the east side of Loop 202, the area also currently leads the City of Phoenix in new housing permit activity.

Transmission Planning

SRP performed a Load Impact Study that identified limitations in the capacity of the existing 69 kV transmission system to serve existing customer load and future growth.

The existing electrical load near Loop 202 is served from the 69 kV transmission system out of the 69/12 kV SRP Cheatham Substation located on the southwest corner of Baseline Road and 57th Avenue, with support from the 69/12 kV SRP Irvin Substation located on the northeast corner of Dobbins Road and 47th Drive. While the area has been operating within the existing system capacity, the 69 kV transmission system does not have sufficient capacity to serve anticipated load growth in this area; as a result, SRP needs to site and construct additional transmission facilities to support the future growth within the Laveen area along the Loop 202.

Strengthen the SRP Electrical System

The SMT Project will also strengthen the existing SRP electrical system by increasing transmission system voltage support and system resiliency. Upon completion of the SMT Project, SRP will be able to avoid the need to upgrade the existing 69/12 kV substations in the area. The SMT Project will aid in avoiding short circuit issues on the SRP transmission system, voltage issues due to long 69 kV lines, and thermal overload issues under planned and unplanned outage conditions. As the SRP transmission system continues to grow, the SMT Project will also provide additional 230 kV and 500 kV transmission sources to the area. These new sources will be critical, as

it will allow SRP to serve new large loads while reducing the number of lines needed when compared to meeting the same loads via the 69 kV transmission system.

4.2.2 General Location.

4.2.2.1 Description of the geographic points between which the transmission line will run.

The proposed SMT lines are approximately two to three miles in length from the New Substation to an interconnection point on the existing Anderson – Orme 230 kV transmission line.

4.2.2.2 Straight-line distance between such geographic points.

The existing straight-line distance from the New Substation to the closest interconnection at the existing Anderson – Orme 230 kV transmission line is 1.6 miles.

4.2.2.3 Length of the transmission line for each alternative route.

For ease of description of the route options proposed in this Application, two Routing Areas, a South Routing Area and a North Routing Area were developed. See map of Routing Areas in the **Introduction (Figure 1)**.

The South Routing Area comprises route options that will extend from the New Substation that will be constructed on SRP owned property located west of the Loop 202 north to a point where the routes intersect with the Laveen Area Conveyance Channel (LACC). The North Routing Area comprises route options that extend north from the same points on the LACC to proposed interconnection points on the Anderson – Orme 230 kV transmission line.

The total length of the route options presented in the South Routing Area and North Routing Area range from approximately two to three miles in length from the New Substation to an interconnection at the existing Anderson – Orme 230 kV transmission line.

South Routing Area

- Route S1 is approximately 1.8 miles.
- Route S2 is approximately 1.6 miles.

- Route S3 is approximately 1.4 miles.
- Route S4 is approximately 1.3 miles.
- Route S5 is approximately 1.4 miles.
- Link Options: Each Link Option is approximately 0.12 miles.

North Routing Area

- Route N1 is approximately 1 mile.
- Route N2 is approximately 0.65 miles.
- Route N3 is approximately 0.6 miles.
- Route N4 is approximately 0.6 miles.

Routes with Link Options and Contingent Routes

- Preferred Route S3 to Segment H-I-K is approximately 1.5 miles.
- Contingent Preferred Route with Route S5 Segment H-J-K is approximately 1.4 miles.
- Contingent Preferred Route with Route S1 Segment A-E is approximately 1.8 miles.

4.2.3 Detailed Dimensions.

4.2.3.1 Nominal width of Right-of-Way (ROW) required.

100-foot ROW for each proposed double-circuit 230 kV transmission line within the requested 350-foot-wide corridor.

4.2.3.2 Nominal length of span.

The nominal length of span may vary from 200 to 900 feet.

4.2.3.3 Maximum height of supporting structures.

The nominal height of the proposed structures will be 100 to 185 feet. The maximum height of the proposed structures will not exceed 199 feet.

