

A1610012

## APPENDIX A

## DESCRIPTION OF PROPOSED TRANSMISSION FACILITIES

#### DESCRIPTION OF THE PROPOSED PROJECT FACILITIES

#### I. Introduction

This document is part of DCRT's application for a Certificate of Public Convenience and Necessity to the California Public Utilities Commission ("CPUC") for the Ten West Link Project ("Project").

Pursuant to GO 131-D, Section IX(A)(1)(a) and CPUC Rule 3.1(a), DCRT has provided in this document a detailed description of the proposed transmission facilities and equipment.

#### **II.** Project Facilities

Typical characteristics of the Project facilities, including the overhead alternating current (AC) 500 kV transmission line(s) and associated facilities, substations, seriescompensation station, and ancillary facilities, are provided in this section. The following sections summarize the Project's typical design characteristics.

The Project's design, construction, operation, and maintenance would meet or exceed requirements of the National Electrical Safety Code ("NESC") and U.S. Department of Labor Occupational Safety and Health Standards. In addition, Avian Power Line Interaction Committee recommendations would be implemented where impacts are anticipated, including marking the guy and any other static wires to improve visibility and reduce collisions and adding deterrents to reduce nesting and perching by ravens and other predatory birds.

#### A. Overhead Transmission Lines

The Project would include the installation of a 500 kV transmission line that meets the most recent version of CPUC General Order No. 95 ("GO 95") for the Project segment in California and the NESC for the Project segment in Arizona. The transmission line would be designed for GO 95 Light Loading, NESC Light District, and NESC Extreme Wind of 90 mph. The transmission line would also be designed to Grade B construction standards as defined in both GO 95 and the NESC. The design would be finalized in accordance with APS and SCE design standards for wire-to-wire interconnections. Additionally, the following standards and guidelines would be applied during the transmission line engineering and design process:

- ACI 318-08 Building Code Requirements for Structural Concrete
- ANSI/ASCE 10 Design of Latticed Steel Transmission Structures
- ASCE/SEI 48 Design of Steel Transmission Pole Structures
- ASCE MOP 74 Guidelines for Electrical Transmission Line Structural Loading
- ASCE MOP 91 Design of Guyed Electrical Transmission Structures

- IEC/TS 60815 Selection and Dimensioning of High-Voltage Insulators Intended for Use in Polluted Conditions
- IEEE 524 Guide to the Installation of Overhead Transmission Line Conductors
- IEEE 524a Guide to Grounding during the Installation of Overhead Transmission Line Conductors
- IEEE 691 Guide for Transmission Structure Foundation Design
- IEEE 977 Guide to the Installation of Foundations for Transmission Line Structures
- IEEE 951 Guide to the Assembly and Erection of Metal Transmission Structures
- IEEE 738 Standard for Calculating the Current-Temperature Relationship of Bare Overhead Conductors

#### Standards for California and Arizona include:

- Title 8 CCR, Section 2700 et seq. High Voltage Electric Safety Orders'
- GO-52, CPUC Construction and Operation of Power and Communication Lines
- IEEE 1119 IEEE Guide for Fence Safety Clearances in Electric-Supply Station
- GO-131-D Rules for Planning and Construction of Electric Generation, Line, and Substation Facilities in California
- 14 CCR, Sections 1250–1258 Fire Prevention Standard for Electric Utilities
- FERC FAC-003-1 Transmission Vegetation Management Program
- IEEE Std. 516 Guide for Maintenance Methods on Energized Power Lines
- 29 CFR 1910 Occupational Safety and Health Standards

#### B. Transmission Structures

The proposed support structures would be steel lattice towers. These include self-supporting four-legged tangent towers, guyed towers with a single footing and four support guy wires, and 2-legged H-frame towers as the primary structure types (Figures B-1, B-2 & B-3). For areas of conductor tension change, angles, and phasing transpositions, self-supporting four legged dead-end towers (Figure B-4) would be utilized. The structures are planned to be between 72 and 190 feet in height depending on the span length required and topography, with most being shorter than 130 feet. Span lengths between structures will vary

from 600 to 2,100 feet depending upon terrain conditions and to achieve site-specific mitigation objectives.

Additional structure refinements for structures shown in Figures B-1 through B-4 may be identified during preliminary engineering, but are anticipated to result in similar design and height as structures identified in the Environmental Impact Statement ("EIS"). The locations for each structure type would be determined during final design, and selected based on site-specific conditions or to mitigate impacts resulting from the Project.

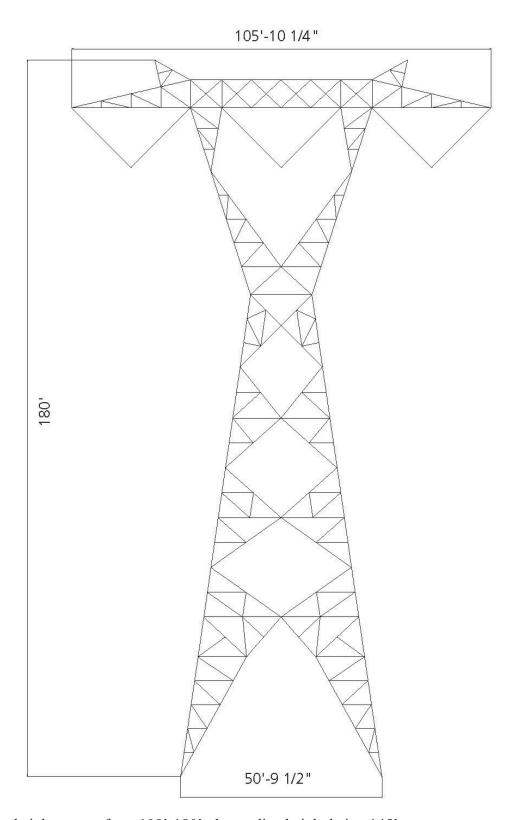
Each tower would be set on a concrete foundation placed in the ground. It is assumed that the foundations would be of a drilled pier type, with detailed design to be completed once site-specific soil conditions have been evaluated to determine the most suitable foundation type. Towers would have a foundation at each of the leg/ground intersection points.

The conductor, static wire, and optical static wire ("OPGW") will maintain a horizontal configuration for all tower types. All conductor bundles will be installed at the same height on the tower with approximately 34 feet of spacing between the center of each conductor bundle. The static wire and OPGW would be approximately 30 feet above the phase conductors at the top of the towers.

The typical distance between towers (600 to 2,100 feet) would depend on the structure type used and site-specific characteristics such as topography and land use. However, the typical span is expected to be approximately 1,200 feet. On average, three to eight structures would be placed per mile, depending on the structure type, topography, and angles of the route. Final heights of each structure would be governed by topography, span lengths, and safety requirements for conductor clearance.

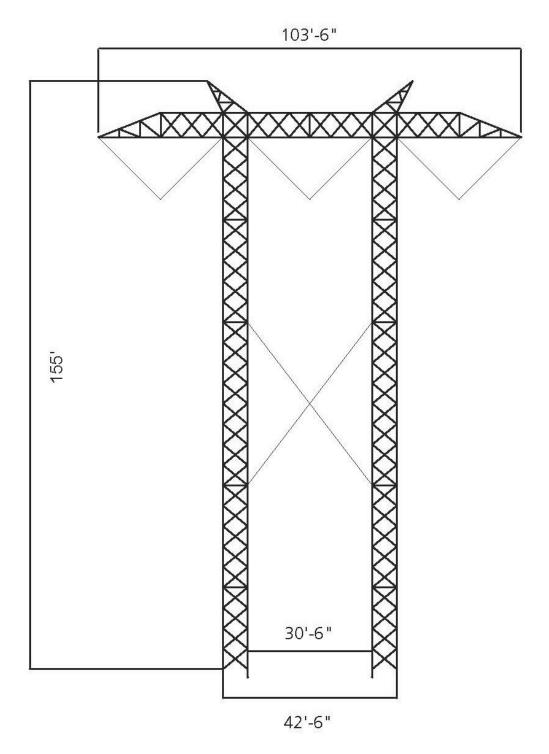
The proposed transmission line would be located adjacent to existing linear facilities such as transmission lines, pipelines and roads to the extent practicable. The Proponent would attempt to match the Project structure locations adjacent to existing transmission structures to the extent practicable.

Figure B-1. Proposed tangent tower structure



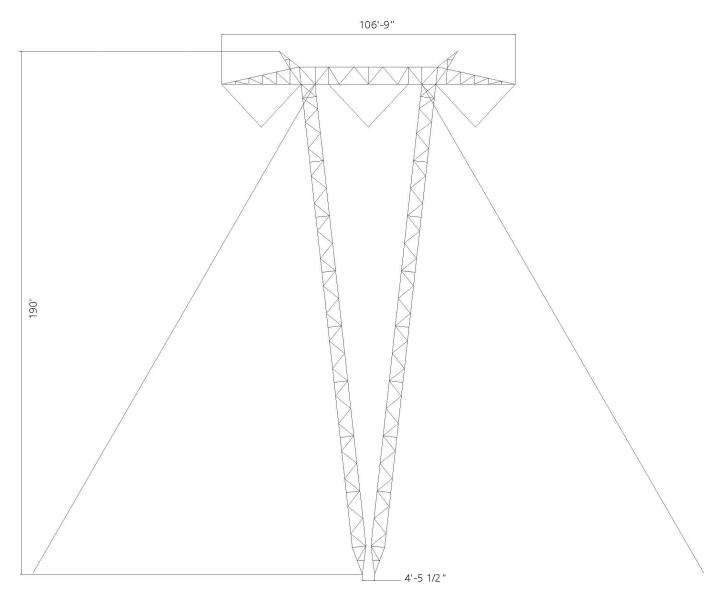
Tangent tower heights range from 100'-180', the median height being 145'.

Figure B-2. Proposed H tower structure



H-frame tower heights range from 100'-155', the median height being 145'.

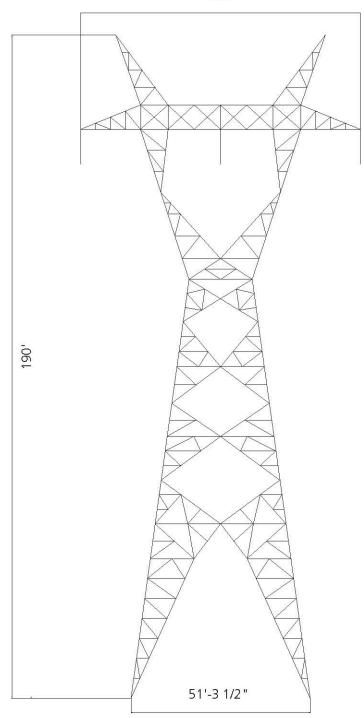
Figure B-3. Proposed guyed tangent tower structure



Guyed Vee tangent tower heights range from 100'-190', the median height being 145'.

Figure B-4. Proposed self-supporting angle-dead end structure

80'



Self supporting angle and dead end tower heights range from 100'-190', the median height being 145'.

#### C. Foundation

Each structure type requires specific foundations. The guyed "V" (lattice) structures require a center pier foundation and four anchors for the guy wires. The center pier would be either cast-in-place concrete, a precast foundation, or grillage foundation (a grillage consists of buried galvanized steel members designed to resist foundation loads). Grouted soil, grouted rock, or disk anchors would be used for the guy anchors. For drilled anchors, each anchor hole would be about 6 to 12 inches in diameter and range in depth from 10 to 40 feet. For disk anchors, typical excavations are about 6 feet-by-3 feet wide and about 10 to 15 feet deep.

The self-supporting steel towers would consist of four foundations, which would either be cast-in-place concrete, a precast foundation, or grillage foundation. H-Frame lattice structures would consist of two foundations, comprised of the same materials listed for self-supporting steel towers.

Given the Arizona/California southwest desert conditions, the alluvial plain of the Colorado River basin typically contains an upper 7 to 10 feet of soils that are generally loose sand, silt, and alluvium. In these areas, shrink-swell concerns and collapsing soils are more the rule rather than the exception. This precludes DCRT from assuming that favorable soil conditions are present for the proposed transmission line; hence, DCRT has decided to use a combination of deep foundations and spread footers. The approximate foundations by structure type are as follows (note that soil conditions and environmental and engineering considerations may change the foundation size and depth):

- Guyed V Tower (Tangent): foundation 3 feet-0 inches in diameter × 24 feet deep with 6 feet-6 inches square × 4 feet-0 inches cap (one per tower); additional 4 × multihelix screw anchors for the guys
- H Frame Lattice (Tangent): foundation 3 feet-0 inches in diameter × 24 feet deep (two per tower)
- Lattice Tower (Dead End): foundation 6 feet-0 inches in diameter × 38 feet deep (four per tower)

#### D. Conductors

The conductors are the wires strung between transmission line structures over which the electric current flows. Conductors for this Project will be aluminum stranded with a steel reinforced core, known as the aluminum conductor steel-reinforced (ACSR) design. The aluminum carries most of the electric current, and the steel provides tensile strength to support the aluminum strands. The AC transmission line would consist of three phases for the single-circuit, including a bundle comprised of multiple conductors per phase. The Project will use the Chukar ACSR conductor in triple-bundle configuration with 25% series compensation.

The conductors are typically spaced approximately 18 inches apart in an equilateral triangle configuration. The bundle configuration would be designed to provide adequate current- carrying capacity while minimizing interference from audible noise and to radio

operations. The minimum conductor height above ground for the transmission line would be 30 to 40 feet for most of the route and 50 feet for the Colorado River crossing, based on NESC and DCRT's design standards.

Conductors are supplied on reels, with up to approximately 9,000 feet in length of conductor is provided on each reel. At the locations where one reel ends and another begins, splicing will be required to make a continuous run along the conductor. Splices may be either compression type or implosive charge type.

To reduce vibration fatigue on installed conductor and associated hardware, vibration dampers may be installed on the conductor where required and as specified in the final design.

#### E. Insulators and Associated Hardware

Insulators, which are made of an extremely low conducting material such as porcelain, glass, or polymer, are used to suspend the conductors from each structure and to separate the current carrying conductor from the metallic towers. Insulator assemblies may consist of single strings or two strings of insulators. Insulators inhibit the flow of electrical current from the conductor to the ground, the structure, or another conductor. Insulator material would be selected based on electrical properties and maintenance practices, according to final Project engineering.

The transmission line insulation would be designed for 1,800-kV basic insulation level. Tangent and angle insulator assemblies would consist of two strings of insulators in a V configuration. Each leg of the V-string would be made up of a minimum of 23 porcelain insulators or equivalent polymer. Dead-end structures will use four parallel strings of at least 23 porcelain insulators or equivalent polymer and various line hardware connecting pieces to form the tension insulator assemblies. Dead-end structures would also use a single string of porcelain insulators or equivalent polymer in an I-string configuration to support the jumpers.

The maximum mechanical strength for the V-string insulators is 60 kips and for the dead end is 120 kips. (A kip is an Imperial unit of force equaling 1,000 pounds-force.) Additionally, jumper insulator string for angle tension towers and V string for the middle phase conductor of the dead-end tower would be used for additional isolation from the tower structure. Counterweights would be attached to these V-string assemblies of the angle and dead- end towers to avoid movement resulting from wind loads.

The quantity and type of insulators in the assemblies may be adjusted, if necessary, to achieve the appropriate leakage distance. The contamination level and insulator leakage distance would be evaluated in accordance with IEC Standard 60815.

#### F. Overhead Groundwire and Electrodes

To protect conductors from lightning strikes, two overhead shield or ground wires would be installed on top of the structures. Current from lightning strikes would be transferred through the ground wires and structures into the ground. One of the ground wires would be an EHS steel wire of 3/8 inch in diameter. The other ground wire would be an OPGW

constructed of aluminum and steel wires around a center core containing optical fibers for telecommunications and transmission line protection coordination purposes.

#### G. Grounding

The NESC code does not specify a benchmark value for resistance for grounding transmission structures. Instead, the NESC code defines effectively grounded as "Intentionally connected to earth through a ground connection or connections of sufficiently low impedance and having sufficient current-carrying capacity to prevent the build-up of voltages that may result in undue hazard to connected equipment or to persons." DCRT has elected to use 20 ohms as the target resistance value for grounding. During the detailed design process, DCRT would benchmark with SCE and APS to determine what these organizations are using for their assets in the area.

Upon completion of each structure installation, DCRT would measure the structure footing resistance to determine whether its target is met. If structure footing resistance is reached, ground rods are not required. If the structure footing resistance is not reached, a 5/8-inch  $\times$  10-foot ground rod(s) would be installed until the target resistance is reached. If ground rods cannot be driven, or the target resistance cannot be achieved, alternate grounding procedures would be undertaken.

#### H. Other Electrical Hardware

In addition to the conductors, insulators, and overhead shield wires, other hardware would be installed on the transmission structures as part of the insulator assembly to support the conductors and shield wires. This hardware would include fasteners, clamps, shackles, links, plates, and various other hardware composed mostly of galvanized steel and aluminum. To the extent possible, electrical hardware would be specified as "corona-free" to reduce the effects of audible noise and electrical stress caused by corona in high-voltage applications.

#### I. Other Nonelectrical Hardware

Other hardware, such as bird flight diverters, not associated with the transmission of electricity may be installed as part of the Project. This hardware may include aerial marker spheres or aircraft warning lighting, as required for the conductors or structures by Federal Aviation Administration regulations. Structure proximity to airports and structure height are the main factors determining whether Federal Aviation Administration regulations will apply, based on an assessment of wire/tower strike risk.

#### J. Access Roads

Access to the right-of-way ("ROW") would be provided by existing roads and trails, such as those associated with the DPV 500 kV transmission line and pipelines, to the extent practicable. Five types of access would be used for this transmission line: paved roads, existing dirt roads that would not require improvements, existing dirt roads that may require improvements, new bladed access roads, and overland access. The existing roads and trails

would be used in their present condition without improvements, unless improvements are required or are deemed to be in the Project's best interest and for future use. In areas where improvements are required, roads and trails would be graded to provide a smooth travel surface. Where existing roads and trails can be used to access the ROW, only spur roads or trails to each structure site would be required. Access on the ROW, other than in specific areas, would require a road graded to a width of up to 16 feet, with a 2-foot berm on either side. Typically, new roads would go directly from structure to structure, except on hillsides, ridgebacks, rock outcrop areas, wash crossings, treed areas, or in areas where sensitive environmental resources can be avoided. In such cases, the road would follow suitable topography from structure to structure and would be built in areas that generally cause the least amount of overall disturbance.

New roads that must be graded for access in steep terrain (side-hill roads) would most likely exceed the 24-foot width of disturbance because of cut and fill conditions; however, the travel surface width would not exceed 16 feet.

#### K. Series Compensation Station

The new series compensation system substation would be located under or in very-close proximity to the new transmission line, parallel to the existing series compensation system substation associated with the DPV 500 kV transmission line located at 59125 Pipeline Road in Arizona. The series compensation substation would be approximately 46.8 miles from Delaney Substation.

This station would be equipped with switchable banks of capacitors inserted in series with a line to compensate for the inductive voltage drop in the line, effectively allowing power transmission over greater lengths of line.

A general layout of the series compensation station is shown in Figure K-1. In this design, the series compensation substation is integrated in the same footprint of the transmission line with a 200-foot  $\times$  315-foot total area.

ABEINSA ENGINEERING ABENGOA Ch his act MON NOW

Figure K-1. Series compensation general layout

#### **III.** Project Construction

This section discusses the preconstruction and construction-related activated associated with the proposed Project. Topics include a brief overview of the construction activities, the construction workforce, environmental and safety training, and the processes that would be followed to address any variances or deviations that may be required during construction

#### A. Preconstruction Activities

The Applicant intends to refine the design of the proposed project during the Federal and State approval processes. Final engineering surveys would determine the exact locations of towers, access roads, etc. prior to construction. Technical and power system studies would determine items such as conductor sizes, substation arrangements, communications and similar needs. Due to the broad scope of construction, the varied nature of the construction activities, and the geographic diversity of the proposed project area, the Applicant envisions that up to two work fronts would operate simultaneously in different areas to complete project work within the projected timeframe and in accordance with industry performance standards.

The Applicant proposes to acquire a permanent 200-foot-wide ROW for construction and operation of the 500 kV line. This ROW has been designed to allow for the safe movement and operation of construction equipment, the safe construction of the proposed project facilities, and to allow for sufficient clearance between conductors and the ROW edge as required by the NESC 2012.

Preconstruction activities, including preconstruction environmental surveys, materials procurement, design, contracting, ROW acquisition, and permitting efforts would all influence project schedule. The schedule is predicated upon completion of the following tasks in a timely manner:

- Securing all necessary permit approvals
- Completing biological and cultural survey work
- Completing final engineering surveys
- Construction within environmental time constraints
- Ordering and receiving equipment
- Securing construction contractor resources and associated construction equipment
- Maintaining continuous construction activity with no delays

The Applicant would obtain a ROW through a combination of ROW grants and easements negotiated between the Applicant and various Federal, State, and local

governments; private companies; and private landowners. During the early stages of the proposed project, the Applicant would coordinate with property owners and land agencies to obtain right-of-entry permissions for surveys and geotechnical drilling at selected locations.

#### B. Transmission Construction Activities

Construction of the transmission line(s) would include the following sequence of activities:

- surveying and staking the transmission centerline, structure locations, environmental cultural resources sensitive areas, other Project features, and work areas
- upgrading or constructing temporary and permanent access roads
- clearing and grading the ROW and structure sites
- excavating and installing foundations
- assembling and erecting structures with temporary and permanent work areas
- using a conventional method of assembly and erection
- stringing conductors and shield wires
- installing counterpoise (tower grounds), where needed
- cleaning up and reclaiming affected areas
- constructing the series compensation station

In addition to these activities, other preconstruction and construction components include:

- preconstruction resource surveys and aerial photography
- ROW preparation
- additional preconstruction activities
- construction storage yards and concrete batch plants
- equipment staging areas
- equipment refueling areas
- flagging, fencing, and signs
- transportation management
- fire protection
- blasting

- erosion/dust control and air quality
- hazardous materials management
- emergency preparedness and response
- environmental compliance management
- noxious weeds

#### 1. Blasting

Blasting would be required for areas where significant hard rock is encountered and not able to be removed via heavy excavators. Blasting could be required for the installation of tower footings or to construct access roads. Areas where blasting may be required will be identified once a geotechnical investigation has been performed for the selected route.

#### 2. Foundation Installation

Each support structure would require the installation of foundations, which are typically drilled concrete piers. Geotechnical borings would be obtained prior to final design and construction. It is anticipated that soil borings would be obtained at each major angle point and at representative locations in between.

No soils investigations would be performed on the ROW until after a proposed centerline is identified within an approved corridor. It is anticipated that most of the geotechnical data would be collected soon after the ROW grant. In order to get construction started as soon as possible, it would be desirable to obtain geotechnical data on select line segments prior to the ROW grant. Early data collection for design would be subject to BLM/landowner permitting requirements, would likely be restricted to less sensitive areas, and likely could be coordinated with environmental surveys to minimize disturbance. It is also possible that data would be obtained as part of the route selection process in areas of specific geotechnical concern, in order to evaluate the need for special construction techniques and their corresponding impacts on certain segments.

Foundation depths would be consistent with geotechnical conditions at the structure site. First, drilled shafts would be excavated for each structure: four holes for each lattice tower, two holes for each H-Frame structure and one hole for each Guyed-V tower. The holes would be drilled using a truck-- mounted excavator equipped with augers of various sizes depending on the diameter and depth requirements of the hole to be drilled. The lattice tower holes would be approximately 4 feet in diameter. Excavation spoils would be evenly spread out within the ROW in the vicinity of each structure, unless specifically prohibited by the landowner. Spoils would be crowned around the foundations to provide positive drainage away from them.

Where solid rock is encountered, blasting, rock hauling, or the use of a rock anchoring or mini pile system may be required. The rock anchoring or mini-pile system would be used in areas where site access is limited or where adjacent structures could be

damaged as a result of blasting or rock hauling activities. Such anchoring systems may also be used where economically and technically justified. Materials used for rock anchoring or mini---pile systems would be stored in the staging areas and not on the ROW. In areas where it is not possible to operate large drilling equipment due to access or environmental constraints, hand digging may be required.

For lattice towers, steel reinforcing cages and stub angles would be installed. The foundations would be designed to satisfy all Federal, State, and local design codes.

Typically, concrete would be delivered directly to the site in concrete trucks with a capacity of up to 10 cubic yards. However, in areas with limited access or environmental constraints, the concrete would be placed in the excavation with either a crane and garbro bucket, or pumped from a distance of several hundred feet. Each foundation would extend approximately 2 feet above the ground level.

#### 3 Structure Erection

At local assembly and staging areas, materials would be staged and subassemblies may be fabricated. From these local assemblies and staging areas, material and subassemblies would be delivered to the tower/pole sites via flatbed truck or helicopter.

Subsequent to full or partial assembly, sections of the structure would be assembled adjacent to the structure location and lifted onto the foundation using a large crane of suitable capacity. The crane would move along the ROW as towers are erected.

#### 4. Wire Stringing

Conductor, shield wire and OPGW would be placed on the transmission line support structures by a process called stringing. Conductors with a non-specular finish would be suspended from insulator assemblies. Overhead shield wires and OPGW would be located on the peaks of each transmission structure and function to intercept lightning that would otherwise strike the conductor. All structures with a single shield wire peak would have OPGW installed at the structure peak. All structures with dual shield wire peaks would have OPGW installed on one peak, and steel shield wire installed on the other. Additionally, a grounding system would be installed at the base of each transmission structure that would consist of copper ground rods embedded into the ground in immediate proximity to the structure foundation and connected to the structure by buried copper lead.

The first step to conductor and shield wire stringing would be to install insulators and stringing sheaves. Stringing sheaves are rollers that are temporarily attached to the lower portion of the insulators at each transmission line support structure to allow conductors to be pulled along the line. A lightweight rope known as a finger line may be placed through each sheave with each end extending to the ground. Additionally, temporary clearance structures would be erected where required prior to stringing any transmission lines. The temporary clearance structures are typically vertical wood poles with cross arms and are erected at road crossings or crossings with other energized electrical lines to prevent contact during stringing activities. Bucket trucks may also be used to provide temporary

clearance. Bucket trucks are trucks fitted with a hinged arm ending in an enclosed platform called a "bucket" which can be raised to let the worker in the bucket service aerial equipment.

Once the stringing sheaves and temporary clearance structures are in place, the initial stringing operation would commence. This would consist of pulling a pilot line through the sheaves, using the finger lines, along a section of the alignment. The pilot line is then attached to the hard line, which follows the pilot line as it is pulled through the sheaves. The hard line would then be attached to the conductor or shield wire to pull it through the sheaves into its final location. Pulling the pilot line may be accomplished by attaching it to a specialized vehicle or to a small helicopter that moves along the ROW.

Pulling and tensioning would be used to install the hard line and the wires and achieve the correct sagging of the transmission lines between support structures. Pulling and tensioning sites would be required about every 3 miles along the ROW and would encompass approximately 1 to 2 acres to accommodate required equipment. Equipment at sites required for pulling and tensioning activities would include tractors and trailers with spooled reels that hold the conductors, and trucks with tensioning equipment. To the extent practicable, pulling and tensioning sites would be located within the ROW. Depending on the topography, minor grading may be required at some sites to create level pads for equipment. Wire splicing sites would be located midway between each pair of pulling/tensioning sites. Finally, the tension and sag of the conductors and shield wires would be fine-tuned, the conductors would be permanently attached to the insulators at the support structures, and the stringing sheaves would be removed.

#### 5. Helicopter Construction

The construction contractor(s) would ultimately decide the need for helicopter construction usage on the proposed project, except in areas where constructing access roads is not feasible. A helicopter Use Plan would be developed by the contractor. The hours of operation and expected number of miles of structures that could be erected per day would be described in the Helicopter Use Plan.

It is common to use a light helicopter to string the pilot line. The pilot line is then attached to a hard line on the ground, which is then attached to the conductor for actual pulling of the conductor. If utilized, the light helicopter would be operating for approximately 8 hours per week during stringing and its use would also be described in the Helicopter Use Plan.

### 6. Disposal and Cleanup

Construction would generate non-hazardous solid wastes, including material packaging, concrete, hardware and scrap metal. However, the volume of these wastes is not expected to be significant. Personal trash would be removed from the ROW on a daily basis. Construction waste (boxes, crates, etc.) would be removed from the transmission ROW shortly after each crew completes their specific task on site. The solid wastes generated

during construction would be hauled away for recycling or disposal at approved disposal sites. Approximately 10 dumpsters per month would be generated at each active staging site.

#### C. Series Compensation Station Construction

#### 1. Soil Borings

Typically, soil borings would be made at three to four locations in the Series Compensation Station ("SCS"), particularly at the approximate location of large equipment, such as transmission line dead end structures, in order to determine the engineering properties of the soil. Borings would be made with a truck or truck-mounted equipment. The borings would be approximately 4 inches in diameter, range from 30 to 60 feet in depth, and would be backfilled with excavated material upon completion.

#### 2. Clearing and Grading

Clearing of all vegetation would be required for the entire SCS area, including a distance of 10 feet outside the fence. This is required for personnel safety due to grounding concerns and because of lower clearances to energized conductors within the substation as compared to transmission lines. These lower clearances are allowed by NESC 2012 because of the limited access to the SCS due to fence and gates.

Vegetation is removed and a 4 to 6 inch layer of crushed rock is applied to the finished surface of the SCS. The SCS is usually treated with a soil sterilizer to prevent vegetation to ease maintenance. The entire SCS are would be graded flat, with enough slope to provide runoff of precipitation. The SCS would be graded to use existing drainage patterns to the extent possible. In some cases, drainage structures, such as ditches, culverts and sumps may be required to control runoff. Cleared and graded material would be disposed of in compliance with local ordinances. Material from offsite would be obtained at existing borrow or commercial sites and trucked to the SCS using existing roads and access roads.

Storm water runoff containment ponds may be installed to moderate the discharge of storm water offsite if determined to be necessary in the course of design.

### 3. Material Storage Yards

Construction material storage yards may be part of the SCS property or leased by the contractor. Storage areas for the SCS would be up to 10 acres and may be shared with transmission line crews. After construction is completed, all debris and unused materials would be removed and the storage yards returned preconstruction conditions by the contractor or as otherwise restored per agreement.

#### 4. Grounding

A grounding system is required at the SCS for fault protection and personnel safety. The grounding system typically consists of buried copper conductor arranged in a grid pattern and driven ground rods of adequate size, typically 8 to 10 feet in length. The ground rods and any equipment and structures are connected to the grid conductor. The amount of conductor, size, length, and number of ground rods required is calculated based on the fault current and soil characteristics. All metal structures and equipment are connected to the ground grid via ground pig tails. The ground grid is extended to approximately 4 feet outside of the perimeter fence to prevent unsafe reach-touch potential.

#### 5. Fencing

Security fencing is installed around the entire perimeter of each SCS to protect equipment and prevent accidental contact with energized electrical equipment by authorized or unauthorized personnel. The fence would most likely be a 7foot chain-line fence with steel posts. One foot of barbed wire is installed at the top of the chain-link, yielding a total height of 8 feet. Locked gates would be installed at appropriate locations for authorized vehicle and personnel access.

#### 6. Foundation Installation

Foundations for supporting structures would be drilled piers. Pier foundations are placed in a hole generally made by a truck-mounted auger. Reinforced steel and anchor bolts are placed into the hole using truck-mounted crane. The portion of the foundation above ground would be formed. The portion below ground uses the undisturbed earth of the augured hole as the form. After the foundation has been poured, the forms would be removed, the excavation would be backfilled, and the surface of the foundation dressed.

Where necessary, provision would be made in the design of the foundations to mitigate potential problems due to frost. Reinforced steel and anchor bolts would be transported to each site by truck, either as a prefabricated cage or loose pieces, which would then be fabricated into cages on the site. Concrete would be hauled to the site in concrete trucks. Water would be required for concrete mixing. Excavated material would be spread at the site or disposed of in accordance with local ordinances and per agreement. Structures and equipment would be attached to the foundations by means of threaded anchor bolts embedded in the concrete. Some equipment such as transformers may not require anchor bolts. They would be secured to the foundation by other means.

#### 7. Structure and Equipment Installation

Supporting steel structures are erected on concrete foundations. These are set with a truck-mounted crane and attached to the foundation anchor bolts by means of a steel base plate. These structures would be used to support the energized conductors and certain types of equipment. This equipment is lifted onto the structure by means of a truck-mounted crane and bolted to the structures, and electrical connections are then made. Some equipment is mounted directly to the foundations without supporting structures. These are set in place by

means of a truck-mounted crane. Some of this equipment requires assembly and testing on the pad. Electrical connections to the equipment are then made.

#### 8. Conductor Installation

Two main types of high-voltage conductors are used in the SCS: tubular aluminum for rigid bus sections and/or stranded aluminum conductor for strain bus and connections to equipment. Rigid bus would be supported by porcelain insulators installed on steel supports. The bus sections would be welded together and attached to special fittings for connection to equipment. Stranded aluminum conductors would be used as flexible connectors between the rigid bus and the SCS equipment.

## 9. Construction Cleanup

The cleanup operation would be performed after construction activities are completed. All waste and scrap material would be removed from the site and disposed in local permitted landfills in accordance with local ordinances. Approximately 10 dumpsters per month would be generated at the SCS site. Ruts and holes outside the SCS fence due to construction activities would be regraded. Revegetation and restoration would be conducted as required.

#### D. Construction Workforce

The estimated number of workers and types of equipment required to construct the proposed transmission line are shown in Table C-1 and are subject to adjustment as Project planning evolves. Various phases of construction would occur at different locations throughout the construction process, and in some cases at the same time at different locations. Regular field meetings would be held with the CIC and environmental monitors to coordinate construction activities with monitoring requirements for the transmission line and ancillary facilities.

The information provided below in table C-1 is for one work front. All the following activities, but ROW survey and Geotechnical investigation will operate in up to two work fronts simultaneously.

**Table C-1**. 500 kV transmission line labor force and equipment requirements

		Equipme	ent		C
Activity	Number	Туре	Number	Туре	Crew
ROW survey	2	GPS survey equipment	1	Pick-up truck	4
Geotechnical Investigation	1	2-ton drill truck	1	Pick-up truck	4
Access road construction	2	Bulldozers, D6 or D8	2	Pick-up trucks	8
	2	Motor graders	2	Water trucks	
Foundation installation	2	Augers	1	Bulldozer, D-6	24

		Equipm	ent		
Activity	Number	Туре	Number	Туре	Crew
	2	Wagon drills	1	Front-end loader	
	2	Flatbed trucks with booms	2	Dumb trucks	
	1	15-ton Hydro crane	2	2-ton trucks	
	2	Concrete trucks	1	Carry all	
	1	Water truck			
Laydown yard/receiving	1	40-ton crane	2	Pick-up trucks	8
	2	Forklifts			
Structure hauling	2	Flatbed trailers	1	Pick-up truck	4
	1	Boom truck	1	Forklift	
Structure assembly	2	40-ton cranes	1	2-ton crane	16
	2	Carry alls	2	Pick-up trucks	
Structure erection	2	100-ton cranes	2	2-ton trucks	20
	2	Boom trucks	2	Pick-up trucks	
Wire stringing	1	Drum puller	2	Haul trailers	20
	1	Tensioner	1	30-ton crane	
	2	Wire reel trailers	4	Boom trucks	
	1	D-8 Cat with sag winches	2	2-ton trucks	
	1	Splicing truck	4	Pick-up trucks	
Road/ROW restoration	1	Bulldozer, D-6 or D-8	1	Pick-up truck	8
	1	Front-end loader with bucket	1	Dump truck	
	1	Tractor with seeing equipment	1	Water truck	
	1	Motor grader			
Clean up	1	Flatbed truck with bucket	2	Pick up trucks	4

Table C-2. 500 kV substation labor force and equipment requirements

		Equipme	ent		C
Activity	Number	Туре	Number	Туре	Crew
Substation Construction	1	Workforce	1	Crew	20
Site Grading and Surfacing	2	CAT 623 Scraper	1	CAT 140H Blade	
	1	Mid-Size Dozer	1	Sheepfoot Roller	
	1	Water Truck	1	Smooth Drum Roller	
	1	Walk Behind Roller	1	Cat 950 Loader	
	1	30-Ton Exvcavator			
Equipment Installation and	1	Mini Excavator	1	Backhoe	

		Equipme	ent		Cwarri
Activity	Number	Туре	Number	Type	Crew
Steel Erection	2	40-foot Manlift	2	60-foot Manlift	
	1	90-foot Manlift	1	Skidsteer Loader	
	1	Trencher	1	60-Ton Crane	
	2	5-Ton Forklift			

# E. Construction Schedule

The proposed construction schedule is detailed in Table D-1.

Table D-1. Construction Schedule

Task Name	Duration	Start	Finish
EPC Contract - Transmission Line	585 days	Mon 1/1/18	Mon 1/1/18 Thu 3/26/20
Project Execution Plan	11 days	Mon 1/1/18	Mon 1/1/18 Mon 1/15/18
Design & Engineering	387 days	Mon 1/1/18	Mon 1/1/18 Mon 6/24/19
Procurement	173 days	Mon 6/25/18 Wed 2/20/19	Wed 2/20/19
Construction Mobilization & Recruitment	272 days	Mon 11/19/18 Tue 12/3/19	Tue 12/3/19
Access Roads	107 days	Mon 12/3/18 Tue 4/30/19	Tue 4/30/19
Foundations	184 days	Tue 12/4/18	Fri 8/16/19
Tower Erection & Assembly	234 days	Thu 12/6/18	Thu 12/6/18 Tue 10/29/19
Wire Stringing and installation of cables and accessories	207 days	Mon 3/25/19	Tue 1/7/20
Commissioning and testing	57 days	Wed 1/8/20	Wed 1/8/20 Thu 3/26/20
EPC Contract - Substation	472 days	Fri 7/6/18	Fri 7/6/18 Mon 4/27/20
Procurement	300 days	Fri 7/6/18	Fri 7/6/18 Thu 8/29/19
Capacitor Bank	300 days	Tue 9/18/18	Tue 9/18/18 /lon 11/11/19
Protections	109 days	Tue 3/19/19	Fri 8/16/19
Civil Works	40 days	Mon 5/20/19	Fri 7/12/19
Erection & Assembly Works	30 days	Tue 11/12/19 //on 12/23/19	Jon 12/23/19
Commissioning and testing	90 days	Tue 12/24/19 Mon 4/27/20	Mon 4/27/20
Project In-Service Date	0 days	Fri 5/1/20	Fri 5/1/20

#### F. Environmental and Safety Training

Prior to gaining access to the ROW, all construction and maintenance workers would be required to participate in an environmental education program. This program would be developed by the Proponent prior to the start of construction and would be submitted to BLM for review and approval prior to implementation. At a minimum, the program would include the following topics: biological, cultural, paleontological, and other environmental requirements and protection measures.

After participating in the training program, each trained worker would receive a card and hardhat sticker, indicating they are cleared for access to the ROW. The construction contractor(s) would provide the CIC with an updated list of those workers who have received the training. It is the responsibility of the construction contractor(s) to ensure that all construction personnel have received the required training. A noncompliance violation would be issued if a worker is found working on the ROW without the required environmental training.

In addition, the construction contractor(s) would be responsible for providing safety training as required. All construction, operation, and maintenance activities would be required to comply with Occupational Safety and Health Administration regulations. The CIC would be notified by the construction contractor(s) of any accidents that occur on public land during construction of the Project.

#### G. Deviations during Construction

Changes or deviations (referred to as variances) are likely to be needed for the Project to accommodate or mitigate on-site circumstances. BLM and the Proponent understand that unforeseen circumstances would occur during construction. The need for realignments to the proposed Project route, access roads, and/or work areas that are not within the permitted Project ROW grant and EIS analysis area may arise. In addition, changes to construction procedures, schedule, and/or approved mitigation measures and other specific stipulations and methods may be required. Under these or similar circumstances, a variance would need to be filed and approved by BLM to stay in compliance.

#### H. Project Construction Closeout

Upon completion of construction for the Project (including initial restoration activities), the Proponent and the construction contractor(s) would coordinate with the CIC and BLM Authorized Officer and resource staff to conduct final on-the-ground inspections of Project conditions. Inspections would be conducted to ensure work was completed in accordance with the terms and conditions of the ROW grant, Record of Decision (ROD), POD, and any other applicable permits. When the BLM Authorized Officer determines that construction (including initial restoration activities) has been completed in compliance with the ROW grant, ROD, POD, and any other applicable permits, the CIC, construction contractor(s), and Project Proponent's construction roles would be considered complete. This determination would initiate the post-

construction monitoring phase for restoration success for which the Proponent would remain responsible.

After BLM's determination of successful construction completion, the CIC would submit a final summary report to the BLM Authorized Officer documenting the construction process and activities including, but not limited to, the following items:

- amount of actual temporary and permanent Project disturbance (acres) as compared with the POD
- compilation of weekly summary compliance reports (including digital pictures)
- variance requests and corresponding CIC/BLM decisions
- temporary work suspensions and work stoppage orders for violation of environmental requirements
- compliance terms and documentation of resolution
- environmental training roster



A1610012

## APPENDIX B

# PROJECT SCHEDULE AND IMPLEMENTATION PLAN

TEN WEST LINK
Delaney - Colorado River Transmission Line Project

Mon 10/10/16 

<b>⊕</b>	Task Name	Duration	Start	Finish	
_	Delaney Colorado River 500 kV Transmission Line Project	1264 days	Fri 7/10/15	Fri 5/1/20	
2	Project awarded by CAISO	1 day	Fri 7/10/15	Fri 7/10/15	
က	Management	1251 days	Fri 7/10/15	Tue 4/14/20	
4	CAISO APSA updates	1248 days	Tue 7/14/15	Tue 4/14/20	
2	Management project start-up	21 days	Fri 9/25/15	Fri 10/23/15	
9	Consultant selection	142 days	Fri 7/10/15	Fri 1/22/16	
7	FERC filings	1057 days	Mon 8/17/15	Fri 8/23/19	
ω	Interconnection & Engineering	1237 days	Wed 8/12/15	Mon 4/27/20	
<b>6</b>	Line design	18 days	Wed 10/7/15	Fri 10/30/15	
10	Preliminary engineering	90 days	Mon 1/25/16	Wed 5/25/16	
1	Electrical Interconnection	1237 days	Wed 8/12/15	Mon 4/27/20	
12	Interconnection studies	466 days	Wed 8/12/15	Mon 5/15/17	
13	Facilities studies, engineering, design & procurement	525 days	Wed 2/1/17	Fri 2/1/19	
41	Construction & interconnection	261 days	Tue 1/1/19	Tue 12/31/19	
15	Testing and commissioning	127 days	Fri 11/1/19	Mon 4/27/20	
16	Permitting	841 days	Fri 7/10/15	Tue 9/18/18	
17	Public outreach	517 days	Thu 9/24/15	Wed 9/6/17	
18	ACC & CEC Process	512 days	Mon 10/12/15	Fri 9/15/17	
19	NEPA process	686 days	Fri 7/10/15	Thu 2/15/18	
20	CEQA/CPCN process	597 days	Fri 10/30/15	Thu 2/1/18	
21	CEQA process	597 days	Fri 10/30/15	Thu 2/1/18	
22	CPCN process	597 days	Fri 10/30/15	Thu 2/1/18	
23	Other state, federal & local permits/consultations	153 days	Mon 2/19/18	Tue 9/18/18	
24	ROW & Land Acquisition	711 days	Thu 9/10/15	Mon 5/21/18	
25	Project start up	94 wks	Fri 9/25/15	Tue 7/4/17	
26	Crossing permits	515 days	Thu 10/22/15	Sun 10/1/17	
27	BLM	634 days	Wed 9/23/15	Thu 2/15/18	
28	Department of Defense (including Yuma Proving Ground)	634 days	Wed 9/23/15	Thu 2/15/18	
29	California State Lands	682 days	Wed 10/21/15	Mon 5/21/18	
30	Arizona State Lands	695 days	Thu 9/10/15	Fri 4/27/18	

TEN WEST LINK
Delaney - Colorado River Transmission Line Project

Mon 10/10/16 1

	Task Name	Duration	Start	Finish
31	Field survey permitting & field survey support	263 days	Mon 10/3/16	Mon 10/2/17
32	ROW acquisition	486 days	Wed 6/1/16	Wed 4/4/18
33	EPC Contract - Transmission Line	585 days	Mon 1/1/18	Thu 3/26/20
34	Project execution plan	11 days	Mon 1/1/18	Mon 1/15/18
35	Design & engineering	387 days	Mon 1/1/18	Mon 6/24/19
36	Procurement	173 days	Mon 6/25/18	Wed 2/20/19
37	Construction mobilization & recruitment	272 days	Mon 11/19/18	Tue 12/3/19
38	Access roads	107 days	Mon 12/3/18	Tue 4/30/19
39	Foundations	184 days	Tue 12/4/18	Fri 8/16/19
40	Tower erection & assembly	234 days	Thu 12/6/18	Tue 10/29/19
41	Wire stringing & installation of cables and accessories	207 days	Mon 3/25/19	Tue 1/7/20
42	Commissioning & testing	57 days	Wed 1/8/20	Thu 3/26/20
43	EPC Contract - Substation	472 days	Fri 7/6/18	Mon 4/27/20
44	Procurement	300 days	Fri 7/6/18	Thu 8/29/19
45	Capacitor bank	300 days	Tue 9/18/18	Mon 11/11/19
46	Protections	109 days	Tue 3/19/19	Fri 8/16/19
47	Civil works	40 days	Mon 5/20/19	Fri 7/12/19
48	Erection & assembly works	30 days	Tue 11/12/19	Mon 12/23/19
49	Commissioning & testing	90 days	Tue 12/24/19	Mon 4/27/20
20	Project In-Service Date	1 day	Fri 5/1/20	Fri 5/1/20

#### DCR TRANSMISSION TEN WEST LINK PROJECT IMPLEMENTATION PLAN

This Project Implementation Plan (the "Plan"), provided in accordance with California Public Utilities Code Section 1003, explains how the Ten West Link Project ("Ten West", or the "Project") will be scoped, budgeted, designed, contracted, procured, constructed, and commissioned. The Plan shows how all major tasks will be integrated and includes a timetable (attached hereto) for each major component of the Project. The Plan also indicates the contractual and working responsibilities of DCRT's management team.

#### 1. <u>Introduction</u>

Since the Project was awarded to DCRT under the CAISO's Transmission Planning Process in July 2015, DCRT's Project Management Team ("PMT") has been working to ensure the successful completion of the Project, including supporting the preparation and development of various permitting and construction documents. The PMT is comprised of DCRT in-house personnel with support from key consultants for discrete functional activities where appropriate. Other members of the project team will be identified, recruited and integrated into the PMT as necessary to support project related activities. The PMT will manage all development, permitting, right-of-way ("ROW") and land acquisition, and financing activities and will supervise the engineering, procurement, and construction ("EPC") company responsible for designing, engineering, material procurement, constructing and commissioning the Ten West project. Given the large project scope, long lead-time for certain materials, and the extended construction periods, detailed engineering specification and procurement of major equipment and materials must begin prior to receipt of all regulatory approvals. Furthermore, extensive engineering support will be required from the start of the permitting process and will continue through project commissioning. Construction activities will commence after all of the regulatory

approvals, financing, land acquisition, ROWs and required permits are obtained, and the project achieves full financial close.

#### 1.1 Project Management Team, Roles and Responsibilities

DCRT's Project Manager has the overall responsibility and commensurate authority for successful completion of the Project. Project work is managed by a cross-functional management team comprised of experienced employees of DCRT and its affiliates, Starwood Energy Group and Abengoa Transmission & Infrastructure ("ATI"). Though the Project Manager will remain responsible for the duration of the Project, individuals with relevant expertise and experience may be added to the PMT as the Project progresses through project development, regulatory approval, financing, design, construction, and commission.