4.2.3.4 Minimum height of conductor above ground.

The minimum height of the 230 kV conductor above existing grade will be 25.5 feet. The average lowest height of 230 kV conductor will be approximately 50 feet.

4.2.4 *To the extent available, estimate costs of proposed transmission line and site, stated separately. (If Application contains alternative routes, furnish an estimate for each route and a brief description of the reasons for any variations in such estimates.)*

The costs related to designing, procuring materials and construction the proposed transmission lines are approximately \$4,000,000 per transmission line mile:

Route S1: \$7.2 million

Route S2: \$6.4 million

Route S3: \$5.6 million

Route S4: \$5.2 million

Route S5: \$5.6 million

Route N1: \$4.0 million

Route N2: \$2.6 million

Route N3: \$2.4 million

Route N4: \$2.4 million

Link Options: A Link Option could add an additional estimated cost of approximately \$500,000. However, actual costs would depend on how the Link Option connects segments to form a new route.

Given the variance in route options, estimated costs for transmission lines ROW are not available. On average, land acquisition costs for ROW range from \$10/SF to \$35/SF depending on the use of the property. Additional costs may be incurred for mitigation associated with route options.

4.2.5 *Description of the proposed route and substation locations.*

The proposed transmission lines will connect the existing Anderson – Orme 230 kV transmission line to the New Substation as shown in **Introduction (Figure 1)**.

As noted above, SRP created two Routing Areas to develop and describe the route options presented in this Application. The location of the proposed lines is shown in **Introduction (Figure 1)** and described below:

South Routing Area

- **Route S1:** starts at the northwest corner of the New Substation site, travels north along an irrigation channel to West Dobbins Road, then travels east along West Dobbins Road to South 63rd Avenue and travels north along South 63rd Avenue to West South Mountain Avenue. The route then goes east on West South

Mountain Avenue, north on the west side of Loop 202 until intersecting the LACC.

- **Route S2:** starts at the northeast corner of the New Substation site, runs north on South 63rd Avenue, then travels east on West South Mountain Avenue and travels north on the west side of Loop 202 until intersecting the LACC.
- **Route S3:** starts at the northeast corner of the New Substation site and runs north on the west side of Loop 202 until intersecting the LACC.
- **Route S4:** starts at the northeast corner of the New Substation site, immediately going east to cross Loop 202 along West Olney Road, then runs north on the east side of Loop 202 until intersecting the LACC.
- **Route S5:** This would be a second line option and would start at the northeast corner of the New Substation site and runs north on the west side of Loop 202 until intersecting the LACC.

Link Options

To provide flexibility for multiple route combinations, Link Options are included in this Application. Link Options denote where a route segment can connect to a different route segment. Link Options allow different combinations of route segments to form a new route option. For ease of description, Nodes are also included in this Application to delineate the path a route option will follow. **Figure 1** shows the Nodes along with the route options and Link Options.

Specifically, the Link Option on West Dobbins Road (Segments E-F-G) would allow Route S1 and Route S2 to connect and form different routes with Route S3, Route S4, or Route S5. There is also a Link Option that runs along West South Mountain Avenue (Segment H-I) and connects Route S1, Route S2 and Route S3 to Route S4 or Route S5.

North Routing Area

- **Route N1:** runs north on the west side of Loop 202, past West Baseline Road, then turns east on West Vineyard Road to connect to the Anderson – Orme 230 kV transmission line.
- **Route N2:** runs north on the west side of Loop 202, past West Baseline Road, then turns east just north of the Laveen Spectrum

shopping center, to connect to the Anderson – Orme 230 kV transmission line.

- **Route N3:** travels east on the LACC, then travels north on the western side of Cheatham Substation to connect to the Anderson – Orme 230 kV transmission line.
- **Route N4:** travels east on the LACC, then travels north on the eastern side of Cheatham Substation to connect to the Anderson – Orme 230 kV transmission line.