DCRT's PMT will have the responsibility of carrying out the siting, permitting, engineering, procurement, construction and commissioning for the Project. This will be accomplished by the following teams and by the following key members of the PMT:

#### **1.1.1 Teams:**

- <u>Siting</u>: DCRT members with support from HDR Engineering, Inc. ("HDR"),
   Allen Matkins Leck Gamble Mallory & Natsis LLP ("Allen Matkins"), Crowell
   & Moring LLP ("Crowell"), CBX International, LLC ("CBX"), 7Skyline, LLC,
   and Osborn Maledon, P.A ("Osborn Maledon").
- <u>Permitting</u>: DCRT members with support from HDR Engineering, Inc., Allen
   Matkins, Crowell, CBX, and Osborn Maledon.
- Land and ROW acquisition: DCRT members with support from HDR and an

- experienced, reputable title company.
- Technical support: HDR, Transco Energy, LLC, and Utility System Efficiencies, Inc. to perform studies that may be required by Arizona Public Service, Southern California Edison, Salt River Project Agricultural Improvement and Power District, and Western Electric Coordinating Council ("WECC") related to interconnection of Ten West to the transmission grid.
- <u>Financing</u>: DCRT members with legal support from Skadden, Arps, Slate,
   Meagher & Flom LLP.
- Engineering, Procurement and Construction: DCRT will engage an experienced,
   reputable and financeable EPC contractor (such as ATI) to perform the EPC work
   under a fixed-price, turn-key contract with strict performance requirements.
  - <u>Regulatory</u>: PMT members with support from Crowell, on California regulatory matters, and Sutherland Asbill & Brennan LLP on all Federal regulatory matters.
- Project Operation: With respect to systems operation, DCRT will engage a
  qualified operator, such as Valley Electric Association, for systems operations.
   DCRT will engage an experienced, reputable and financeable EPC contractor (such as ATI) for field commissioning.
- Public Affairs and Stakeholder/Community Outreach: The DCRT team fully
  recognizes that an effective and timely stakeholder outreach is a critical ingredient
  to the success of the Ten West Project. To that end, DCRT has enlisted the
  services of Copper State and Kearns and West to coordinate meetings and outreach

to general public, regional and local government and special interest groups, and to ensure that issues, concerns, and needs of the key stakeholders are identified and addressed. DCRT has also acquired the service of a tribal affairs expert to assist with tribal outreach, establish tribal relationships and to serve as the key interface point with the tribes. These outreach experts, in conjunction with the PDT, are also responsible for developing and implementing public involvement and outreach.

#### 1.2 Key Roles:

- Project Manager: Responsible for overseeing the execution of all project work including development, permitting, financing, construction, and commissioning. The Project Manager relies on members of the project team and delegates authority to specific team members, as necessary, for specialized tasks such as evaluation of bids/proposal, making awards or recommendations, acquisition of land and right-of-way, evaluating major equipment design, purchases and requests for engineering and/or construction change orders, including schedule changes.
  The Project Manager holds the ultimate responsibility for ensuring that all team members are performing their responsibilities in accordance with the Project Plan and that the Project stays on schedule and under budget.
- <u>Project Engineering Lead</u>: The Project Engineer Lead oversees all engineering activities for the Project and provides the technical interface with other DCRT affiliates. Major responsibilities include:
  - Overseeing all technical studies necessary for interconnection to other utilities.

- Executing interconnection agreement with the utilities.
- o Coordinating and satisfying WECC studies and reporting requirements.
- Managing relationship with CAISO and confirm that the Project is designed, constructed and commissioned in accordance with the requirements set forth by the CAISO.
- Ongoing oversight of the activities and performance of the Transmission Operator to ensure compliance with CAISO and NERC standards.
- Ongoing oversight of managing all new generation interconnection requests to Ten West submitted through the CAISO Large Generation Interconnection Process.
- Project Coordinator: Reports to the Project Manager and is responsible for
  providing administrative support to the project team, creation and maintenance
  of a file(s) containing key project documentation, budgeting, project schedule,
  and communicating, implementing, and maintaining appropriate project
  management tools and systems.
- Project Licensing: Reports functionally to the Project Manager and is responsible for planning and coordinating all DCRT activities necessary to obtain the regulatory approvals required to license the Project. Specific responsibilities include identification of the applicable regulatory agencies and approvals required for a Project, overseeing the preparation of the regulatory applications and environmental documentation, coordinating the Project's participation in the agencies' permitting processes, and ensuring that necessary permits and regulatory approvals are obtained in a timely manner.
- <u>Project Regulatory Lead</u>: Oversees all work related to the relevant regulatory
   processes, including serving as the primary regulatory interface with the Federal

Energy Regulatory Commission, the California Public Utilities Commission, the Arizona Corporation Commission, and other state and federal agencies.

- Project Environmental Lead: Reports to the Project Manager and is responsible
  for managing NEPA and CEQA process including overseeing all activities of
  contracted resources to ensure that a final Environmental Impact Statement,
   Record of Decision and CEQA certificate is obtained in a timely manner.
- Project Construction Manager: Reports to Project Manager and responsible for managing coordination of all activities of EPC contractor to ensure that the Ten West is constructed and commissioned in accordance with all CAISO and project permit requirements. The Construction Manager will also coordinate efforts with other project leads and communication specialists to ensure that all project related activities proceed on schedule.

#### 1.3 Project Management Plan

The Project schedule has been developed in conjunction with all other teams involved in the Project and is based on the approved scope of work, the staging requirements, and constraints, site and environmental conditions known at the time of preparation.

A key tool used to ensure that the schedule and budget goals are met is the use of a Coordinated Project Team ("CPT") methodology. The CPT methodology ensures that all Project and sub-Project activities are coordinated and managed according to their critical path dependencies. This allows for greater ability to control cost, schedule and risks. The PMT is presently employing a Comprehensive Project Work Structure ("CPWS"). The CPWS is a framework for categorizing Project activities from initiation to decommissioning in both logical

and chronological order. The Project's CPWS provides an outline that allows the CPT to track, monitor, and manage schedules, budgets, risks, and all Project activities. The following are activities under the CPWS:

- Scope Management: This involves defining the scope of activities that must be undertaken to achieve successful and ongoing commercial operation.
- Resource Management: This involves defining the timing and needs for professional services and material resources throughout the Project lifecycle.
- Cost Management: This involves the planning, estimating, budgeting, and controlling of costs so that the Project is completed within the approved budget.
- Schedule Management: This involves assigning the processes for managing the schedule by identifying the tools (e.g., GANTT charts, Microsoft Project) to be used by all Project team members.
- Quality Management: This involves defining quality standards relevant to the Project and its implementation.
- Contracts Management: This provides the framework for managing contracts and relationships between the EPC provider and its material and service providers.
- Risk Management: This plan consists of processes and reporting tools necessary for tracking identified risks, monitoring residual risks, identifying new risks, executing risk response plans, and evaluating their effectiveness throughout the Project lifecycle.

#### 1.4 Review and Monitoring

To adapt to prevailing conditions and requirements, the project execution strategy and methodology may need to change during the course of the Project. Regular ongoing review of implementation methodology will be crucial to successful completion of the work. The principal mechanism for review and monitoring of Project execution will be regular Project meetings involving all affected team members.

#### 1.5 Project Construction Management Plan

For purposes of Project construction, DCRT will engage an experienced, reputable, and

financeable EPC contractor to perform the EPC work under a fixed-price, turn-key contract with strict performance requirements. The EPC contractor will provide DCRT with an EPC Construction Plan to be reviewed and approved by the Project Manager and Construction Manager prior to implementation. The plans will be reviewed on a regular basis and updated or amended to reflect prevailing requirements and conditions. The EPC Construction Plan will address management of: resources, equipment, quality, traffic, safety, environmental, subcontractors, and site management.

Key elements of the EPC Construction Plan will include: design and engineering; procurement of long lead-time items; construction mobilization and recruitment of personnel and resources; access roads; tower erection and assembly; stringing and installing cables and accessories; and construction of the series-compensation station; Project commissioning and testing

#### 1.6 Financing Plan

DCRT's financing plan is described in Appendix J.

#### 1.7 <u>Cost Control Plan</u>

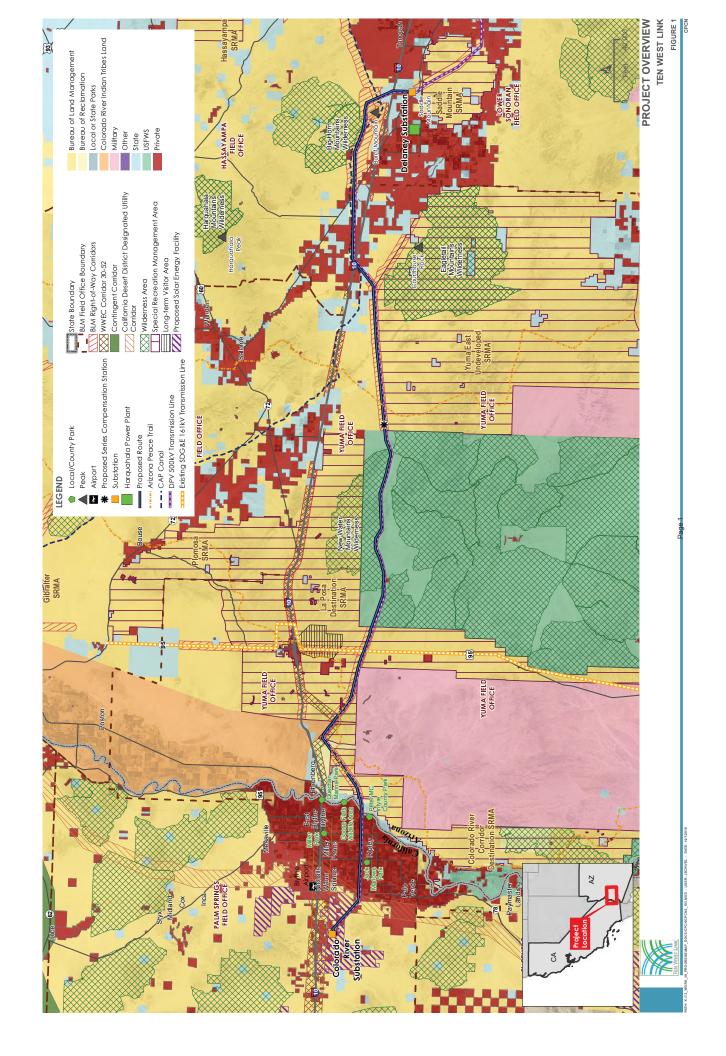
During the development, permitting, financing and construction phases, DCRT will employ cost and schedule controls as well as cost tracking procedures. To ensure minimization of change orders, DCRT will take all efforts to ensure that the Project scope for each phase is both detailed and comprehensive.



A1610012

# **APPENDIX C**

## MAP OF PROPOSED PROJECT LOCATION





A1610012

# APPENDIX D

## **PROJECT COST ESTIMATES**

### **Appendix D**

## Project Costs Estimate<sup>1</sup>

<b>Transmission Line Costs</b>		
Development		
Financing		
SPV – Management		
EPC Construction		
Project Management		
Equipment		
Construction Engineering		
Substation		
Transmission Line		
Other		
	Subtotal	\$ 241,805,391
Interconnection Costs		
Interconnection Costs		\$ 37,755,092
	Subtotal	\$ 37,755,092
	Total	\$ 279,560,483 <sup>2</sup>

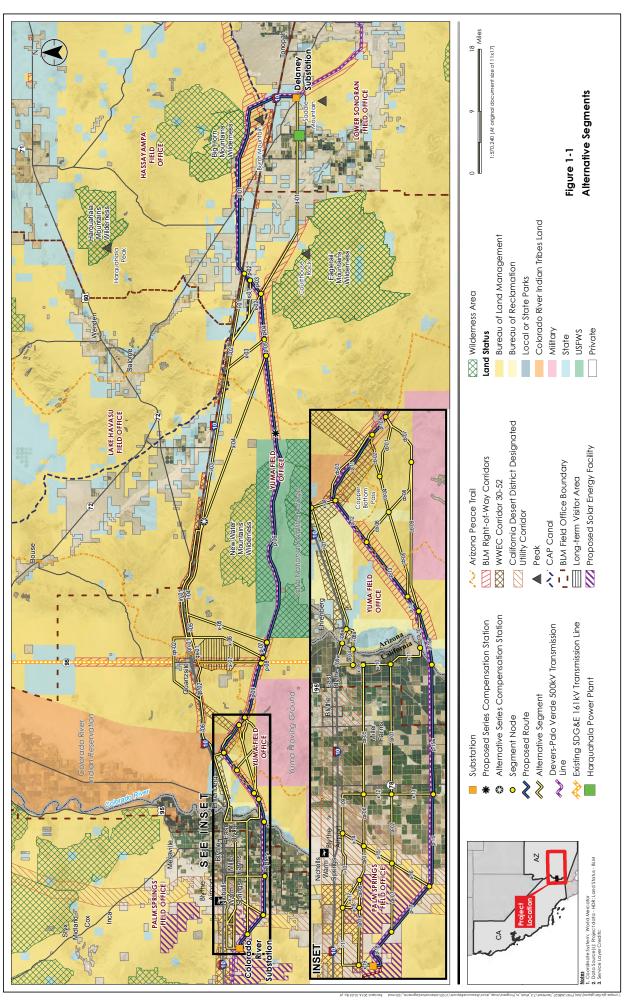
<sup>&</sup>lt;sup>1</sup> Subject to certain exemptions and exceptions, total project capital costs excluding certain interconnection facilities costs are capped at approximately \$242 million.
<sup>2</sup> Cost estimates are in 2020 dollars.



A1610012

# APPENDIX E

## **COMPARISON WITH ALTERNATIVE ROUTES**



Segment	Lenght (miles)	County	Segment Description	Siting Constraints
d-01	25.25	Maricopa/La Paz	Alternative segment through BLM, state and agricultural lands avoids two highway crossings that would incur with the proposed route. Partially parallels existing Kinder Morgan Pipeline, within an existing utility corridor.	This segment would cross additional primate lands parcels. Only a portion of the segment is located within a designated utility corridor.
x-01	8.01	La Paz	Alternative segment developed by Arizona State Lands to collocate the transmission line in the same corridor as the Central Arizona Project and accross the same state lands and parcels.	Additional 0.7 miles compared with segment i-01, while eliminating the need of two Central Arizona Project crossings.
x-02	6.73	La Paz	Alternative route segment. Short segment that would connect alternative segment d-01 to alternative segment i-01.	
x-03	5.63	La Paz	Alternative close to Salome Emergency Airfield connecting segment p-04 with i- 03	Some equipment exists in the airfield property that should be avoided. Compared with segment x-02 + i-02 + i-03, this alternative would accomplish the same purpose but add approximately 2 miles of line lenght.
x-04	22.63	La Paz	Alternative segment following open land and connecting the proposed segments p- 04 + p-05 with the i-05 alongside the I-10, avoiding the Kofa NWR crossing. Paralell to existing Kinder Morgan pipeline.	Not within and existing designated utility corridor.
x-05	10.33	La Paz	Alternative route segment connecting the I-10 to the south and avoiding the Kofa NWR crossing	Area without an existing utility line, new access roads will be requied. Not within a designated BLM utilty corridor.
x-06	9.25	La Paz	Alternative segment connecting i-05/in-01 segments with p-08, going south from the I-10 corridor to the proposed route south-east of Quarzsite, bordering BLM's La Posa Long Term Visitor Area	Area without an existing utility, new access roads will be requied. Not within a designated BLM utilty corridor.
x-07	7.73	La Paz	Alternative segment connecting the I-10 alternatives to the proposed route travelling parallel to Highway 95. Alignment is located primarily to the east fo Highway 95 and would cross the highway at the interssection of segments p-08 and p-09.	Would cross Quartzsite and the La Posa Long term Visitor area.
x-08	1.31	La Paz	Alternative segment connecting segment i-06 alonside the I-10 to the north of Copper Bottom Pass, coming back to the proposed route on segment p-12, parallel to existing Kinder Morgan pipeline	Increased lenght compared with the proposed route
x-09	N/A	Riverside	North-to-south segment that travels through agricultural lands.	Bisects large agricultural facilities with numerous buildings and active agricultural plots. Challenges have been identified for segment ca-04 as a predecessor to this segment.
x-10	1.25	Riverside	North-to-south segment that travels through agricultural lands; parallels two canals and crosses two canals.	Bisects large agricultural facilities with numerous buildings and active agricultural plots.
x-11	1.98	Riverside	Colorado River crossing just north of proposed route that crosses BLM, State, and private lands; continues north across agricultural land.	The segment crosses active agricultural plots and is close to one residence. The segment crosses 990 feet of critical habitat for the yellow-billed cuckoo.
x-12	1.24	Riverside	North-to-south segment that travels through agricultural lands.	Crosses active agricultural plots.
x-13	1.98	Riverside	North-to-south segment that travels through agricultural lands; crosses one canal.	Crosses active agricultural plots.
x-14	1.38	Riverside	Diagonal segment that crosses private lands.	Crosses other transmission lines and distribution lines; bisects one orchard. Challenges have been identified for some predecessor segments.
x-15	1.44	Riverside	Diagonal segment that crosses BLM lands; adjacent to Western Area Power Administration (WAPA) transmission lines.	Challenges have been identified for predecessor segments.
x-16	2.31	Riverside	Diagonal segment that primarily crosses BLM lands; adjacent to a proposed solar energy facility; adjacent to WAPA transmission lines.	No constraints.
x-17	N/A	Riverside	Diagonal segment that crosses private and BLM lands, partially within a utility corridor. Crosses directly through an existing solar energy facility.	Bisects an existing solar energy facility; crosses directly through rows of solar panels. Obtaining a ROW across an existing solar field is improbable. The Blythe VORTAC structure is west of the segment.
x-18	0.85	Riverside	North-to-south segment on BLM lands adjacent to a proposed solar facility.	The Blythe airport VORTAC facility is east of the segment. This is a potentially redundant segment.
x-19	1.15	Riverside	North-to-south segment that travels through BLM lands and across a proposed solar energy facility.	Crosses an active ROW request area for a proposed energy facility. Challenges have been identified for predecessor segments.
ca-01	6.65	Riverside	East-to-west segment through agricultural lands, south of Blythe city limits; parallels a long canal; crosses six canals and numerous active agricultural plots.	Bisects an agricultural facility; adjacent to two additional agricultural facilities, including a very large area with numerous buildings.
ca-02	3.38	Riverside	East-to-west segment through agricultural and BLM lands, south of Blythe city limits; parallels two canals for most of the segment's length and crosses two canals.	Scattered residences in general area.
ca-03	3.47	Riverside	East-to-west segment; crosses through the Desert Quartzsite solar project footprint.	Crosses an active right-of-way (ROW) request for a proposed solar facility. Crosses areas of loose sand known to have BLM sensitive plant species <i>Eriastrum harwoodii</i> .
ca-04	0.97	Riverside	Colorado River crossing south of Interstate 10 (I-10) that crosses BLM, State, and private lands; crosses one canal.	Line would need to route around the El Paso Natural Gas facility
ca-05	6.64	Riverside	East-to-west segment through agricultural and developed lands, south of Blythe city limits; crosses two canals.	Existing homes and industrial sites provide a challenge to site tower locations and maintaining separation from buildings; an existing distribution line is located on south side of West 16th Avenue. A landing strip is just north of the middle of the segment. Bisects one residence and two agricultural facilities, including a large warehousing/distribution facility; proximate to two residences and four agricultural facilities, including a large agricultural processing/operational facility; crosses numerous active agricultural plots.

Segment	Lenght (miles)	County	Segment Description	Siting Constraints
ca-06	2.61	Riverside	East-to-west segment through agricultural and BLM lands; crosses one canal.	Close to one agricultural facility; bisects a large orchard. Challenges have been identified for segment ca-05as a predecessor to this segment.
ca-07	3.15	Riverside	East-to-west segment that travels northwest through BLM and private lands.	Endpoint encroaches on an existing solar energy facility at the junction of alternatives ca-08 and x-17. The segment also may slightly intersect the active ROW request for a proposed solar project.
ca-08	N/A	Riverside	East-to-west segment that travels through BLM and private lands with an existing solar facility.	Routes directly through an existing solar facility. Obtaining a ROW across an existing solar field is improbable. The "Blythe VORTAC" facility is north of the segment. The segment crosses areas of loose sand known to have BLM sensitive plant species Eriastrum harwoodii. In this area, the species is most common close to the substation, so any route would have a chance of affecting the species.
ca-09	2.93	Riverside	East-to-west segment that travels through BLM lands; the entire segment travels through or adjacent to a proposed solar energy facility.	Crosses an active ROW request area for a proposed energy facility within the West-wide Energy Corridor. Although this is a proposed project, obtaining a ROW across a solar field is improbable. The segment crosses areas of loose sand known to have BLM sensitive plant species <i>Eriastrum harwoodii</i> . In this area, the species is most common close to the substation, so any route would have a chance of affecting that species
i-01	8.33	La Paz	Alternative Route Segment. Short segment that would follow I-10 to the south	Limited constraints, visual impacts from I-10
i-02	3.17	La Paz	Alternative Route Segment. Short segment that would follow I-10 to the south	Limited constraints, visual impacts from I-10
i-03	20.09	La Paz	Alternative Route Segment. Short segment that would follow I-10 to the south	Limited constraints, visual impacts from I-10
i-04	10.4	La Paz	Alternative Route Segment. Segment would follow I-10 to the south and would avoid the Kofa NWR crossing.	Limited constraints, visual impacts from I-10
i-05	2.84	La Paz	Alternative Route Segment. Segment would follow I-10 to the south and would avoid the Kofa NWR crossing.	Limited constraints, visual impacts from I-10
i-06	7.23	La Paz / CRIT	Alternative Route Segment. Segment would follow I-10 to the south.	With previous segments qs/qn would be in close proximity of/crossing the Blythe/Quartzsite population centers, largely paralleling I-10 to the south and eventually connecting to Colorado River Substation
i-07	6.35	La Paz	Alternative Route Segment. Segment would follow I-10 to the south.	With previous segments qs/qn would be in close proximity of/crossing the Blythe/Quartzsite population centers, largely paralleling I-10 to the south and eventually connecting to Colorado River Substation
i-08e	0.58	La Paz	Alternative Route Segment. Segment would follow I-10 to the south.	With previous segments qs/qn would be in close proximity of/crossing the Blythe/Quartzsite population centers, largely paralleling I-10 to the south and eventually connecting to Colorado River Substation
i-08w	0.93	Riverside	Colorado River crossing adjacent to the southern side of I-10 that crosses BLM and private lands; crosses two canals.	Siting river crossing structures along i-08w would be extremely difficult because of existing infrastructure and buildings; conductors would most likely need to cross overhead of homes and other buildings. Obtaining a river crossing permit at this site would be very difficult with the agencies/jurisdiction given visual impacts and existing structures and improvements. Crosses 490 feet of critical habitat for the yellow-billed cuckoo. Bisects a large marina adjacent to the river; bisects one residence.
i-08s	1.18	La Paz	Alternative Route Segment. Segment would follow I-10 to the south.	Travels very close to one residence. Crosses multiple WAPA
i-09	3.08	Riverside	North-to-south segment that travels across private agricultural lands; crosses two canals. Then segment travels east-to-west through private property, south of I-10; parallels a local roadway for a distance.	transmission lines; bisects one agricultural facility and bisects four large orchards. Challenges have been identified for some predecessor segments.
i-10	4.02	Riverside	Segment travels east-to-west through private property and BLM lands, south of I-10; close to a residential community.	Proximate to area south of Nicholls Warm Springs residential area; bisects one agricultural facility; close to one residence.  Close proximity to Blythe Airport.
i-11	3.75	Riverside	Segment travels east-to-west and north-to-south through private and BLM lands, south of I-10.	Challenges have been identified for some predecessor segments.
cb-01	2.85	La Paz	Alternative route segment. One of a series of alternative segments that would avoid using existing or installing new towers in the Copper Bottom Pass area. Would follow an existing but difficult to navigate telecomunications road to a peak, then travel west along other alternative segments south of Copper Bottom Pass	Difficult construction. Will require new acces roads for part of the segment
cb-02	2.02	La Paz	Alternative route segment. One of a series of alternative segments that would avoid using existing or installing new towers in the Copper Bottom Pass area. Would primarily follow existing trails through Johnson Canyon	Comments mainly from the ATV community opposing this alternative.
cb-03	4.34	CRIT	Segment would cross CRIT lands to the north of Copper Bottom Pass  Alternative route segment. One of a series of alternative segments that would	Crosses CRIT land
cb-04	1.77	La Paz	avoid using existing or installing new towers in the Copper Bottom Pass area. Would cross disturbed terrain.	Crosses relatively undisturbed land, no designated utility corridors.
cb-05	4.43	La Paz	Alternative route segment. One of a series of alternative segments that would avoid using existing or installing new towers in the Copper Bottom Pass area. Would cross disturbed terrain.	Crosses relatively undisturbed land, no designated utility corridors.

Segment	Lenght (miles)	County	Segment Description	Siting Constraints
cb-06	1.91	La Paz	Alternative route segment. One of a series of alternative segments that would avoid using existing or installing new towers in the Copper Bottom Pass area. Would cross disturbed terrain.	Additional line lenght added to p-13 compared with cb-05
cb-07	2.82	La Paz	Segment would travel on BLM lands up a steep road to Cunningham Peak, then continue southwest until reaching the border of the Yuma Proving Ground (YPG), where it would turn west.	Technically very difficult for design of transmission line and access roads; access roads would be required through YPG land if built. Helicopter construction might be required in this area. Heavy blasting required for structure and access road construction. YPG has mentioned that towers create airspace interference issues for flights near its property. Most important environmental constraint is the presence of Tule Spring archaeological site adjacent to cb-07. The 7.5-minute map also shows petroglyphs in this area. This alternative bisects relatively undisturbed bighorn sheep habitat, and construction of the line on cb-07 would open to human presence an area that currently is remote.
cb-08	2.96	La Paz	This segment would be used only if ca-07 is used. Cb-08 would travel west and northwest on BLM lands, north of YPG.	YPG has mentioned that towers create airspace interference issues for flights near its property. This alternative bisects relatively undisturbed bighorn sheep habitat.
cb-09	7.64	La Paz	This segment would be used only if ca-07 is used. Cb-09 would travel west and southwest on BLM lands, north of YPG.	Adjacent to YPG land. New access roads could be constructed to the north of YPG to avoid this land. YPG has mentioned that towers create airspace interference issues for flights near its property. This alternative bisects relatively undisturbed bighorn sheep habitat.
cb-10	2.03	La Paz	This segment would connect segment p-14 with through an alternative Colorado River crossing, north of the existing line with segment x-11	No existing utility corridor.
qn-01	0.59	La Paz	Segment crossing I-10 to connect with segment qn-02 around Quartzsite	Undue socioeconomic and visual impact. Two additional highway crossings
qn-02	10.83	La Paz	Segment after I-10 crossing, north of Quartzsite, crossing Highway 95 and then again I-10 to connect with segment i-06, south of I-10.	Undue socioeconomic and visual impact. Two additional highway crossings
qs-01	3.07	La Paz	Segment would connect the I-10 alternative traveling parallel to I-10. Alignment located to the east of Highway 95 and would connext to segment x-07 heading south or qs-02 heading west	In close proximity of/crossing the Quartzsite population center. Undue socioeconomic and visual impact.
qs-02	4.83	La Paz	Segment crossing high-density population center of Quartzsite largely paralleling I-10 to the south	In close proximity of/crossing the Quartzsite population center. Undue socioeconomic and visual impact.



A1610012

# APPENDIX F

# PRELIMINARY ELECTRIC AND MAGNETIC FIELDS MANAGEMENT PLAN



# EMF Study Report Delaney-Colorado River

Fen West Link Transmission Line Project September 12, 2016

Prepared by: Greg Williams, PE & Jerry Ellsworth, PE 701 Xenia Avenue South, Suite 600 Minneapolis, MN 55416-3636

#### FIELD MANAGEMENT PLAN FOR TEN WEST LINK TRANSMISSION PROJECT

#### **Table of Contents**

I.	EXECUTIVE SUMMARY3
II.	TRANSMISSION LINE MAGNETIC FIELD REDUCTION MEASURES4
III.	PROJECT DESCRIPTION5
IV.	FIELD REDUCTION MEASURES CONSIDERED FOR THE DCRT PROJECT
	Table IV-1: Locations of Magnetic Field Reduction Measures6
	Table IV-2: Low-Cost Reduction Measures Adopted or Rejected7
	Table IV-3: Comparison of Magnetic Field Levels (Existing vs. Proposed Design)8
V.	FINAL RECOMMENDATIONS FOR REDUCING MAGNETIC FIELDS9
	APPENDIX A
	EMF Charts10-16 APPENDIX B
	Circuits IDS/Locations
	APPENDIX C
	Structure Types18-20
	APPENDIX D
	Location Maps21

#### I. EXECUTIVE SUMMARY

Delaney Colorado River Transmission (DCRT) submits this Field Management Plan (FMP) with its application requesting a Certificate of Public Convenience and Necessity (Application) for its proposed Ten West Link Project (Ten West Link or Project). The Ten West Link is an approximately 114 mile-long 500 kV electric transmission line between Delaney Substation near Tonopah, Arizona and the Colorado River Substation located near Blythe, California. Operation of the proposed line may require upgrades to transmission facilities by other utilities in both Arizona and California.

DCRT submits this FMP consistent with the California Public Utilities Commission (CPUC or Commission) General Order 131-D, Section X.A, which requires an Application to "describe the measures taken or proposed by the utility to reduce the potential exposure to electric and magnetic fields generated by the proposed facilities."

For Ten West Link, introducing a new 500 kV transmission line on a horizontal tower next to an existing transmission line would create a shared right of way edge and a new outside right of way edge. The magnetic field at the new outside right of way edge will vary higher or lower depending on power flow and line design. The magnetic field at the shared right of way edge can usually be lowered by optimizing the phasing.

As described below, the "no-cost" and "low-cost" magnetic field reduction measures proposed to be incorporated into the design of the proposed Project are:

- Utilize a typical horizontal 500 kV tower height of 165 feet. (Magnetic field models
  in this document are based on both a 155-foot tower height and a 165-foot tower
  height. The 165 foot structures help to lower the magnetic field strength.) See
  Appendix C for conceptual tower drawings.
- Install 500 kV transposition towers near the locations of existing transposition towers for the Southern California Edison (SCE) Colorado River-Palo Verde (CRPV), formally the Devers-Palo Verde No 1 (DPV1) 500 kV transmission line. (Transposition towers are used to re-arrange the phase conductors on a transmission line; transposition structures enable magnetic field reduction as well as phase impedance equalization across the line route.)
- Use of existing corridors.

DCRT's plan for reducing magnetic fields for the proposed Project is consistent with the CPUC's EMF policy and with all other applicable national and state standards for new electrical facilities.

## II. TRANSMISSION DESIGN WITH MAGNETIC FIELD REDUCTION MEASURES

DCRT identified methods to reduce magnetic fields unique to this facility and incorporated these techniques into its measures to reduce fields wherever available and practical in accordance with the Commission's Decision 06-01-042.

In 2006, the Commission issued Decision 06-01-042, which reaffirmed its existing policy of low-cost/no-cost principles to mitigating EMF exposure. The Commission uses the benchmark of 4% of total project costs for EMF mitigation. Low cost-measures have been defined as mitigation measures that cost 4% or less of the total Project costs.

Pursuant to the CPUC's Decision 06-01-042, DCRT utilized a four-stage process to select and implement "no-cost" and "low-cost" magnetic field reduction measures. The measures are implemented in the following order:

- 1. "No-Cost" option(s) that can be uniformly applied to the entire Project. "Phasing" will almost always be a selected option if electrically and physically possible.
- 2. Existing public schools or those under development (if known) should be the next priority for mitigation. Measures should be applied equitably along the Project route if multiple schools are located in the area of the magnetic fields. It is possible that all the "low-cost" funds available to the Project (i.e., below 4% of the sum of the cost of all Project elements) will be expended upon measures near schools leaving no funds available for other "low-cost" measures in other areas.
- 3. Residential, public parks, commercial, and industrial developments should be considered for "low-cost" mitigation techniques only if the "low-cost" measures can be applied equitably to ensure fairness.
- 4. Land that is not expected to be developed need not have any "low cost" measures applied, for example:
  - State Parks
  - US Forest Service Land
  - US Bureau of Land Management Land
  - Formally Designated "Open Space"

The strength of magnetic fields at various distances from power line facilities can be calculated and/or measured. The use of computer programs can expedite the performance of calculations needed to estimate the value of the magnetic fields at any given point along the transmission line. For this purpose, DCRT will use the Bonneville Power Administration's Corona and Field Effects Program (CAFE) for field calculations. It can model the magnetic fields from conductors and cables. By utilizing this program, designers can determine the best options for reducing EMF at "no-cost" and "low-cost." CAFE will be used to model the transmission lines for purposes of examining various magnetic field reduction measures only.

#### III. PROJECT DESCRIPTION

Ten West Link is an approximately 114 mile-long, 500 kV electric transmission line running between the existing Delaney Substation in Tonopah, Arizona, and the existing Colorado River Substation west of Blythe, California. Once constructed and energized, the transmission line, in combination with other existing and planned transmission infrastructure, will establish a desirable second contiguous 500 kV transmission connection from the Palo Verde trading hub to the Devers substation, located approximately 100 miles to the northwest of the Colorado River substation and one of the key substations serving the Southern California load.

Ten West Link's location is significant because it will provide the California market with increased access to the Palo Verde trading hub, which is the most liquid market hub in the Western Interconnection, thereby lowering costs to California customers, increasing access to renewables in Imperial Valley for California customers by reducing congestion on other lines in the region, delaying the need for additional fossil fuel fired combustion turbines, and enhancing regional reliability. Furthermore, the Project will also provide reliability and operational benefits to the electric consumers in Arizona and California. Operations of the proposed line may require that upgrades be made to certain electrical transmission facilities owned by other utilities at both Colorado River and Delaney substations. The upgrades and additions will be in existing facilities and no additional expansion is foreseen at this time.

#### IV. FIELD REDUCTION MEASURES CONSIDERED FOR THE DCRT PROJECT

For examining "magnetic field reduction" measures, this Project is looking at seven areas by considering changes in characteristics of transmission line corridors (*i.e.*, changes in the number of transmission lines within the corridor, changes to tower type for the proposed line); *see* Tables IV-1, IV-2, and IV-3, below for detailed information.

Table IV-1 Locations of Magnetic Field Reduction Measures

Loc No.	State	Approximate Location	Nearest Crossing Streets	Circuit Names within the Corridor (South to North)	Comments
1	AZ	North of Delaney Substation, west of Tonopah, AZ.	Indian School Rd, Tonopah, AZ ~.75 mile north of Delaney Substation	<ol> <li>Ten West Link 500 kV</li> <li>Delaney Loop-in 69 kV</li> <li>Colorado River-Palo Verde 500 kV</li> <li>Delaney-Sun Valley 500 kV</li> </ol>	Section of corridor looking ahead to Colorado River lines are east to west.
2	AZ	Alternative 1 west of Delaney Substation, west of Tonopah, AZ.	491st Ave & Thomas Rd, Tonopah, AZ	<ul><li>5. Harquahala-Palo Verde 500 kV</li><li>7. Harquahala Feeder 3 12.47 kV</li><li>1. Ten West Link 500 kV</li></ul>	Both Harquahala lines are delta configuration.
3	AZ	I-10 Utility Corridor.	Vicksburg Rd, Vicksburg, AZ, ~ 0.5 mile south of I- 10	1. Ten West Link 500 kV	
4	AZ	Kofa National Wildlife Refuge.	Kofa Wildlife Refuge, Pipeline Rd, 14 miles east of Hwy 95	<ol> <li>Ten West Link 500 kV</li> <li>Colorado River-Palo Verde 500kV</li> </ol>	CRPV horizontal configuration
7	AZ	Copper Bottom Pass.		<ol> <li>Ten West Link 500 kV</li> <li>Colorado River-Palo Verde</li> <li>500kV</li> </ol>	CRPV vertical configuration
8	CA	East of Blythe, CA in farmland.	Near 22nd Ave & 7th St, Ripley, CA	<ol> <li>Ten West Link 500 kV</li> <li>Colorado River-Palo Verde</li> <li>500kV</li> </ol>	CRPV horizontal configuration
10	CA	East of Colorado River Substation, west of Blythe, CA.	~1 mile east of Colorado River Substation	<ol> <li>Ten West Link 500 kV</li> <li>Colorado River-Palo Verde 500 kV</li> <li>Blythe Energy (Buck Blvd-Julian Hinds) 230 kV</li> </ol>	CRPV horizontal configuration

Ten West Link 500 kV - future Colorado River -Delaney Colorado River-Palo Verde 500 kV - formerly Devers to Palo Verde

Note: Field Modeling Assumptions

The "CAFE" program is used to evaluate the magnetic field characteristics of the proposed construction, and various magnetic field reduction alternatives. The models applicable to this Project are found in Appendix A. The magnetic field strength is calculated at a height of three feet above ground. The assumption is extended to flat terrain, average conductor sagging (average sagging is approximately equal to 1/3 of sagging plus minimum clearance to the ground), all towers and structures that are located adjacent to each other, and

conductors that are straight and infinitely long.

Calculations of resultant magnetic fields are expressed in units of milliGauss (mG), and represent the results of two-dimensional magnetic fields.

The Ten West Link 500 kV (Colorado River-Delaney) is the only circuit that is new, all other circuits are existing. The results in the magnetic field models are for purposes of comparison in evaluating magnetic field reduction measures only and cannot be assumed to represent actual mG levels that will be found at any particular point along the line route. In addition, because of the numerous and complex variables that affect magnetic field strength, DCRT makes no guarantee or representation that magnetic field levels presented in this document will in any way reflect the actual measured values once construction of the proposed line is completed. Line loading and phasing information for Blythe Energy 230 kV and Harquahala-Palo Verde 500 kV were not provided by the owners and were assumed. For modeling the year 2020, forecasting loadings are used; *see* Appendix B for circuit names and forecasted loading conditions. Typical minimum clearance of 53 feet for Ten West Link 500 kV transmission line was used.

Table IV-2
No Cost and Low Cost Reduction Measures Adopted or Rejected

Project Segment	Location (Street, Area)	Adjacent Land Use	Reduction Measure Considered	Measure Adopted? (Yes/No)	Reason(s) if not adopted	Estimated Cost to Adopt
Location 1	North of Delaney Substation, just west of Tonopah, AZ.	Undeveloped Land-Desert Existing Transmission Line	Optimally Phased Structure Type & Ht.	Yes Yes		\$0 \$N/A
Location 2	West of Delaney Substation, just west of Tonopah AZ	Agricultural-Irrigated Cropland Existing Transmission Line	Optimally Phased Structure Type & Ht.	Yes Yes		\$0 \$N/A
Location 3	Interstate 10 (I- 10) utility corridor, AZ	Undeveloped Land-Desert	Optimally Phased Structure Type & Ht.	Yes Yes		\$0 \$N/A
Location 4	Kofa National Wildlife Refuge, AZ.	Undeveloped Land-Base of Mountains, Desert Commercial-Existing Pipeline Existing Transmission Line	Optimally Phased Structure Type & Ht.	Yes Yes		\$0 \$N/A
Location 7	Copper Bottom Pass, AZ.	Undeveloped Land- Mountain Pass Commercial-Existing Pipeline Existing Transmission Line	Optimally Phased Structure Type & Ht.	Yes Yes		\$0 \$N/A
Location 8	Just east of Blythe, CA.	Agricultural-Irrigated Cropland Existing Transmission Line	Optimally Phased Structure Type & Ht.	Yes Yes		\$0 \$N/A
Location 10	East of Colorado River Substation, west of Blythe, CA.	Undeveloped Land-Desert Existing Transmission Line	Optimally Phased Structure Type & Ht.	Yes Yes		\$0 \$N/A

Table IV-3
Comparison of Magnetic Field Levels (Existing vs. Proposed Design)

	MAGNETIC FIELD LEVELS											
			IDE EDGE OF IT TO THE TV		OUTSIDE EDGE OF ROW OPPOSITE TO THE TWL LINE <sup>2</sup>							
STATE	AREA LOCATION	EXISTING (mG)	PROPOSED (mG)	EFFECT ON MF	EXISTING (mG)	PROPOSED (mG)	EFFECT ON MF					
AZ	1	22.3	32.2	Increased	24.2	23.5	Decreased					
AZ	2	15.8	17.5	Increased	10.00	30.5	Increased					
AZ	3	0.0	29.9	Increased	0.0	29.9	Increased					
AZ	4	52.7	31.9	Decreased	52.7	37.6	Decreased					
AZ	7	55.6	26.7	Decreased	30.1	17.4	Decreased					
CA	8	60.7	32.2	Decreased	60.7	42.8	Decreased					
CA	10	51.5	31.4	Decreased	16.9	17.1	Increased					

#### Notes:

- The existing and proposed ROW edges are not the same location. These values represent the side where the future TWL Line will be built. The existing value is the current ROW edge, the proposed value is either 200 ft. or 250 ft. away.
- 2 This ROW edge is the same location always at the opposite side of the future TWL line.

#### V. FINAL RECOMMENDATIONS FOR REDUCING MAGNETIC FIELDS

The following "no-cost" and "low-cost" measures are proposed for this Project:

- Use more ground clearance with taller 500 kV towers, comparable to the existing Colorado River-Palo Verde (formerly DPV1) towers.
- Installing 500 kV transposition towers at relatively the same locations as the existing transposition towers for Colorado River-Palo Verde (formerly DPV1). The transposition towers would ensure optimal phasing for the entire route.
- Optimally phase proposed 500 kV transmission line with the existing 500 kV transmission line.
- Using the existing corridors in Locations 1, 2, 4, 7, 8, and 10.

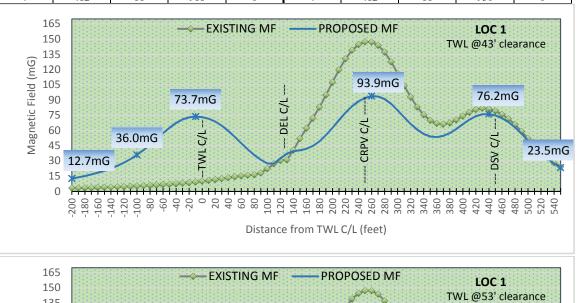
Other magnetic fields reduction measures not used for one or more of the following reasons:

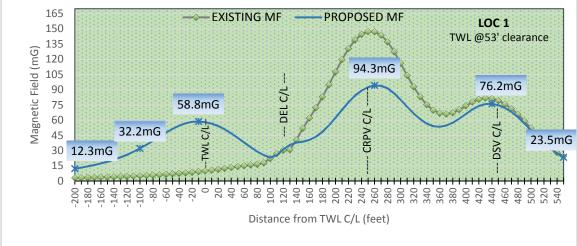
- The measure does not reduce the magnetic fields from the proposed line more than 20%.
- The measure is not a "no-cost" and "low-cost" option.
- The measure does not meet DCRT's engineering and safety requirements.

#### **APPENDIX A**

#### A. Appendix A: Field Model for the Proposed Design of Location 1

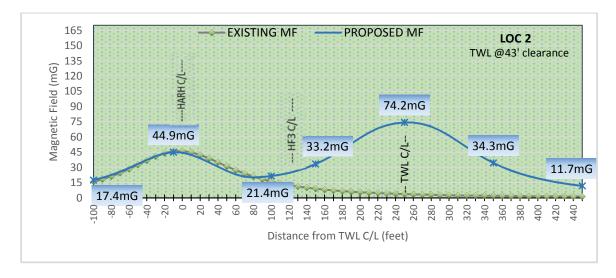
	EX	ISTING RO	)W		PROPOSED ROW				
Circuit	X (ft.)	Y (ft.)	Current	Current	Circuit	X (ft.)	Y (ft.)	Current	Current
ID			(amps)	Angle	ID			(amps)	Angle
				(deg)					(deg)
					1	-38	81	1081	120
					1	0	81	1081	0
					1	38	81	1081	240
6	122	38.3	501	0	6	122	38.3	496	0
6	122	43.3	501	240	6	122	43.3	496	240
6	122	48.3	501	120	6	122	48.3	496	120
6	128	38.3	501	0	6	128	38.3	496	0
6	128	43.3	501	240	6	128	43.3	496	240
6	128	48.3	501	120	6	128	48.3	496	120
2	218	65	1920	120	2	218	65	1268	120
2	250	65	1920	0	2	250	65	1268	0
2	282	65	1920	240	2	282	65	1268	240
4	418	66	968	240	4	418	66	930	240
4	450	66	968	120	4	450	66	930	120
4	482	66	968	0	4	482	66	930	0

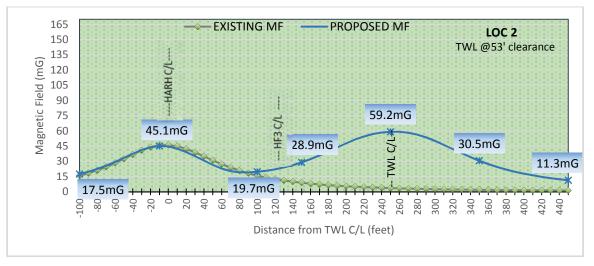




#### B. Appendix A: Field Model for the Proposed Design of Location 2

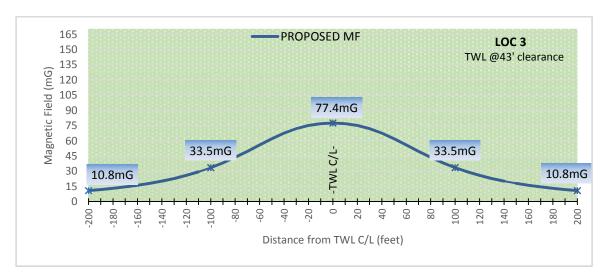
	EX	ISTING RO	)W		PROPOSED ROW				
Circuit	X (ft.)	Y (ft.)	Current	Current	Circuit	X (ft.)	Y (ft.)	Current	Current
ID			(amps)	Angle	ID			(amps)	Angle
				(deg)					(deg)
5	-16	65	1146	240	5	-16	65	1146	240
5	16	79	1146	0	5	16	79	1146	0
5	-16	93	1146	120	5	-16	93	1146	120
7	126.9	30.3	3.0	0	7	126.9	30.3	3.0	0
7	123.1	32.8	3.0	120	7	123.1	32.8	3.0	120
7	126.9	35.3	3.0	240	7	126.9	35.3	3.0	240
					1	212	81	1081	120
					1	250	81	1081	240
					1	288	81	1081	0

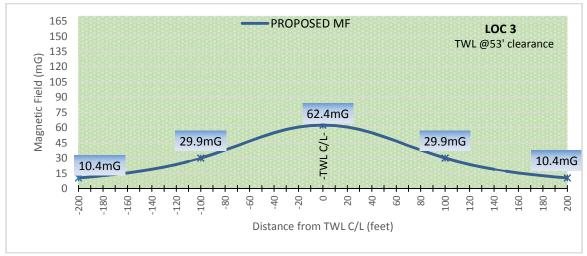




#### C. <u>Appendix A: Field Model for the Proposed Design of Location 3</u>

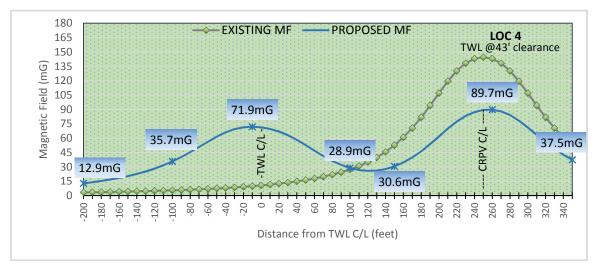
	EXISTING ROW					PROPOSED ROW			
Circuit	X (ft.)	Y (ft.)	Current	Current	Circuit	X (ft.)	Y (ft.)	Current	Current
ID			(amps)	Angle	ID			(amps)	Angle
				(deg)					(deg)
					1	-38	81	1081	0
					1	0	81	1081	120
					1	38	81	1081	240