Preferred and Alternative Routes identified below:

South Routing Area

Preferred Routes:

S2

S3 to Segment H-I-K

Alternative Routes:

S1

S5

North Routing Area

Preferred Routes:

N2

N3

Alternative Routes:

N1

N4

Contingent Preferred Segments:

S5 Segment H-J-K

The Applicant is currently working with ADOT to study the feasibility of a route or route segments on the east side of Loop 202. If ultimately the studies deem the east side of Loop 202 incompatible with transmission infrastructure, then Route S4 and Segments H-I-K would be infeasible. Therefore, the Applicant is requesting Contingent Preferred Segment Route S5 Segment H-J-K displayed on **Figure 2** be approved.

S1 Segment A-E

Through stakeholder outreach, the Applicant heard that the Project could better support future planned development if it is close to parcels south of West Dobbins Road and west of South 63rd Avenue (See **Ex J-6**). Therefore, the Applicant is requesting Contingent

Preferred Segment Route S1 Segment A-E displayed on **Figure 2** be approved.

4.2.6 Land Ownership.

The proposed transmission lines will be on a combination of private and public lands and may cross State of Arizona land, which is ADOT land along the Loop 202, United States (US) easements or lands under the jurisdiction of Bureau of Reclamation (BOR) that are maintained by SRP. SRP owns property directly north of the New Substation on the west side of the Loop 202, as shown on **Figure A-2** in **Exhibit A**. The remaining portions of the lines will be within an SRP easement on private land and by permit for the portions located on public lands. SRP will coordinate with BOR if US property rights are impacted by the Project.

5. Jurisdiction.

5.1 Areas of jurisdiction (as defined in A.R.S. Section 40-360) affected by this route.

The Project will be constructed on private and public lands within the City of Phoenix and Maricopa County and State of Arizona land which is ADOT land along the Loop 202.

5.2 Designation for proposed sites or routes, if any, which are contrary to the zoning ordinances or master plans of affected areas of jurisdiction.

Not Applicable.

6. Description of the environmental studies the Applicant has performed or intends to perform.

KP Environmental, Inc. (KPE) has conducted or reviewed environmental studies, including field studies and routing analyses, to support this Application. Potential environmental effects of construction and implementation of the Project are included in the exhibits to this Application.

7. Rationale for route selection/preference.

The Project described in this Application was developed and is supported by system planning, customer needs and load growth, and environmental studies. Advantages of this Project include the following:

- All route options presented in the South Routing Area and the North Routing Area address the needs for the Project.
- SRP has selected Preferred Routes, Contingent Preferred Segments and Alternatives for the Project given that each route option presents opportunities

and constraints that create differing impacts to landowners and stakeholders. The Routing Study included in **Exhibit J-6** describes the justification for routes. However, between the time of filing this Application and the Arizona Power Plant and Transmission Line Siting Committee Hearing, SRP will continue to meet with agencies, stakeholders, and the public. Based on those continuing discussions, SRP may present additional details and refined routing preferences in the Arizona Power Plant and Transmission Line Siting Committee Hearing.

- No significant or detrimental effects to fish, wildlife, plant life and associated forms of life upon which they are dependent.
- No significant or detrimental effects associated with noise emission levels and interference with communication signals.
- Neither SRP nor jurisdictional agencies have any plans for future development of recreational facilities associated with the Project.
- Project implementation will be consistent with safety considerations and regulations.
- No significant or detrimental effects to existing scenic areas, historic sites and structures, or archaeological sites at or in the vicinity of the Project.
- No significant or detrimental effects to surface water or groundwater quality and availability.
- The Project is environmentally compatible with the total environment of the area.

Based on the information provided above, SRP hereby affirms, upon thorough expert scientific environmental evaluation and analysis, that the Project is environmentally compatible and respectfully requests the Arizona Power Plant and Transmission Line Siting Committee issue a Certificate of Environmental Compatibility (CEC), with a term of ten (10) years.

By:

Rick Hernandez

ORIGINAL and 25 copies of the foregoing hand delivered and filed with the Director of Utilities, Arizona Corporation Commission, this September 26, 2024.