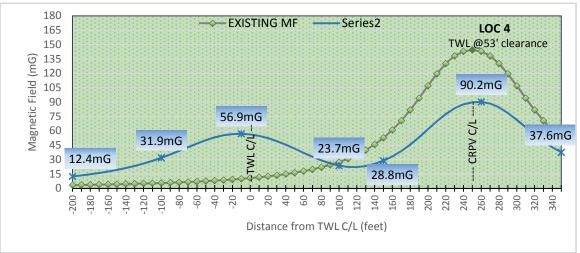




#### D. <u>Appendix A: Field Model for the Proposed Design of Location 4</u>

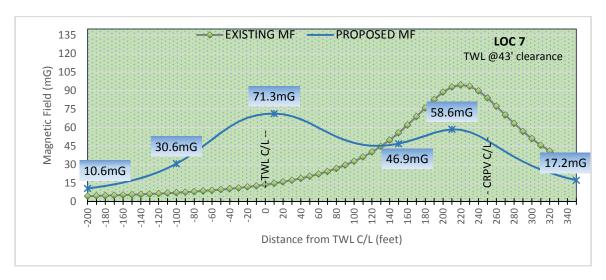
	EX	ISTING RO	)W			PRO	OPOSED R	OW		
Circuit ID	X (ft.)	Y (ft.)	Current (amps)	Current Angle (deg)	Circuit X (ft.) Y (ft.) Current C (amps) A					
					1	-38	81	1081	240	
					1	0	81	1081	120	
					1	38	81	1081	0	
2	218	65	1920	240	2	218	65	1268	240	
2	250	65	1920	120	2	250	65	1268	120	
2	282	65	1920	0	2	282	65	1268	0	

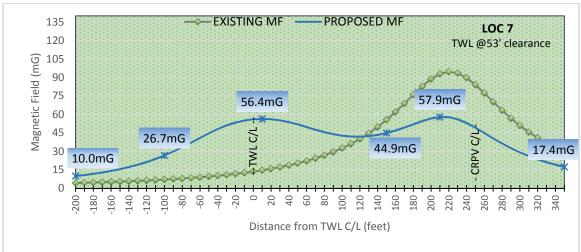




#### E. <u>Appendix A: Field Model for the Proposed Design of Location 7</u>

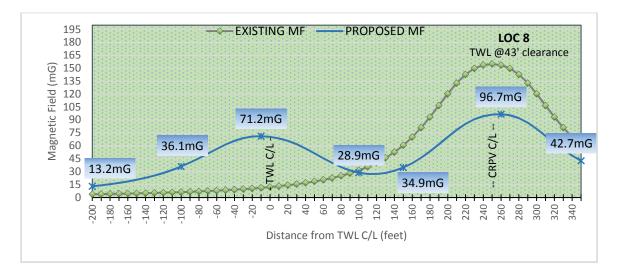
EXISTING ROW				PROPOSED ROW					
Circuit ID	X (ft.)	Y (ft.)	Current (amps)	Current Angle (deg)	Circuit ID	X (ft.)	Y (ft.)	Current (amps)	Current Angle (deg)
					1	-38	81	1081	0
					1	0	81	1081	240
					1	38	81	1081	120
2	221	67	1920	120	2	221	67	1268	120
2	221	104.5	1920	240	2	221	104.5	1268	240
2	221	142	1920	0	2	221	142	1268	0

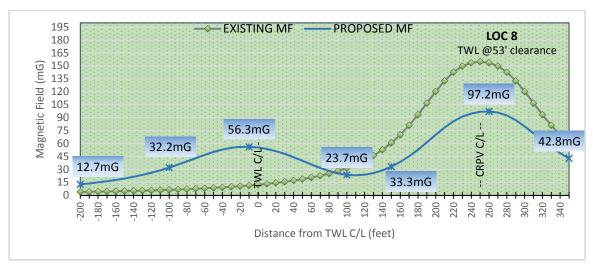




#### F. Appendix A: Field Model for the Proposed Design of Location 8

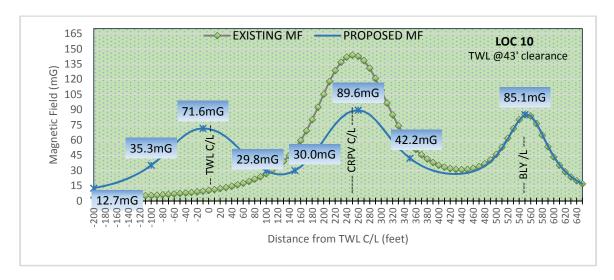
	EXISTING ROW				PROPOSED ROW				
Circuit ID	X (ft.)	Y (ft.)	Current (amps)	Current Angle (deg)	Circuit ID	X (ft.)	Y (ft.)	Current (amps)	Current Angle (deg)
					1	-38	81	1081	0
					1	0	81	1081	240
					1	38	81	1081	120
2	213.5	65	1920	0	2	213.5	65	1268	0
2	250	65	1920	240	2	250	65	1268	240
2	286.5	65	1920	120	2	286.5	65	1268	120

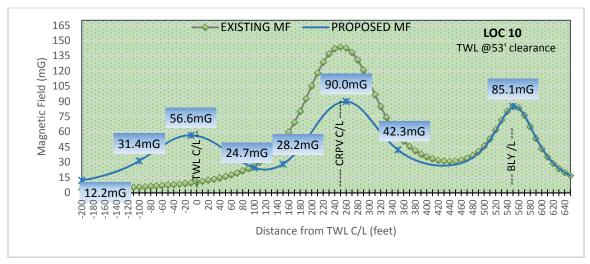




#### G. Appendix A: Field Model for the Proposed Design of Location 10

	EXISTING ROW				PROPOSED ROW				
Circuit ID	X (ft.)	Y (ft.)	Current (amps)	Current Angle (deg)	Circuit ID	X (ft.)	Y (ft.)	Current (amps)	Current Angle (deg)
					1	-38	81	1081	240
					1	0	81	1081	120
					1	38	81	1081	0
2	218	65	1920	240	2	218	65	1268	240
2	250	65	1920	120	2	250	65	1268	120
2	282	65	1920	0	2	282	65	1268	0





#### **APPENDIX B**

## <u>Appendix B: Circuit Names, ID, and Year 2020 Forecasted Loading Conditions Before and After the Project</u>

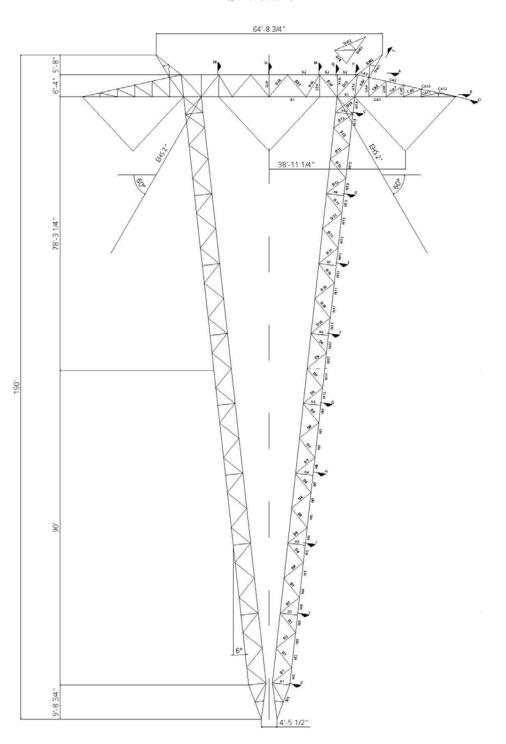
Gine it		Before Ten West Link	After Ten West Link
Circuit ID	Circuit Names within the Corridor	Loading (Amps)	Loading (Amps)
1	Ten West Link (future - Colorado River-Delaney) 500kV	N/A	1081
2	Colorado River-Palo Verde (formerly DPV1) 500 kV	1920	1268
3	Blyth Energy 230 kV (Buck BlvdJulian Hinds)	1241	1241
4	Delaney-Sun Valley 500 kV	968	930
5	Harquahala-Palo Verde 500 kV,	1146	1146
6	Delaney Loop-in 69 kV	501	496
7	Harquahala Feeder 3 12.47 kV	3	3

#### Note:

- 1. Before Ten West Link indicates the year 2020 forecasted loading conditions.
- 2. Circuits 2, 4, and 6 loading conditions change when Ten West Link is energized, circuits 3, 5, and 7 do not change.
- 3. Forecasting data is based upon DCRT scenarios representing 2016 load forecasts (DCRT and neighboring utilities) for the year 2020. The forecasting data is subject to change depending upon availability of generations, load increases, changes in load demand, and by other factors.
- 4. Phasing for circuit 5 and loadings for circuits 3 and 5 were not provided by the owner or available. Maximum generation plant loadings and phasing is assumed.

# **APPENDIX C Proposed Structure Configurations**

Figure C-1
Typical 500kV Single Circuit Guyed-V
Structure



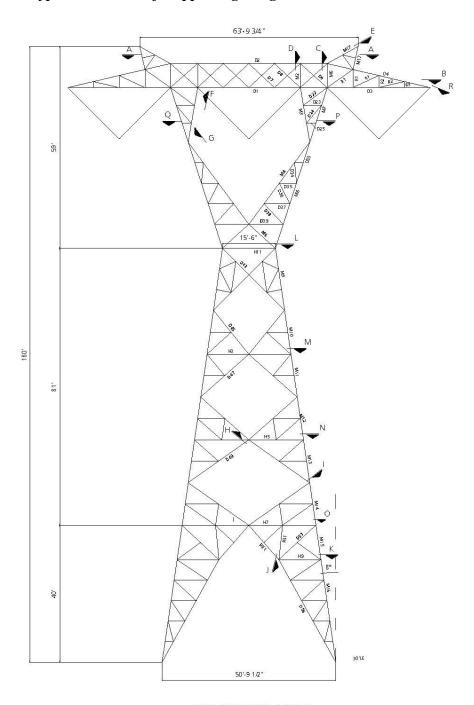
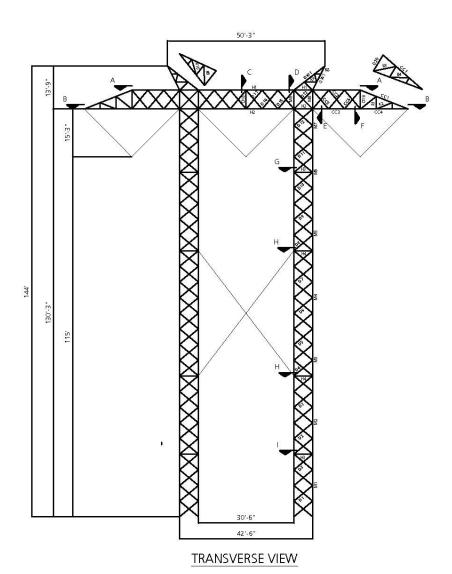


Figure C-2
Typical 500 kV Self-Supporting Tangent Structure

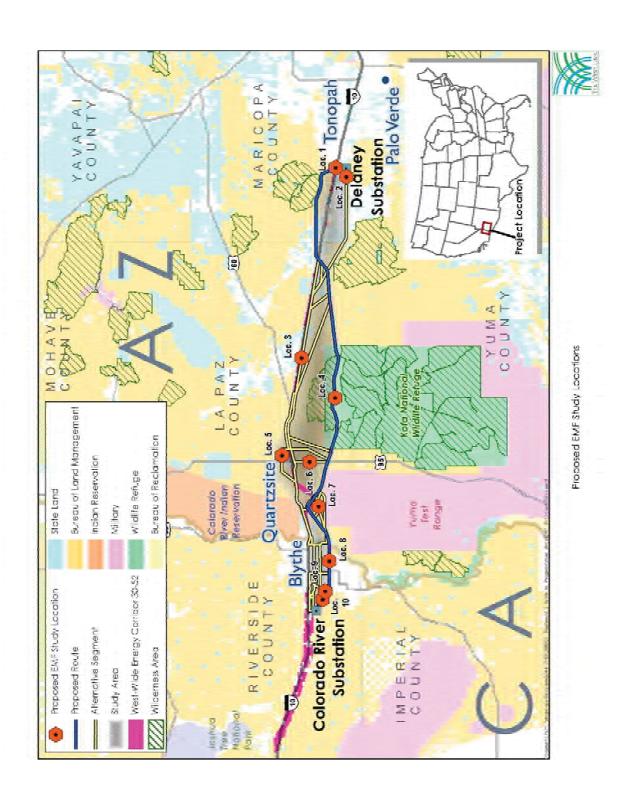
TRANSVERSE VIEW

Figure C-3
Typical 500kV Single-Circuit Two-Legged Structure



APPENDIX D

Map Showing Proposed and Alternative Line Routes





A1610012

# APPENDIX G ORGANIZING DOCUMENTS

#### State of California

Secretary of State

#### **CERTIFICATE OF REGISTRATION**

I, ALEX PADILLA, Secretary of State of the State of California, hereby certify:

That on the 14th day of September, 2015, DCR TRANSMISSION, L.L.C., complied with the requirements of California law in effect on that date for the purpose of registering to transact intrastate business in the State of California; and further purports to be a limited liability company organized and existing under the laws of Delaware as DCR TRANSMISSION, L.L.C. and that as of said date said limited liability company became and now is duly registered and authorized to transact intrastate business in the State of California, subject, however, to any licensing requirements otherwise imposed by the laws of this State.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this day of September 15, 2015.



ALEX PADILLA Secretary of State

#### LLC-5

#### Application to Register a Foreign Limited Liability Company (LLC)

To register in California an LLC from another state, country or other place, fill out this form, and submit for filing along with:

- A \$70 filing fee, and
- A certificate of good standing, issued within the last six (6) months by the agency where the LLC was formed.
- A separate, non-refundable \$15 service fee also must be included, if you drop off the completed form. .

Important! LLCs in California may have to pay a minimum \$800 yearly tax to the California Franchise Tax Board. For more information, go to https://www.ftb.ca.gov.

Registered LLCs cannot provide in California "professional services," as defined by California Corporations Code sections 13401(a) and 13401.3.

201525710580

Secretary of State State of California SEP 14 2015 65

This Space For Office Use Only

For questions about this form, go to www.sos.ca.gov/business/be/filing-tips.htm

① a.	DCR Transmission, L.L.C.							
	LLC Name	List the LLC name you use now (exactly as listed on your certificate of good standing)						
b.								
	Alternate Name	If the LLC name in Item 1a does not comply with California Corporations Code section 17701.08; list an alternate name to be used in California exactly as it is to appear on the records of the California Secretary of State. The alternate name must include: LLC, L.L.C., Limited Liability Company, Limited Liability Co., Ltd. Liability Co. or Ltd. Liability Company; and may not include: bank, trust, trustee, incorporated, inc., corporation, or corp., insurer, or insurance company. For general entity name requirements and restrictions, go to www.sos.ca.gov/business/be/name-availability.htm.						

- a. Date your LLC was formed (MM, DD, YYYY): U8, 13, 2015
  - b. State, country or other place where your LLC was formed: Delaware
  - c. Your LLC currently has powers and privileges to conduct business in the state, country or other place listed above.

Service of Process (List a California resident or a California registered corporate agent that agrees to be your initial agent to accept service of process in case your LLC is sued. You may list any adult who lives in California. You may not list an LLC as the agent. Do not list an address if the agent is a California registered corporate agent as the agent's address for service of process is already on file.)

a. CT Corporation System Agent's Name CA Agent's Street Address (if agent Is not a corporation) - Do not list a P.O. Box State City (no abbreviations) Zip

If the agent listed above has resigned or cannot be found or served after reasonable attempts, the California Secretary of State will be appointed the agent for service of process for your LLC.

#### **LLC Addresses**

4	а	591 West Putnam Avenue	Greenwich	CT	06830
	٠.	Street Address of Principal Executive Office - Do not list a P.O. Box	City (no abbreviations)	State	Zip
	b.	,		CA	
		Street Address of Principal Office in California, if any - Do not list a P.O. Box	City (no abbreviations)	State	Zip
	Ç.				
		Mailing Address of Principal Executive Office, if different from 4a or 4b	City (no abbreviations)	State	Zip

#### Read and sign below:

I am authorized to sign this document under the laws of the state, country or other place where this LLC was formed.

David Arhia Chief Financial Officer Your business title Print your name here Make check/money order payable to: Secretary of State By Mail Drop-Off Upon filing, we will return one (1) uncertified copy of your filed Secretary of State Secretary of State document for free, and will certify the copy upon request and Business Entities, P.O. Box 944228 1500 11th Street., 3rd Floor Sacramento, CA 94244-2280 payment of a \$5 certification fee. Sacramento, CA 95814

Corporations Code §§ 17701.04, 17701.08, 17708.02, Revenue and Taxation Code § 17941 LLC-5 (REV 01/2014)

2014 California Secretary of State www.scs.ca.gov/business/be <u>Delaware</u>

Page 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF

DELAWARE, DO HEREBY CERTIFY "DCR TRANSMISSION HOLDINGS, L.L.C." IS

DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD

STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS

OFFICE SHOW, AS OF THE FOURTEENTH DAY OF SEPTEMBER, A.D. 2015.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE BEEN PAID TO DATE.

5803055 8300 SR# 20150116782

You may verify this certificate online at corp.delaware.gov/authver.shtml

Jeffrey W. Bulliock, Secretary of State

Authentication: 10059434

Date: 09-14-15

I hereby certify that the foregoing transcript of \_\_\_\_\_\_ page(s) is a full, true and correct copy of the original record in the custody of the California Secretary of State's office.

SEP 15 2015 65

Date:\_\_\_\_\_

ALEX PADILLA, Secretary of State



#### Welcome to California

Congratulations on the registration of your limited liability company with the California Secretary of State. Please see below for important information.

#### **Required Statement of Information**

California law requires limited liability companies to keep their public record updated by filing a Statement of Information with the California Secretary of State.

Limited liability companies must file a complete Statement of Information (Form LLC-12) within the first 90 days of filing the Articles of Organization or Application to Register, and then every 2 years after that before the end of the month of the registration date.

Statements of Information for limited liability companies must be submitted on paper to the California Secretary of State, and can be mailed or delivered in person (drop off) to the Sacramento office. Additional information regarding Statements of Information, including forms, instructions and current fees is available at www.sos.ca.gov/business-programs/businessentities/statements.

Current processing times Information for Statements of may be found www.sos.ca.gov/business-programs/business-entities/processing-times.

#### Other Business Information and Resources

All business entities are subject to state and federal tax laws. You may wish to contact the following agencies to assist you with these issues:

- Internal Revenue Service www.irs.gov or call (800) 829-1040 for forms and issues concerning Federal tax, employer identification numbers, subchapter S elections
- Franchise Tax Board www.ftb.ca.gov or call (800) 852-5711 for forms and issues concerning franchise tax and state income tax requirements
- State Board of Equalization www.boe.ca.gov or call (800) 400-7115 for forms and issues concerning sales taxes or use taxes
- Employment Development Department www.edd.ca.gov or call (800) 300-5616 for forms and issues concerning employment and payroll taxes

Please refer to www.sos.ca.gov/business-programs/business-entities/resources for a list of other agencies you may need to contact to ensure proper compliance with the laws of the State of California. Please be aware that the California Secretary of State does not license limited liability companies. For licensing requirements, please contact the California city and/or county where the principal place of business is located and/or the state agency, or board with jurisdiction over the activities of the limited liability company





Business Entities, 1500 11th Street, 3rd Floor, Sacramento, CA 95814

#### **Customer Alert – Misleading Certificate of Status Solicitations**

Letters are being sent to businesses registered with the Secretary of State directing them to submit \$49.50, respond by a certain date, complete a form, and send the money and documentation to a private entity named "California State Corporations." According to the letter, California State Corporations will provide a "certificate of status." However, these Certificates of Status are fraudulent because only the Secretary of State can issue a Certificate of Status. An example of the form and fraudulent "certificate of status" are available through our website at www.sos.ca.gov/business-programs/customer-alerts/alert-misleading-solicitations.

A certification of the entity's status, also known as the Certificate of Status, only can be issued by the Secretary of State who is the official custodian of business entity records for the State of California. The fee for this certificate is \$5.00. The private entity has no affiliation or authorization to act on behalf of the State of California or the Secretary of State and is illegally issuing fraudulent Certificates of Status for entities registered with the California Secretary of State.

An official Certificate of Status can be obtained by submitting a request to the California Secretary of State's Sacramento office either in person or by mail. Instructions and fees for ordering a Certificate of Status can be obtained through our website at www.sos.ca.gov/business/be/information-requests.htm.

These solicitations <u>are not</u> being made by the California Secretary of State's office and <u>are not</u> being made by or on behalf of any governmental entity. Although a business entity can use an intermediary to submit filings, request a certificate of status, and pay fees to our office, no business is required to go through another private entity in order to obtain documents or certificates from the Secretary of State's office and no private entity can issue these documents.

#### **Action for Fraudulent Letters**

California businesses that receive one of these fraudulent solicitation letters or that have paid the company and received a fraudulent certificate should submit a written complaint along with the entire solicitation (including the solicitation letter, the outer and return envelopes, and all related documents if available, and a copy of the fraudulent certificate) to the California Attorney General, Public Inquiry Unit, P.O. Box 944255, Sacramento, California 94244–2550. A complaint form, which can be completed online and printed to mail, is available on the California Attorney General's website at www.oag.ca.gov/consumers.



PAGE 1

### The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF

DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT

COPY OF THE CERTIFICATE OF FORMATION OF "DCR TRANSMISSION,

L.L.C.", FILED IN THIS OFFICE ON THE THIRTEENTH DAY OF AUGUST,

A.D. 2015, AT 12:02 O'CLOCK P.M.

5803063 8100

151167551

Jeffrey W. Bullock, Secretary of State **AUTHENT CATION:** 2641370

DATE: 08-13-15

State of Delaware Secretary of State Division of Corporations Delivered 12:17 PM 08/13/2015 FILED 12:02 PM 08/13/2015 SRV 151167551 - 5803063 FILE

## OF DCR TRANSMISSION, L.L.C.

- 1. The name of the limited liability company is "DCR Transmission, L.L.C."
- 2. The address of its registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle, State of Delaware, 19801. The name of its registered agent at such address is The Corporation Trust Company.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Formation of DCR Transmission, L.L.C. on this 12<sup>th</sup> day of August, 2015.

/s/ Jerome C. Silvey
Jerome C. Silvey, as authorized person



A1610012

## APPENDIX H

# LIST OF IDENTIFYING PERMITS AND AUTHORIZATIONS REQUIRED

### Federal, State, and Local Permits

The Project conforms to or would amend all relevant resource management plans for the BLM field offices in Arizona and California. Additionally, it conforms to relevant federal, state, and local statutes, regulations, and plans. Tables 1-2 and 1-3 identify the potential federal, state, and local agencies' approvals, reviews, and permitting requirements identified to date for the proposed Project.

Table 1-2. Potential federal and tribal permits/authorizations/consultations required prior to construction

Agency	Jurisdiction and/or authorizing law	Authorization/Consultation/Permit
Bureau of Land Management (BLM)	Federal Land Policy and Management Act (FLPMA)  – Construction on or in lands administered by BLM	Plan of Development (POD); Application for Transportation and Utility Systems and Facilities on Federal Lands (SF 299) (Right-of-Way Grant)
	National Environmental Policy Act (NEPA)	Environmental Impact Statement (EIS), Resource Management Plan Amendment and Record of Decision (ROD)
	National Historic Preservation Act (NHPA) Section 110; Executive Order 11593	Cultural Class I and III surveys, Compliance with Section 110
	NHPA, Section 106 review (36 Code of Federal Regulations [CFR] 800)	Compliance with Section 106
U.S. Department of Defense – Army	U.S. Army Military Facilities	Right-of-Entry
U.S. Fish and Wildlife Service (USFWS)	Endangered Species Act (ESA) Section 7 Consultation, Biological Assessment	Certificate of Environmental Compatibility for the Kofa National Wildlife Refuge (NWR) Right-of-Way Grant – Crossing Kofa NWR Consultation for Section 7 of the ESA Biological Opinion/Incidental Take Permit (required to handle species) for Agassiz's desert tortoise ( <i>Gopherus agassizzii</i> ) Habitat Conservation Plans – Riverside County
U.S. Army Corps of Engineers (USACE)	Clean Water Act (CWA), Section 404/Rivers and Harbors Appropriation Act, Section 10 – Construction or operation of facilities that may result in a discharge of fill into jurisdictional waters, including wetlands or that require a crossing of a navigable water	Section 404 Permit – Preconstruction Notification for Nationwide Permit (NWP) Section 10 Permit – Power transmission line crossing of navigable waters
Federal Aviation Administration	Safe, Efficient Use and Preservation of the Navigable Airspace, 14 CFR Part 77	Determination of No Hazard based on an application Notice of Proposed Construction or Alteration
U.S. Bureau of Reclamation (Reclamation)	Construction on or in land administered by Reclamation	Right-of-Way Grant – Crossing Central Arizona Project Canal
Federal Communications Commission (FCC)	Licenses/permits related to FCC frequencies and paths	Telecomm Permit (as required)
Federal Energy Regulatory Commission (FERC)	Ratemaking for transmission facilities	Federal Power Act, Section 219, authorization for transmission rate incentives Federal Power Act, Section 205, acceptance of transmission revenue requirement and tariff

Agency	Jurisdiction and/or authorizing law	Authorization/Consultation/Permit
Colorado River Indian Tribes (CRIT)/ Bureau of Indian Affairs (BIA)		If CRIT lands are used: Land Occupational Use Conditional use permits for construction access, laydown areas, and predevelopment activities ROW Easement (BIA) Tribal Historical Preservation Officer (THPO) would be consulted

 Table 1-3. Potential state and local permits/authorizations/consultations required prior to construction

Agency	Jurisdiction and/or authorizing law	Authorization/Consultation/Permit
Arizona Corporation Commission (ACC)	Arizona Revised Statutes (A.R.S.) Title 40, Chapter 2, Article 6.2 (§§ 40-360 to 40-360.13), ACC Rules of Practice and Procedure Revised Statutes related to transmission, substation, and generation projects	Certificate of Environmental Compatibility needed for transmission lines greater than two poles and greater than 115 kV, or power generation facilities 100 MW or larger
	A.R.S. Title 40, Chapter 2, Article 4 (§§ 40-281 to 40-287), ACC Rules of Practice and Procedure Revised Statutes related to certificates for public service corporations	Certificate of Public Convenience and Necessity should the power of eminent domain be necessary
Arizona Department of Transportation	Arizona streets and highways: A.R.S. § 28-7053, Arizona Administrative Code (AAC) R17-3-501 to 509	Utility Crossing Permit, Permit for Use of Highway Right-of-Way (US 95 and I-10) Oversize/Overweight Class C Permit
Arizona Department of Agriculture	Native Plant Law (A.R.S. §§ 3-901 to 3-916)	Notice of Intent to Remove or Destroy Plants
Arizona State Historic Preservation Office (SHPO)	A.R.S. §§ 41-861 to 41-864 (applies to any archaeological and paleontological work)	Compliance with State Historic Preservation Act and Compliance with Section 106 of the NHPA
Arizona State Museum (ASM)	A.R.S. § 41-865	Permit to Disturb Human Remains or Funerary Objects
Arizona State Land Department	A.R.S. § 37-461	Right-of-Way/Right-of-Entry Permit required for survey and construction of transmission line within ROWs on State Trust Land
Arizona Game and Fish Department	U.S. Fish and Wildlife Coordination Act	Coordination with USFWS/BLM/USACE to minimize disturbance to or loss of special status wildlife species habitat and Scientific Collecting Permit for Biological Monitors
Arizona Department of Environmental Quality (ADEQ)	A.R.S. § 49-0255; AAC Title 18, Chapter 11	Arizona Pollutant Discharge Elimination System (ADEQ) Stormwater Permit for construction and operation activities affecting 1 acre or more
	Clean Water Act (CWA) (33 CFR Parts 320, 322, 323, 325)	State Water Quality Certification for construction across water resources (state review required for all federal Section 404 permits)
	AAC Title 18, Chapter 2, Article 6	Dust Control Plan (for La Paz County)
	Title 18, Chapter 14, Articles 102 and 103	Aquifer Protection Permit

Agency	Jurisdiction and/or authorizing law	Authorization/Consultation/Permit		
	Title 18, Chapter 8	Hazardous Waste Generator Registration Air Quality Permit for Harquahala Mountain Engine/Generator (if greater than 325 horsepower) – prior to engine installation		
Maricopa County	County roads and highways, flood control/drainage channels	Road/Highway Encroachment/Crossing Permit Flood Control/Drainage Channel Encroachment/Crossing Permit Floodplain Use Permit Oversize Permit Stationary Dust-Generating Source		
La Paz County	County roads and highways, flood control/ drainage channels	Overhead Utility Road Crossing Flood Control/Drainage Channel Encroachment/Crossing Permit		
Harquahala Irrigation District	District irrigation/drainage channels	Encroachment/Crossing Permit		
Maricopa County Air Quality Department	Maricopa County	Earthmoving Permit		
Southern California Edison (SCE)	SCE tariff	Interconnection Approval, Colorado River Substation		
Arizona Public Service (APS)	APS wire interconnection process	Interconnection Approval, Delaney Substation		
California Independent System Operator (CAISO)		Purpose and need for new transmission, substation, and generation projects		
California State Lands Commission	Division 6 of the California Public Resources Code – Construction of a transmission line on state lands	Right-of-Entry		
California Department of Fish and Wildlife (CDFW)	California Fish and Wildlife Code Section 1600 et seq. – Alteration of any streambed, drainage or lake	1601/1603 Permit, SAA		
	California Endangered Species Act – Take of state-listed threatened or endangered species	Consultation for take avoidance; no incidental take permit available for Federally Protected Species (FPS)		
	CDFW Code Sections 3511, 4700, 5050, and 5515	Consultation for take avoidance		
	CDFG Code Section 3503 – Migratory Bird Protection	Consultation		
	Native Plant Protection Act – Taking of endangered or rare native plants	Consultation		
	Natural Community Conservation Planning Act – Impacts to areas identified for conservation of natural communities and ecosystems	Consultation		
California Department of Transportation (Caltrans), District 8	California streets and highways Code 660-711.21 CCR 1411.1–1411.6	Overload Permit Road/Highway Encroachment/Crossing Permit (as required)		

Agency	Jurisdiction and/or authorizing law	Authorization/Consultation/Permit
California Department of Water Resources	Water crossings	Encroachment/Crossing Permit (as required)
California Department of Toxic Substances Control	Hazardous Waste Control Act of 1972	U.S. Environmental Protection Agency Hazardous Waste Generator ID
California Public Utilities Commission	California Public Utilities Code, Section 1001 et seq.	Certificate of Public Convenience and Necessity (CPCN) California Environmental Quality Act (CEQA) equivalent document/CEQA modifications to the EIS expected
California State Historic Preservation Office (SHPO)	Section 106 of the NHPA Review – Impacts to cultural resources, including those potentially eligible or eligible for listing on the National Register of Historic Places	Section 106 consultation, Cultural Resource Management Plan
California Air Resources Board (CARB)	Statewide – registration of air compressors, generators, concrete pumps, tub grinders, wood chippers, water pumps, drill rigs, rock drills, and welders.	Portable Engine Registration for Specified Non-Mobile Portable Engines
Riverside County	County roads and highways, flood control/drainage channels	Road/ Encroachment/Crossing Permit Flood Control/Drainage Channel Encroachment/Crossing Permit
Regional Water Quality Control	CWA, Section 401 – Impacts to surface water quality from construction activities	401 Certification/Storm Water Construction General Permit 99-08-DWD
Board, Region 7 (Colorado River Basin RWQCB)	CWA, Section 402 – Construction-related discharges to waters of the state, including construction projects that disturb more than 1 acre	National Pollutant Discharge Elimination System (NPDES) Permit
	Porter-Cologne Act – Construction-related discharge to waters of the state	Waste Discharge Requirements
Palo Verde Irrigation District	District irrigation/drainage channels	Encroachment/Crossing Permit
Mojave Desert Air Quality Management District	Eastern Riverside County – state-mandated emission limits for air compressors, generators, concrete pumps, tub grinders, wood chippers, water pumps, drill rigs, and welding machines.	Air Quality Permits for portable engines greater than 50 horsepower not registered under the CARB Portable Engine Registration Program (prior to installation of engine)
El Paso Natural Gas	Activities in area of pipeline	Pipeline Encroachment/Crossing Permit
Southern California Gas	Activities in area of pipeline	Pipeline Encroachment/Crossing Permit
AT&SF Railroad	Activities in area of railroad	Encroachment/Crossing Permit
Central Arizona Project	Water channel	Crossing permit
Western Electricity Coordinating Council	Electrical interconnection coordination	Comprehensive Progress Report



A1610012

## **APPENDIX I**

# FINANCIAL STATEMENT OF TEN WEST LINK PROJECT

#### DCR Transmission LLC Balance Sheet

	_	As of June 30, 2016	As of December 31, 2015
Assets			
Cash and cash equivalents	\$	1,161,510	849,157
Accrued regulatory asset carrying charges		140,083	6,570
Recoverable regulatory assets under development		5,145,440	2,832,246
Total Assets	\$	6,447,033	3,687,973
Liabilities & Member's Equity			
Liabilities			
Accounts payable and accrued expenses	\$	669,686	941,739
Total Liabilities	\$	669,686	941,739
Member's Equity			
Paid-in Capital	\$	5,637,606	2,740,006
Retained earnings		139,742	6,229
Total Member's Equity	\$	5,777,347	2,746,234
Total Liabilities & Member's Equity	\$	6,447,033	3,687,973

### DCR Transmission LLC Income Statement

	For the six months ended June 30, 2016	
Revenues:		
Regulatory asset carrying charges	\$ 133,513	
Total Revenue	\$ 133,513	
Expenses:		
Total expenses	\$ <u> </u>	
Net income	\$ 133,513	

#### DCR Transmission LLC Statement of Members' Equity

		For the period fr	om inception through Decem	ber 31, 2015
	Add	itional Paid-in Capital	Retained Earnings	Total
Equity at inception	\$	-	-	-
Capital contributions		3,104,134	-	3,104,134
Capital distributions		(364,128)	-	(364,128)
Net income		-	6,229	6,229
Balance at December 31, 2015	\$	2,740,006	6,229	2,746,234
	Add	For the period fro	om January 1, 2016 through J	une 30, 2016
		Capital	Retained Earnings	Total
Equity at December 31, 2015	\$	2,740,006	6,229	2,746,234
Capital contributions		2,897,600	-	2,897,600
Capital distributions		-	-	-
Net income			133,513	133,513
Balance at June 30, 2016	\$	5.637.606	139.742	5,777,347

#### DCR Transmission LLC Statement of Cash Flows For the six months ended June 30, 2016

Cash flows from operating activities:		
Net income	\$	133,513
Cash flows from operating activities:		
Change in:		
Accrued regulatory asset carrying charges		(133,513)
Accounts payable and accrued expenses		(272,053)
Net cash used in operating activities	\$	(272,053)
Cash flows from investing activities:		
Recoverable regulatory assets under development	\$	(2,313,193)
Net cash used in investing activities	\$	(2,313,193)
Cash flows from financing activities:		
Equity contributions	\$	2,897,600
Equity distributions		-
Net cash provided by financing activities	\$	2,897,600
Net decrease in cash and cash equivalents	\$	312,353
Cash and cash equivalents, beginning of period	\$	849,157
Cash and cash equivalents, organing of period	ψ	077,137
Cash and cash equivalents, end of period	\$	1,161,510



A1610012

## APPENDIX J

# FINANCIAL ABILITY AND FINANCING STRUCTURE

#### Financial Ability and Plan

Starwood Energy is the Managing Member of DCR Transmission, LLC and owns a 75% majority interest in the Project. ATI owns the remaining 25% minority interest. Both entities will fund their portion of the required equity pro-rata.

the Project is owned indirectly by Starwood Energy Infrastructure Fund II U.S., L.P. and its co-investment entities (collectively, "SEIF II") which has approximately \$1 billion of discretionary commitments from its investors.

The Project Sponsor expects to finance the Project with a 50-50 debt to equity structure which is consistent with the capital structure approved by FERC for other similar projects<sup>1</sup>. The Project Sponsor expects the financing to be structured as a traditional project financing with the objective of achieving a mid-investment grade rating (BBB or better). The Project Sponsor anticipates significant appetite (in excess of the required debt amount) given lenders' familiarity with both this asset class and the financing structures. The financing will be secured with all of the Project's assets and contracts, with a pledge of the equity interests of the Project Sponsor, and a 6-month debt service reserve account. This financing structure has been executed in the past for similar transmission assets, and most investors showed strong interest in the project debt.

<sup>&</sup>lt;sup>1</sup> See Morongo Transmission LLC, 148 FERC ¶ 61,139 (2014) (50 percent (debt) and 50 percent (equity) for upgrade to West of Devers transmission project in CAISO); Citizens Energy, 129 FERC ¶ 61,242 at P 22 (2009) (same 50:50); Pioneer Transmission, LLC, 126 FERC ¶ 61,281 at P 119 (2009) (same 50:50); Tallgrass Transmission, 125 FERC ¶ 61,248 at P 68 (2008) (same 50:50); Potomac-Appalachian Transmission Highline, LLC, 122 FERC ¶ 61,188 at P 55 (2008) (same 50:50); see also MidAmerican Central California Transco, LLC, 147, FERC ¶ 61,170 (2014) (52 percent (debt) and 48 percent (equity) approved for CAISO Gates-Gregg line).





#### CONFIDENTIAL



June [23], 2016

To Whom It May Concern:

Starwood Energy Infrastructure Fund II (the "Fund," or "SEIF II") is a closed-end private equity fund whose primary purpose is to generate returns for their partners by investing in equity and debt interests in energy infrastructure related projects. These may include, but are not limited to, electric transmission, storage and distribution, energy recovery, natural gas storage and pipelines, renewable energy, and other power-generation assets. SEI Management-II, L.P., a Delaware Limited Partnership (the "General Partner") is the General Partner of SEIF II and is indirectly controlled by Starwood Energy Group Global, LLC ("Starwood"), who makes all investment decisions on behalf of SEIF II.

SEIF II held its final closing on December 31, 2013 (the "Final Closing Date") with \$983.5 million of capital committed by various investors.

As of March 31, 2016, total capital commitments and cumulative capital called were as follows (in \$'000):

<u>Committed</u> \$983,469

On August 13, 2015, SEIF II formed SEIF-II U.S. Partnership Holdings III, LLC. ("US Holdings"). Subsequent thereto, US Holdings formed DCR Investor, LLC. ("DCR Investor"). DCR Investor was formed to facilitate an investment in the Delaney Colorado River Transmission Project ("DCRT"), which is also known as "Ten West Link".

Given the experience of the General Partner, the purpose of the Fund, and the uncalled commitments available to SEIF II and DCRT, Starwood believes that we have both the technical expertise and financial ability to develop, construct, and manage Ten West Link.

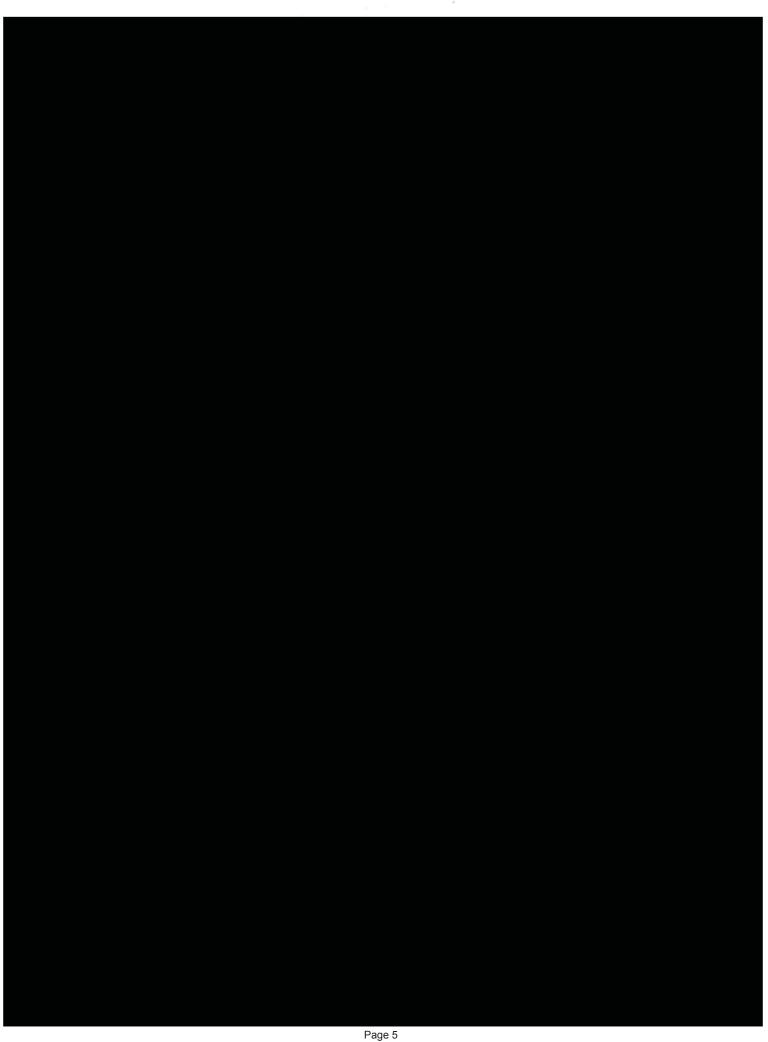
Respectfully,

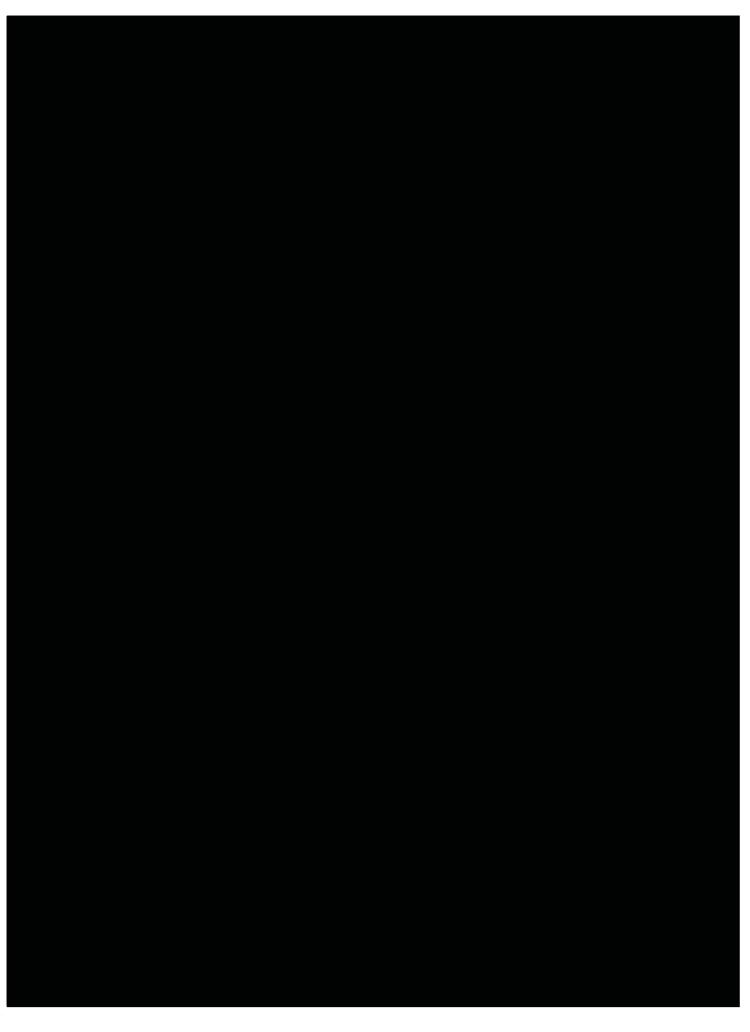
David Arbia

Chief Financial Officer

5 Greenwich Office Park Greenwich, CT 06831

Telephone 203.422.7700/Facsimile 203.422.7827 www.starwoodenergygroup.com







A1610012

## APPENDIX K

# NOTICE OF APPLICATION FOR A CPCN FOR TEN WEST LINK PROJECT

#### NOTICE OF APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

#### TEN WEST LINK TRANSMISSION PROJECT Date: October 21, 2016

Proposed Project: DCR Transmission, LLC ("DCRT") has filed an application with the California Public Utilities Commission ("CPUC") for a Certificate of Public Convenience and Necessity ("CPCN") to construct the Ten West Link Transmission Project ("Ten West" or the "Project"), which will run between the existing Delaney Substation in Tonopah, Arizona, and the existing Colorado River Substation west of Blythe, California. The Project will span approximately 114 miles, including 97 miles in Arizona and 17 miles in California, largely following the existing Devers-Palo Verde 500 kV transmission line ("DPV line") in an established utility corridor.

Ten West is composed of the following segments and would be constructed within a combination of existing public rights-of-way ("ROW") and ROWs to be acquired:

Route segment	Length	Land category crossed	200-foot ROW land crossings
	(miles)	(miles)	(acres)
Central Segment (Proposed)	113.98	BLM: 56.73 Yuma Test Range: 0.15 Bureau of Reclamation: 1.54 State Trust: 9.27 Kofa: 24.85	BLM: 1,376.84 Yuma Test Range: 3.74 Bureau of Reclamation: 37.61 State Trust: 226.10 Kofa: 602.45
North Copper Bottom Pass	4.30	BLM: 2.29 Colorado River Indian Reservation: 1.96 Bureau of Reclamation: 0.05	BLM: 55.47 Colorado River Indian Reservation: 47.61 Bureau of Reclamation: 1.21
South Copper	5.97	BLM: 5.19	BLM: 126.00
Bottom Pass		Bureau of Reclamation: 0.78	Bureau of Reclamation: 18.85
Alternative	25.20	BLM: 7.30	BLM: 177.08
Segment		State Trust: 3.17	State Trust: 77.28

The major elements of the Project are described as follows:

- Overhead Transmission Lines: The Project would include the installation of a 500 kV transmission line.
- Transmission Structures: The proposed support structures would be steel lattice towers. These include self-supporting four-legged tangent towers, guyed towers with a single footing and four support guy wires, and 2-legged H-frame towers as the primary structure types. For areas of conductor tension change, angles, and phasing transpositions, self-supporting four legged dead-end towers would be utilized. The structures are planned to be between 72 and 190 feet in height depending on the span length required and topography, with most being shorter than 130 feet. Span lengths between structures will vary from 600 to 2,100 feet depending upon terrain conditions and to achieve site-specific mitigation objectives.
- Conductors: Conductors for this Project will be aluminum stranded with a steel reinforced core ("ACSR"). The AC transmission line would consist of three phases for

the single-circuit, including a bundle comprised of multiple conductors per phase. The Project will use the Chukar ACSR conductor in triple-bundle configuration with 25% series compensation. The minimum conductor height above ground for the transmission line would be 30 to 40 feet for most of the route and 50 feet for the Colorado River crossing.

- Overhead Groundwire and Electrodes: To protect conductors from lightning strikes, two
  overhead shield or ground wires would be installed on top of the structures. One of the
  ground wires would be an EHS steel wire. The other ground wire would be an OPGW
  constructed of aluminum and steel wires around a center core containing optical fibers
  for telecommunications and transmission line protection coordination purposes.
- Series Compensation Station: The new series compensation system substation would be located under or in very close proximity to the new transmission line, parallel to the existing series compensation system substation associated with the DPV line and located at 59125 Pipeline Road in Arizona. The series compensation substation would be approximately 46.8 miles from Delaney Substation.

Environmental Assessment: The Bureau of Land Management ("BLM") is the primary agency responsible for the federal permitting process for the Project. The BLM will prepare an Environmental Impact Statement ("EIS") for the Project that complies with both the National Environmental Policy Act ("NEPA") and the California Environmental Quality Act ("CEQA"). The EIS will describe and assess the environmental impacts of the Project, discuss ways to mitigate or avoid the significant environmental effects, describe reasonable alternatives to the Project that may lessen the significant effects, and contain all of the other information required in an Environmental Impact Report as provided under CEQA.

The CPUC anticipates that it will use the EIS prepared by BLM as a CEQA-equivalent document to fulfill its environmental review obligations under CEQA as provided in Sections 15221 and 15223–15225 of the CEQA Guidelines (Title 14, California Code of Regulations). The public, including California Native American tribes, and interested agencies may participate in the environmental review of the Project through the BLM process, including by submitting comments on the draft EIS, by participating in any scoping meetings or public meetings that may be conducted, and/or by participating in interagency consultations.

EMF Compliance: The CPUC requires utilities to employ "no cost" and "low cost" measures to reduce public exposure to electric and magnetic fields ("EMF"). DCRT has filed, in compliance with CPUC Decision 931-11-013 and 06-01-042, an EMF Management Plan for this Project as part of its CPCN Application. DCRT will implement the following EMF reduction measure(s) for various portions of the Project:

- 1. Use more ground clearance with taller 500kV towers, comparable to the existing Colorado River-Palo Verde towers.
- 2. Install 500kV transposition towers at relatively the same locations as the existing transposition towers for Colorado River-Palo Verde. The transposition towers would ensure optimally phasing for the entire route.
- 3. Optimally phase proposed 500kV transmission line with the existing 500kV transmission line when possible.

Formal Protests: Formal protests to the CPCN Application must comply with Article 1 and Rule

2.6 of the CPUC's Rules of Practice and Procedure (posted on the CPUC's website at <a href="www.cpuc.ca.gov">www.cpuc.ca.gov</a>). Formal protests must state the facts constituting the grounds for the protest, the effect of the application on the protestant, and the reasons the protestant believes the application, or a part of it, is not justified. If the protest requests a hearing, it must state the facts you would present at a formal evidentiary hearing to support your protest. Any affected party may, within 30 days of the date of this notice, i.e., not later than November 21, 2016, protest and request that the CPUC hold hearings on the CPCN Application.

<u>Letters</u>: If you wish to make your views known without participating formally, you may write to Energy Division, CPUC at 505 Van Ness Avenue, San Francisco, CA 94102. Your communication will be directed to the Commissioners and the Administrative Law Judge for review, and will be placed in the proceeding's formal Correspondence File.

Notice and CPUC Documents: To be added to the official service list as "Information Only" for service of all CPUC documents in this proceeding, e.g., notice of hearings, rulings, and decisions, contact the Process Office at the CPUC, 505 Van Ness Avenue, San Francisco, CA 94102 or by e-mail at process office@cpuc.ca.gov.

Additional Project Information: For additional assistance, please contact the CPUC Public Advisor in San Francisco at (415) 703-2074 (<a href="mailto:public.advisor@cpuc.ca.gov">public.advisor@cpuc.ca.gov</a>), or in Los Angeles at (213) 576-7055 (<a href="public.advisor.la@cpuc.ca.gov">public.advisor.la@cpuc.ca.gov</a>).

To review a copy of DCRT's CPCN Application, or to request further information, please contact Ten West at: (844) 836-9378. Information about Ten West is also available at www.tenwestlink.com.



A1610012

## APPENDIX L

# GOVERNMENT AGENCY NOTIFICATION AND POSITION STATEMENT

### APPENDIX L LIST OF GOVERNMENTAL AGENCY CONSULTATIONS

Pursuant to GO 131-D, Section IX(A)(1)(g), DCR Transmission, LLC ("DCRT") provides the following information regarding the governmental agencies with which DCRT has undertaken reviews of the Ten West Link Transmission Project ("Ten West Project").

#### Federal

**Army Corps of Engineers ("Army Corps").** DCRT met with Army Corps representatives on March 31, 2016 to discuss right-of-entry issues regarding the Yuma Proving Ground. Army Corps officials appreciated the early, and ongoing, outreach. In March 2016, several members of the DCRT team met with the Army Corps regarding permitting requirements under Section 10 and Section 404 of the Clean Water Act. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**Department of the Interior (Bureau of Land Management ("BLM")).** BLM is the lead federal agency for the Ten West Project's National Environmental Policy Act ("NEPA") review. Since September 2015, DCRT has been meeting and communicating weekly with BLM Staff, including in Washington, D.C., Arizona, and California, to discuss all aspects of the Project. DCRT filed an application with BLM for transportation and utility systems and facilities on Federal Lands, SF-299 on September 14, 2015. A kickoff meeting was held in Phoenix on December 7, 2015 and a Notice of Intent was filed in the Federal Register on March 23, 2016. The scoping period took place between March 23, 2016 – May 9, 2016, with public scoping meetings held in Tonopah, Quartzsite (Arizona) and Blythe (California) between April 12-14, 2016. The final scoping report was published on July 26, 2016. Yuma Field Office expressed concern about the DCRT's Johnson Canyon alternative based on conflicts with recreational use and preservation of habitat. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**Bureau of Indian Affairs ("BIA").** DCRT met with BIA on November 10, 2015. This meeting was initiated by DCRT. Additionally, DCRT responded to an inquiry from a BIA representative on November 19, 2015. DCRT has not received a follow-up request to meet but remains available for further meetings. BIA has not stated a position regarding the Ten West Project.

**Bureau of Reclamation ("BOR").** DCRT met with BOR officials in March 2016 and held a conference call on July 22, 2016 to discuss right-of-entry and right-of-way issues. BOR officials appreciated the early, and ongoing, outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**Department of Defense.** DCRT met with representatives of the Yuma Proving Ground ("YPG") on December 1, 2015 and January 20, 2016. A conference call was conducted on January 28, 2016. Additionally, YPG officials attended a public economic workshop on June 14, 2016. DCRT sought to learn about test activities near the northern boundary and potential route impacts. YPG officials expressed a preference to avoid routes within their boundary and any alternatives located adjacent to the northern YPG boundary. YPG officials appreciated the early, and ongoing, outreach. Additionally, DCRT reached out to Luke Air Force Base in November 2015 with general information about the Project and an invitation to attend an agency meeting on November 10, 2015. No request to meet was received. DCRT remains available to meet. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**Department of Energy/Western Area Power Administration ("WAPA").** DCRT made a presentation to a regional WAPA/Southwest Area Transmission meeting on November 18, 2015. Additionally, a WAPA official attended an agency meeting on April 12, 2016. WAPA officials appreciated the early, and ongoing, outreach.

Page 1

Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**Environmental Protection Agency ("EPA").** An EPA official attended an alternatives workshop on January 28, 2016. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**Federal Energy Regulatory Commission ("FERC").** DCRT filed an application seeking authorization for certain transmission rate incentives pursuant to section 219 of the Federal Power Act on September 14, 2015. FERC issued public notice, with comments and interventions due on October 14, 2015 and received a total of six interventions. DCRT filed a response to Santa Clara/MSR on October 19, 2015. FERC approved all incentives requested on December 17, 2015. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**U.S. Fish & Wildlife Service ("USFWS").** USFWS officials attended an agency meeting on November 10, 2015, an open house on November 11, 2015, a workshop on January 28, 2016, a scoping meeting on April 14, 2016 and an economic workshop on June 14, 2016. USFWS officials expressed a strong preference to avoid the Kofa National Wildlife Refuge. USFWS officials appreciated the early, and ongoing, outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

#### Arizona State Agencies

**Arizona Corporation Commission ("ACC").** DCRT met with all five Corporation Commissioners and ACC Staff between the months of October 2015 and January 2016. The five Commissioners will have final authority to grant the CEC permit. DCRT discussed Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. The Commissioners and Staff appreciated the early outreach. DCRT intends to file a CEC application in 2017. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

Arizona Power Plant and Transmission Line Siting Committee ("Siting Committee"). DCRT met with the Assistant Attorney General in the Consumer Protection & Advocacy Section on December 22, 2015 to give an overview of the Ten West Project. As Chairman of the Siting Committee, the Attorney General will lead the environmental review process of the Certificate of Environmental Compatibility ("CEC") permit. DCRT discussed Project purpose and need, scope, routes and ACC permitting process. DCRT intends to file a CEC application in 2017. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**Arizona Department of Environmental Quality ("ADEQ").** DCRT met with the Director and Deputy Director on December 21, 2015. An ADEQ representative serves on the Siting Committee and will have a direct vote on the CEC permit. DCRT discussed Project purpose and need, scope, routes and ACC permitting process. The Director appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**Arizona Department of Transportation ("ADOT").** An ADOT representative attended public open houses on November 9-10, 2015. DCRT discussed how the proposed route would cross Interstate-10 ("I-10") twice and one of the potential alternative routes being discussed would parallel I-10, right-of-way requirements, setbacks, crossings, and access issues. ADOT recommended colocation of the transmission line with the highway for alternative segments in the vicinity of I-10 that take advantage of Corridor 30-52. ADOT officials appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

Additionally, AZGFD staff attended an open house on November 9, 2016, an agency meeting on November 10, 2015, an alternatives workshop on January 28, 2016, a BLM meeting on April 12, 2016 and a BLM meeting on June 14, 2016. AZGFD is likely to formally weigh-in during the CEC permitting process. Issues discussed included wildlife habitats, migratory patterns and corridors, vegetation disturbance, and fragmentation. AZGFD officials appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**Arizona Governor.** DCRT met with a representative of the Arizona Governor on November 19, 2015. The Governor may decide to formally weigh-in during the NEPA process and/or CEC permitting process. DCRT discussed Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. The Governor's representative appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The Governor has not stated a position regarding the Ten West Project.

**Arizona Residential Utility Consumer Office ("RUCO").** DCRT met with the Director and Deputy Director on December 22, 2015. RUCO is most likely to formally weigh-in during the CEC permitting process. DCRT discussed Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. The Director appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

Arizona State Land Department ("ASLD"). DCRT met with the ASLD right-of-way manager on October 2, 2015. DCRT discussed Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. Since some of the potential alternative routes being considered would cross state land, right-of-way issues were also discussed. Additionally, ASLD Staff attended an agency meeting on November 10, 2015, a field visit on January 27, 2016, an alternatives workshop on January 28, 2016 and an agency meeting on April 12, 2016. ASLD officials appreciated the early, and ongoing, outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

Arizona State Parks ("State Parks"). DCRT met with State Parks officials on December 22, 2015. State Parks officials also attended an agency meeting on April 12, 2016. DCRT discussed the Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. Since the proposed route and possible alternatives could potentially impact parts of the State trail system, access issues were discussed. State Parks officials appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

Central Arizona Project ("CAP"). DCRT met with CAP officials on October 1, 2015, December 2, 2015 and March 2016. DCRT discussed Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. Since CAP has long-term power needs to operate their canal system, potential electric supply issues were also discussed. CAP officials appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

#### Arizona Local Government

La Paz County. DCRT has met extensively with La Paz County Supervisors and Staff since October 2015 to discuss Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. La Paz County seeks to maximize the economic benefits and mitigation it receives from Ten West while simultaneously protecting OHV recreation areas. La Paz County officials requested that economic impacts to the county be evaluated on a county basis and not lumped in with the overall project study area. They requested that all negative impacts from the project be quantified and mitigation fees developed as part of the socioeconomic study. Concerns for negative impacts to future economic development as a result of the

project were discussed. La Paz County officials expressed a preference for the Ten West Project's proposed route, but appear open to other possible routes. La Paz County officials and representatives expressed strong concern about potential alternatives in the immediate area of Quartzsite and the long term visitor area south of town. Additional meetings are anticipated given ongoing correspondence and coordination.

**Maricopa County.** DCRT met with County Supervisors and Staff on December 21-22, 2015. DCRT discussed Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. County officials appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The County has not stated a position regarding the Ten West Project.

**Town of Quartzite.** DCRT met with the Mayor and Staff on May 6 and June 28, 2016. DCRT discussed Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. Quartzsite opposes any route that bisects the Town boundary. Additional meetings are anticipated given ongoing correspondence and coordination.

**State Legislature.** DCRT met with a State Representative on October 15, 2015. DCRT discussed Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. The Legislator appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The Legislature has not stated a position regarding the Ten West Project.

**Yuma County.** A County Supervisor attended a public economic workshop on June 14, 2016. Additional meetings are anticipated given ongoing correspondence and coordination. The County has not stated a position regarding the Ten West Project.

#### Arizona Tribal

Colorado River Indian Tribes ("CRIT"). DCRT met with CRIT Tribal Council on June 20, 2016. Additionally, tribal representatives attended a public open house on November 12, 2015 and an agency meeting on April 12, 2016. DCRT discussed Project purpose and need, routes and NEPA permitting process, a confidentiality agreement, right-of-way issues, cultural monitoring services and right-of-entry issues. CRIT has been communicating directly with BLM under Section 106 government-to-government consultation requirements. CRIT expressed concern about impact to tribal cultural resources throughout the study area including the area outside of the CRIT legal boundary. Additional meetings are anticipated given ongoing correspondence and coordination.

Quechan Tribe and Gila River Indian Community. DCRT reached out to both tribes with a letter dated January 27, 2016 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but tribal representatives participated in an agency meeting April 12, 2016, a scoping meeting April 14, 2016 and an economic meeting June 14, 2016. Tribal representatives expressed concern about impact to tribal cultural resources throughout the study area including the area outside of the tribe legal boundary. DCRT remains available to meet with either tribe. Additional meetings are anticipated given ongoing correspondence and coordination. The tribes have not stated a position regarding the Ten West Project.

Cocopah Indian Tribe, Ak-Chin Indian Community, Fort McDowell Yavapai Nation, Fort Mojave Indian Tribe, Hopi Tribe, Salt River Pima-Maricopa Indian Community, Tohono O'Odham Nation, Yavapai Prescott Indian Tribe, Yavapai-Apache Nation. DCRT reached out to these tribes with a letter dated January 27, 2016 with general information about the Ten West Project and an offer to meet. The tribes expressed concern about impact to tribal cultural resources throughout the study area including the area outside of the tribes' legal boundary. DCRT did not receive a request to meet, but remains available to meet with any tribe. Additional meetings are anticipated given ongoing correspondence and coordination. The tribes have not stated a position regarding the Ten West Project.

#### Arizona Congressional Delegation

**Senator John McCain.** DCRT met with Senator McCain's staff October 29, 2015. DCRT discussed Project purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. Staff appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. Senator McCain has not stated a position regarding the Ten West Project.

Congresswoman Ann Kirkpatrick. DCRT reached out to Congresswoman Kirkpatrick's office in November 2015 with general information about the Ten Wes Project. A staffer attended an agency meeting on November 10, 2015 and April 12, 2016. DCRT provided additional information about purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. Additional meetings are anticipated given ongoing correspondence and coordination. Congresswoman Kirkpatrick has not stated a position regarding the Ten West Project.

Congresswoman Kyrsten Sinema. DCRT reached out to Congresswoman Sinema's office in November 2015 with general information about the Ten West Project. A staffer attended an agency meeting on November 10, 2015. DCRT provided additional information about purpose and need, Arizona benefits, routes, ACC permitting process and NEPA permitting process. Additional meetings are anticipated given ongoing correspondence and coordination. Congresswoman Sinema has not stated a position regarding the Ten West Project.

**Senator Jeff Flake, Congressman Paul Gosar, Congressman Raul Grijalva.** DCRT reached out to each office in November 2015 with general information about the Ten West Project and an invitation to attend an agency meeting on November 10, 2015. No request to meet was received. DCRT remains available to meet. Additional meetings are anticipated given ongoing correspondence and coordination. The congressional delegation has not stated a position regarding the Ten West Project.

#### California State Agencies

California Department of Fish & Wildlife ("DFW"). DCRT met with two of DFW's Environmental Scientists on November 12, 2015. Additionally, a DFW official participated in an agency meeting November 20, 2015. DCRT discussed Project purpose and need, California benefits, routes, CPCN/CEQA permitting process and NEPA permitting process. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

California Department of Parks & Recreation ("DPR"). DCRT reached out to DPR in October 2015 with general information about Ten West and an offer to meet. DCRT did not receive a request to meet, but remains available to meet. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

California Department of Transportation ("DOT"). DCRT reached out to DOT in October 2015 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but a DOT official attended a public open house November 12, 2015. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**California Energy Commission ("CA CEC").** DCRT reached out to the CA CEC in October 2015 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but remains available to meet. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**California Governor.** DCRT reached out to the Governor's office in October 2015 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but remains available to meet. Additional meetings are anticipated given ongoing correspondence and coordination. The Governor has not stated a position regarding the Ten West Project.

California Native American Heritage Commission ("NAHC"). DCRT reached out to NAHC in October 2015 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but remains available to meet. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

California Public Utilities Commission ("CPUC"). DCRT met with the CPUC Energy Division Staff and Legal Counsel on October 30, 2015, the CPUC Program & Project Supervisor on January 7, 2016, CPUC Legal Counsel and Project Supervisor on February 17, 2016. Additionally, CPUC officials attended an agency meeting April 12, 2016 and an economic meeting June 14, 2016. DCRT discussed the process for obtaining a Certificate of Public Convenience and Necessity ("CPCN") and the parallel process for compliance with the California Environmental Quality Act ("CEQA"). Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

California Regional Water Quality Control Board ("WQCB"). DCRT reached out to WQCB in October 2015 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but remains available to meet. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

California Resources Agency ("CRA"). DCRT reached out to CRA in October 2015 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but remains available to meet. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

California State Lands Commission ("CSLC"). DCRT met with CSLC's Land Management Division Staff on October 21, 2015 and held a conference call with CSLC Staff in February 2016. DCRT discussed right-of-way issues. CSLC Staff appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

**Mojave Desert Air Quality Management District ("MDAQMD").** DCRT reached out to the MDAQMD in October and November 2015 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but remains available. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

Colorado River Basin Regional Water Quality Control Board ("CRBRWQCB"). DCRT reached out to the CRBRWQCB in October and November 2015 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but remains available. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

#### California Local Government

City of Blythe. DCRT met with the Blythe Mayor, a Councilmember and the City Manager on October 8, 2015 and the City Manager on June 28, 2016. Additionally, a Councilmember attended a public open house on November 12, 2015 and a City Staffer attended an economic workshop on June 14, 2016. DCRT discussed Project purpose and need, California benefits, routes, CPCN/CEQA permitting process and NEPA permitting process. Blythe officials have expressed a preference for routes that stay to the south of town. The mayor of Blythe expressed support for the proposed route crossing the Colorado River. City officials appreciated the

early, and ongoing, outreach. Additional meetings are anticipated given ongoing correspondence and coordination.

**Riverside County.** DCRT met with Riverside County Planning Director and three Planners on October 30, 2015, a County Supervisor on November 18, 2015 and Planning Staff on May 11, 2016. DCRT discussed Project purpose and need, California benefits, routes, CPCN/CEQA permitting process and NEPA permitting process. County officials appreciated the early, and ongoing, outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The county has not stated a position regarding the Ten West Project.

**State Legislature.** DCRT met with a State Assemblymember and State Senator's Chief of Staff on November 3, 2015. DCRT discussed Project purpose and need, California benefits, routes, CPCN/CEQA permitting process and NEPA permitting process. Legislative officials appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The legislature has not stated a position regarding the Ten West Project.

#### California Tribal

**Agua Caliente Tribe.** DCRT met with the Agua Caliente Tribe's Director of Tribal Historic Preservation on November 18, 2015. DCRT discussed Project purpose and need, California benefits, routes, CPCN/CEQA permitting process and NEPA permitting process. The tribal representative appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The tribe has not stated a position regarding the Ten West Project

**Morongo Band of Mission Indians.** DCRT met with Morongo's Cultural Resource Specialist on December 17, 2015. DCRT discussed Project purpose and need, California benefits, routes, CPCN/CEQA permitting process and NEPA permitting process. The tribal representative appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The tribe has not stated a position regarding the Ten West Project

**Twenty-Nine Palms Band of Mission Indians of California.** DCRT met with the Tribal Historic Preservation Officer on November 4, 2015. DCRT discussed Project purpose and need, California benefits, routes, CPCN/CEQA permitting process and NEPA permitting process. Tribal representative appreciated the early outreach. Additional meetings are anticipated given ongoing correspondence and coordination. The tribe has not stated a position regarding the Ten West Project

Cabazon Band of Mission Indians, Chemehuevi Indian Tribe of the Chemehuevi Reservation, Coachella Indian Tribe, Torres-Martinez Desert Cahuilla Indians. DCRT reached out to these tribes in October and November 2015 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but remains available to meet with any tribe. Additional meetings are anticipated given ongoing correspondence and coordination. The tribes have not stated a position regarding the Ten West Project

**Southern California Agency, Bureau of Indian Affairs ("BIA")**. DCRT reached out to the BIA in October and November 2015 with general information about the Ten West Project and an offer to meet. DCRT did not receive a request to meet, but remains available. Additional meetings are anticipated given ongoing correspondence and coordination. The agency has not stated a position regarding the Ten West Project.

#### California Congressional Delegation

**Senator Barbara Boxer, Senator Dianne Feinstein, Congressman Raul Ruiz.** DCRT reached out to these offices in October and November 2015 with general information about Ten West and an offer to meet. DCRT

did not receive a request to meet, but remains available to meet. Additional meetings are anticipated given ongoing correspondence and coordination. The congressional delegation has not stated a position regarding the Ten West Project.



#### BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

	A1610012	
In the Matter of the Application of DCR	Application No.	
Transmission, LLC for a Certificate of Public		

### CAISO TRANSMISSION PLAN

APPENDIX M IS SUBMITTED IN DISC FORM BECAUSE IT EXCEEDS THE SIZE LIMITATION *OF RULE 1.13(b)(1)(ii)* 

> Baird Fogel F. Jackson Stoddard Lisa Qi Crowell & Moring LLP 275 Battery Street, 23rd Floor San Francisco, CA 94111 Telephone: (415) 986-2800 E-mail: BFogel@crowell.com JStoddard@crowell.com LQi@crowell.com

Attorneys for DCR Transmission, LLC

Dated: October 11, 2016

Convenience and Necessity for Construction and Operation of 500 kV Transmission Line



A1610012

# APPENDIX N

# CAISO APPROVED PROJECT SPONSOR AGREEMENT

# APPROVED PROJECT SPONSOR AGREEMENT (APSA) BETWEEN

DCR TRANSMISSION, LLC

# **AND**

# CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

PROJECT: DELANEY – COLORADO RIVER 500 kV TRANSMISSION LINE

# **TABLE OF CONTENTS**

ARTICLE 1. DEFINITIONS	2
ARTICLE 2. EFFECTIVE DATE, TERM, AND TERMINATION	4
ARTICLE 3. REGULATORY FILINGS AND CAISO TARIFF COMPLIANCE.	5
ARTICLE 4. SCOPE OF SERVICE	6
ARTICLE 5. FACILITIES ENGINEERING, PROCUREMENT, AND	
CONSTRUCTION	
ARTICLE 6. TESTING AND INSPECTION	. 14
ARTICLE 7. METERING	
ARTICLE 8. COMMUNICATIONS	. 15
ARTICLE 9. OPERATIONS	
ARTICLE 10. COST RECOVERY, BILLING, AND PAYMENT	
ARTICLE 11. REGULATORY REQUIREMENTS AND GOVERNING LAWS	
ARTICLE 12. NOTICES	
ARTICLE 13. FORCE MAJEURE	
ARTICLE 14. DEFAULT	. 19
ARTICLE 15. INDEMNITY, CONSEQUENTIAL DAMAGES. AND	
INSURANCE	. 20
ARTICLE 16. ASSIGNMENT	
ARTICLE 17. SEVERABILITY	
ARTICLE 18. COMPARABILITY	
ARTICLE 19. CONFIDENTIALITY	
ARTICLE 20. ENVIRONMENTAL RELEASES	
ARTICLE 21. INFORMATION ACCESS AND AUDIT RIGHTS	
ARTICLE 22. SUBCONTRACTORS	
ARTICLE 23. DISPUTES	
ARTICLE 24. REPRESENTATIONS, WARRANTIES, AND COVENANTS	
ARTICLE 25. MISCELLANEOUS	. 30

# **APPENDICES**

- Appendix A Project Details
- Appendix B Milestones
- Appendix C Security Arrangements Details
- Appendix D Addresses for Delivery of Notices and Billings
- Appendix E Approved Project Sponsor's Costs of Project



#### APPROVED PROJECT SPONSOR AGREEMENT

# DCR TRANSMISSION, LLC

#### CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

THIS APPROVED PROJECT SPONSOR AGREEMENT ("Agreement") is made and entered into this \_\_1st\_\_ day of \_\_December \_\_\_\_\_\_\_\_, 20\_\_15\_, between DCR Transmission, LLC, an organized Delaware limited liability company ("Approved Project Sponsor"), and the California Independent System Operator Corporation, a California nonprofit public benefit corporation organized and existing under the laws of the State of California ("CAISO"). Approved Project Sponsor and the CAISO each may be referred to as a "Party" or collectively as the "Parties."

#### **RECITALS**

**WHEREAS**, the CAISO exercises Operational Control over the CAISO Controlled Grid; and

**WHEREAS**, the Approved Project Sponsor intends to finance, own, construct, operate and maintain the Delaney – Colorado River 500 kV Transmission Line Project ("Project") consisting of transmission facilities identified in Appendix A to this Agreement; and

**WHEREAS,** if applicable, the Approved Project Sponsor will seek interconnection of the Project from the Interconnecting PTO or other entity in accordance with the requirements provided in this Agreement; and

**WHEREAS**, the Parties agree that the Approved Project Sponsor will enter into the Transmission Control Agreement to become a Participating Transmission Owner ("Participating TO"), if it is not already a Participating TO, effective upon energization of the Project, and will turn the Project over to the Operational Control of the CAISO; and

WHEREAS, the Parties recognize that the Approved Project Sponsor has certain rights and obligations related to the Project that arise prior to the date upon which the Approved Project Sponsor will place the facilities under the CAISO's Operational Control and, if not already a Participating TO, will become a Participating TO and which may remain in effect for a discrete period of time after the Approved Project Sponsor enters into the Transmission Control Agreement; and

**WHEREAS**, the Approved Project Sponsor and the CAISO thus have agreed to enter into this Agreement for the purpose of identifying rights and obligations associated with the Project that arise prior to the effective date of the Approved Project Sponsor's execution of the Transmission Control Agreement;



**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein, it is agreed:

#### **ARTICLE 1. DEFINITIONS**

When used in this Agreement, a term with initial capitalization shall have the meaning set forth in this Article 1 or the recitals, or if not defined in this Article 1 or the recitals, shall have the meaning specified in the Article in which it is used or in the CAISO Tariff, Appendix A.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state, and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits, and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the Western Electricity Coordinating Council or its successor.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Balancing Authority Area of the Interconnecting PTO's Transmission System to which the Project is directly connected, including requirements adopted pursuant to Section 215 of the Federal Power Act.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of this Agreement.

**Breaching Party** shall mean a Party that is in Breach of this Agreement.

**Confidential Information** shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise, subject to Article 19.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 14 of this Agreement.

**Effective Date** shall mean the date on which this Agreement becomes effective as specified in Article 2.

**Environmental Law** shall mean Applicable Laws and Regulations relating to pollution or protection of the environment or natural resources.



**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, earthquake, or explosion, any order, regulation, or restriction imposed by governmental, military, or lawfully established civilian authorities, or any other cause beyond the reasonable control of the Parties that could not have been avoided through the exercise of Good Utility Practice. A Force Majeure event does not include (1) acts of negligence or intentional wrongdoing by the Party claiming Force Majeure; (2) economic conditions that render a Party's performance of this Agreement unprofitable or otherwise uneconomic; (3) economic hardship of either Party; or (4) failure or delay in granting of necessary permits for reasons not caused by Force Majeure.

**Governmental Authority** shall mean any federal, state, local, or other governmental, regulatory, or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Approved Project Sponsor, the CAISO, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials, or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants," or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material, or substance, exposure to which is prohibited, limited, or regulated by any applicable Environmental Law.

**Interconnecting PTO** shall mean any Participating TO, other than the Approved Project Sponsor, that owns or is building transmission facilities to which the Project will interconnect.

Interconnection Handbook shall mean a handbook, developed by the Interconnecting PTO and posted on the Interconnecting PTO's web site or otherwise made available by the Interconnecting PTO, describing technical and operational requirements for controls and protection equipment for transmission connected to the Interconnecting PTO's portion of the CAISO Controlled Grid, as such handbook may be modified or superseded from time to time. Interconnecting PTO's standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice.



**Loss** shall mean any and all damages, losses, and claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties.

**Metering Equipment** shall mean all metering equipment installed or to be installed for measuring the Balancing Authority Area boundary pursuant to this Agreement at the metering points, including instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**Party or Parties** shall mean the CAISO, the Approved Project Sponsor, or the applicable combination of the above.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under this Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

System Protection Facilities shall mean equipment, including necessary protection signal communications equipment, that protect (1) the Interconnecting PTO's Transmission System, Interconnecting PTO's Transmission Interconnection Facilities, CAISO Controlled Grid, and Affected Systems from faults or other electrical disturbances and (2) the Approved Project Sponsor's Transmission System from faults or other electrical system disturbances occurring on the CAISO Controlled Grid, Interconnecting PTO's Transmission Interconnection Facilities, and Affected Systems or on other delivery systems or other generating systems to which the CAISO Controlled Grid is directly connected.

**Transmission Interconnection Facilities** shall mean the Interconnecting PTO's or other entity's transmission facilities, including any modification, additions, or upgrades, that are necessary to physically and electrically interconnect the Project to the Interconnecting PTO's Transmission System.

**Transmission Interconnection Service** shall mean the service defined in Section 4.2 of this Agreement.

# ARTICLE 2. EFFECTIVE DATE, TERM, AND TERMINATION

**2.1 Effective Date.** This Agreement shall become effective upon execution by all Parties, subject to acceptance by FERC (if applicable). The CAISO shall promptly file this Agreement with FERC upon execution in accordance with Section 3.1, if required.



- **2.2 Term of Agreement.** This Agreement shall remain in effect until termination consistent with Section 2.3.
- 2.3 Agreement Termination.
  - **2.3.1** Except for the obligations set forth in Sections 5.6, 5.10, 10.1.1, 10.3, and 15.3, this Agreement shall terminate when the Project has been turned over to CAISO Operational Control.
  - **2.3.2** A Party may terminate this Agreement in accordance with Section 5.8 or Article 14.
  - **2.3.3** Notwithstanding Sections 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination and, if applicable, FERC has accepted the notice of termination.

#### ARTICLE 3. REGULATORY FILINGS AND CAISO TARIFF COMPLIANCE

- 3.1 Filing. The CAISO shall file this Agreement (and any amendment hereto) with the appropriate Governmental Authority, if required. The Approved Project Sponsor may request that any information included in such filing be subject to the confidentiality provisions of Article 19. If the Approved Project Sponsor has executed this Agreement, or any amendment to this Agreement, the Approved Project Sponsor shall reasonably cooperate with the CAISO with respect to such filing and to provide any information reasonably requested by the CAISO needed to comply with applicable regulatory requirements.
- **3.2** Agreement Subject to CAISO Tariff. The Approved Project Sponsor shall comply with all applicable provisions of the CAISO Tariff.
- **3.3** Relationship Between this Agreement and the CAISO Tariff. If and to the extent a provision of this Agreement is inconsistent with the CAISO Tariff and dictates rights and obligations between the CAISO and the Approved Project Sponsor, the CAISO Tariff shall govern.
- 3.4. Requirement to Become a Participating TO. The Approved Project Sponsor agrees that the Project shall be placed under CAISO Operational Control upon completion of the Project. To the extent the Approved Project Sponsor is not already a Participating TO, the Approved Project Sponsor further agrees that it shall enter into the Transmission Control Agreement in sufficient time for its execution to become effective as of the date of energization of the Project and that it has met or shall meet all other CAISO Tariff requirements to become a Participating TO in accordance with Section 4.3 of the CAISO Tariff.



3.5 Relationship Between this Agreement and the Transmission Control Agreement. Once the Approved Project Sponsor has entered into the Transmission Control Agreement, if and to the extent a matter specifically addressed in this Agreement is inconsistent with the Transmission Control Agreement, the terms of the Transmission Control Agreement shall govern.

#### **ARTICLE 4. SCOPE OF SERVICE**

- **4.1 Transmission Facilities.** The Approved Project Sponsor shall build and connect to the CAISO Controlled Grid the Project identified in Appendix A.
- 4.2 Transmission Interconnection Service. Transmission Interconnection Service allows the Approved Project Sponsor to connect the Project to the facilities of an Interconnecting PTO or a transmission system that is not part of the CAISO Controlled Grid. Unless the Project connects solely to the facilities of the Approved Project Sponsor, the Approved Project Sponsor shall request Transmission Interconnection Service from the Interconnecting PTO or other entity according to the milestones set forth in Appendix B and shall comply with the Interconnecting PTO's or other entity's applicable transmission interconnection procedures. The Approved Project Sponsor must obtain a separate agreement for Transmission Interconnection Service from the Interconnecting PTO or any other entity to whose facilities the Project will interconnect. This separate agreement with each Interconnecting PTO or other entity must provide, at a minimum, for the Interconnecting PTO or other entity to take any procedural steps required in this Agreement with respect to the transmission interconnection, including Sections 5.3.4, 5.4.2, 5.4.3, 5.5.1.3, 5.6.2, 6.1, 8.1, and 9.2, and must identify the Transmission Interconnection Facilities that an Interconnecting PTO is responsible for, and must pay for in accordance with Section 24.14.2 of the CAISO Tariff. The CAISO may facilitate the coordination between the Approved Project Sponsor and the Interconnecting PTO contemplated by this Agreement.
  - 4.2.1 The Transmission Interconnection Service agreement shall require that the Interconnecting PTO or other entity providing Transmission Interconnection Service provide to the CAISO, every ninety (90) calendar days until the Project is energized and under CAISO Operational Control, a Transmission Interconnection Facilities status report. Such status report shall include project schedule; permit and license status, including environmental, state, and local permits and licenses; right-of-way acquisition status, if required; land acquisition status, if required; design and engineering status; status of contracts for project work, including land, procurement, and staffing; construction status; testing status; events creating risks and obstacles to project completion; and project budget, including actuals, estimate to complete, and contingency. The format for the report shall be in accordance with the Business Practice Manual for the Transmission Planning Process.



- **4.3** Approved Project Sponsor to Meet Requirements of the Interconnecting PTO's Interconnection Handbook. If applicable, the Approved Project Sponsor shall comply with the Interconnecting PTO's Interconnection Handbook for the transmission interconnections.
- 4.4 Performance Standards. Each Party shall perform all of its obligations under this Agreement in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice. To the extent a Party is required to take or prevented from or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this Agreement for its lack of compliance therewith, and if such Party is the CAISO, then the CAISO shall have the authority to amend this Agreement unilaterally to eliminate the conflict with such regulations or standards and shall submit the amendment to FERC for approval, if applicable.

# ARTICLE 5. FACILITIES ENGINEERING, PROCUREMENT, AND CONSTRUCTION

- 5.1 **General.** The Approved Project Sponsor shall, at its expense, design, procure, construct, own, and install the Project, as set forth in Appendix A. The Approved Project Sponsor shall comply with all requirements of law and shall assume responsibility for the design, procurement, and construction of the Project using Good Utility Practice and the standards and specifications provided by the Interconnecting PTO or other entity, if applicable. The Project shall be based on the assumed accuracy and completeness of all technical information received by the CAISO from the Approved Project Sponsor and by the Approved Project Sponsor from any Interconnecting PTO or other entity providing Transmission Interconnection Service. Changes to the Project design described in this Agreement must be approved by the CAISO in accordance with Section 5.9 of this Agreement. Unless otherwise agreed by the Parties, the Approved Project Sponsor shall select the testing date and the energization date for the Project consistent with the Approved Project Sponsor's application approved by the CAISO, and such dates shall be set forth in Appendix B (Milestones).
- 5.2 Information Exchange. As soon as reasonably practicable after the Effective Date, the Approved Project Sponsor shall provide information to the CAISO regarding the design and compatibility of the Project and the Transmission Interconnection Facilities, and shall work diligently and in good faith to make any necessary design changes to the Project, subject to approval by the CAISO in accordance with Section 5.9. The Parties shall amend the description of the Project set forth in Appendix A to reflect any agreed changes to the Project.



- 5.3 Initial Construction Plan and Reporting Requirements. The Approved Project Sponsor shall keep the CAISO advised monthly as to the progress of the financing, procurement, and construction efforts with respect to the Project, via email or verbal discussion as agreed upon by the Parties, and in accordance with the timeframes specified herein.
  - 5.3.1 The Approved Project Sponsor shall provide the CAISO with the initial construction plan one hundred twenty (120) calendar days after the Approved Project Sponsor has been selected in accordance with Section 24.4.1 of the CAISO Tariff. The plan shall include: land acquisition and permits requirements, status, and schedule; materials procurement requirements, status, and schedule; construction financing status and schedule; and Project contact information, if different than as identified in the selection process.
  - 5.3.2 Every ninety (90) calendar days after the initial construction plan is received until the Project is energized and under CAISO Operational Control, the Approved Project Sponsor shall provide the CAISO with a construction plan status report. Such status report shall include the Project schedule; permit and license status, including environmental, state, and local permits and licenses; right-of-way acquisition status; land acquisition status; design and engineering status; events that might affect the ability to meet design specifications; status of contracts for project work, including land, procurement, and staffing; Interconnecting PTO or other entity interconnection agreements; construction status; testing status; risks and obstacles to project completion; and Project budget status, including actuals, estimate to complete, and contingency. The format for the report shall be in accordance with the Business Practice Manual for the Transmission Planning Process.
  - **5.3.3** Pursuant to Section 24.6.1 of the CAISO Tariff, the CAISO will send Project status reports received in accordance with Section 5.3.2 to the applicable Interconnecting PTO and then the CAISO will hold a call with the Interconnecting PTO to review the status report, including completion date and items of concern.
  - 5.3.4 If, at any time, the Approved Project Sponsor determines, in consultation with the CAISO and Interconnecting PTO or other entity providing Transmission Interconnection Service, that the completion of the Interconnecting PTO's or other entity's Transmission Interconnection Facilities will not be required until after the specified energization date set forth in Appendix B (Milestones), the Approved Project Sponsor shall provide written notice to the Interconnecting PTO or other entity and to the CAISO of such later date upon which the completion of the



Interconnecting PTO's or other entity's Transmission Interconnection Facilities will be required.

# 5.4 Submission and Review of Project Specifications.

- The Approved Project Sponsor shall submit specifications for major Project equipment and/or materials, including System Protection Facilities, to the CAISO and to the Interconnecting PTO or other entity providing Transmission Interconnection Service, for review and comment at least thirty (30) calendar days prior to the date on which the Approved Project Sponsor solicits offers to provide specific equipment or material to which the specifications apply or otherwise commences procurement. The Approved Project Sponsor shall provide the CAISO and the Interconnecting PTO or other entity the opportunity to review such specifications to ensure that the Project is compatible with the technical specifications, operational control, safety requirements, and any other applicable requirements of the CAISO and the Interconnecting PTO or other entity providing Transmission Interconnection Service, and to provide comment on such specifications within fifteen (15) calendar days after the submission. All specifications provided hereunder shall be deemed Confidential Information subject to the provisions of Article 19.
- **5.4.2** The Approved Project Sponsor shall submit final specifications for major Project equipment and/or materials, including System Protection Facilities, if the specification differs from the specification submitted in accordance with Section 5.4.1, to the CAISO and to the Interconnecting PTO or other entity providing Transmission Interconnection Service, for review at least one hundred eighty (180) calendar days prior to the date that testing is scheduled to commence pursuant to Appendix B (Milestones). The Approved Project Sponsor shall submit to the CAISO and to the Interconnecting PTO or other entity providing Transmission Interconnection Service final specifications for review and comment at least ninety (90) calendar days prior to the date testing is scheduled to commence. If material and/or equipment is different from the original specification submittal, the Approved Project Sponsor shall provide the CAISO and the Interconnecting PTO or other entity the opportunity to review such specifications to ensure that the Project is compatible with the technical specifications, operational control, safety requirements, and any other applicable requirements and to provide comments within thirty (30) calendar days after each submission. All specifications provided hereunder shall be deemed Confidential Information subject to the provisions of Article 19.
- **5.4.3** Final specification review by the CAISO and by the Interconnecting PTO or other entity shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability, or



reliability of the Project or the Interconnecting PTO's Transmission Interconnection Facilities. As described in Section 5.4.2, Approved Project Sponsor shall make such changes to the Project as may reasonably be required by the Interconnecting PTO, other entity, or the CAISO, in accordance with Good Utility Practice, to ensure that the Project is compatible with the technical specifications, Operational Control, and safety requirements of the Interconnecting PTO, other entity, or the CAISO.

#### 5.5 Construction Activities.

- **5.5.1** The Approved Project Sponsor shall commence construction of the Project as soon as practicable, consistent with the schedule set forth in Appendix B (Milestones), after the following additional conditions are satisfied:
  - **5.5.1.1** The Approved Project Sponsor has obtained appropriate Governmental Authority approval for any facilities requiring regulatory approval.
  - **5.5.1.2** The Approved Project Sponsor has obtained necessary permits, real property rights, and rights-of-way, to the extent required for the construction of the Project.
- **5.5.2** At least thirty (30) calendar days prior to commencement of Project construction, the Approved Project Sponsor shall provide to the CAISO, for informational purposes, a construction schedule for the Interconnecting PTO's or other entity's Transmission Interconnection Facilities.
- 5.5.3 At any time during construction, should any phase of the Project engineering, equipment procurement, or construction not meet the standards and specifications provided by the Interconnecting PTO or other entity, the Approved Project Sponsor shall be obligated to remedy deficiencies in that portion of the Project. The Approved Project Sponsor may seek approval from FERC to recover in its transmission revenue requirement just and reasonable costs associated with such remedy.
- 5.5.4 The Approved Project Sponsor shall indemnify the CAISO for claims arising under this Agreement resulting from Project construction under the terms and procedures specified in Section 15.1 Indemnity, other than for losses arising from actions that are not within the control of the Approved Project Sponsor.
- 5.5.5 If, during Project development, siting, design, engineering, construction, or testing, the Approved Project Sponsor decides to use a vendor, or any other Project team member, that is different than the vendor or team member specifically set forth in the Project Sponsor proposal submitted by



the Approved Project Sponsor in accordance with the Business Practice Manual for the Transmission Planning Process, the Approved Project Sponsor shall notify the CAISO within ten (10) calendar days after the decision to make the change. Upon notification, the CAISO may take whatever action is necessary to ensure that the selected vendor or Project team member will at a minimum provide the same level of service that would have been provided by the vendor or Project team member described in the Approved Project Sponsor's proposal.

# 5.6 Final Project Design

- 5.6.1 As soon as reasonably practicable, but within twelve months after Project construction completion, the Approved Project Sponsor shall provide a summary of the final construction cost, which summary shall set forth sufficient detail to enable the CAISO to understand the Project costs, including a written explanation for the use of contingency and any cost overruns in excess of the cost estimate provided in Appendix E.
- **5.6.2** The Project shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) calendar days after the Project has been turned over to the CAISO's Operational Control, unless the CAISO and Approved Project Sponsor agree on another mutually acceptable date, the Approved Project Sponsor shall deliver to the Interconnecting PTO or other entity and to the CAISO "as-built" drawings, information, and documents for the Project. This information shall include, as applicable: (i) a one-line diagram; (ii) a site plan drawing showing the Project, including plan and elevation drawings showing the layout of the Transmission Interconnection Facilities: (iii) a relay functional diagram. relaying AC and DC schematic wiring diagrams, and relay settings for all facilities associated with the Project; and (iv) the impedances, determined by factory tests, for the associated transformers. The Approved Project Sponsor shall provide the Interconnecting PTO or other entity and the CAISO specifications for the protection settings, transformer tap settings, and communications, if applicable. The Interconnecting PTO or other entity and the CAISO shall assess any deviations from the relay settings. machine specifications, and other specifications originally submitted by the Approved Project Sponsor pursuant to the appropriate provisions of this Agreement and the agreement between the Approved Project Sponsor and the Interconnecting PTO or other entity.
- **5.6.3** The obligations under this Section 5.6, including Sections 5.6.1, 5.6.2, and 5.6.3, shall survive termination of this Agreement.



- 5.7 Delay in Project. If the CAISO receives notification from the Approved Project Sponsor that Project energization will be delayed beyond the date by which the CAISO found the Project to be needed, pursuant to Section 24.6.2 of the CAISO Tariff the CAISO shall issue a market notice to market participants stating that the Project is delayed. If applicable, the market notice shall also state that a plan is being developed to address potential NERC reliability standard violations as set forth in Section 24.6.3 of the CAISO Tariff, as well as any material concerns.
  - 5.7.1 The CAISO shall determine if there is a potential NERC violation, for either the CAISO or applicable Interconnecting PTO, arising from any Project energization delay and will determine if there are other material issues of concern as required in accordance with Section 24.6.3 of the CAISO Tariff. If there are potential violations or material issues, the CAISO, Approved Project Sponsor, and applicable Interconnecting PTO shall develop a plan to address the delay. The plan may include the CAISO directing the Interconnecting PTO to develop a mitigation plan.
  - **5.7.2** If violations or material issues cannot be promptly and adequately addressed, the CAISO will take action to resolve the issues, including determining if an alternative Project Sponsor is required.
- Delay in Approvals, Property Acquisition, or Construction. If the timeline set 5.8 forth in Appendix B is unreasonably delayed, the CAISO shall consult with the Approved Project Sponsor. After such consultation, should the CAISO determine that, for reasons other than a delay caused by the Interconnecting PTO, (i) the Approved Project Sponsor cannot secure necessary approvals or property rights, including fee title, right of way grant, and easement and license rights, essential for construction of the Project, or (ii) the Approved Project Sponsor is otherwise unable to timely construct the Project, or (iii) an alternative Project Sponsor is necessary pursuant to Section 24.6.4 of the CAISO Tariff; or, alternatively, if the Approved Project Sponsor determines that it is unable to proceed with construction and so notifies the CAISO, the CAISO shall take such action, including termination of this Agreement, as it determines to be necessary and appropriate in accordance with Section 24.6.4 of the CAISO Tariff. If either Party determines that an alternative Project Sponsor should be selected consistent with Section 24.6.4 of the CAISO Tariff, the Approved Project Sponsor agrees to work with CAISO, the alternative Project Sponsor, and, if applicable, the Interconnecting PTO to transfer responsibility for the Project to the alternative Project Sponsor.

# 5.9 Modification.

**5.9.1** The Approved Project Sponsor may undertake modifications to its facilities only with the approval of the CAISO and subject to the provisions of this Agreement and the CAISO Tariff. If the Approved Project Sponsor plans



to undertake a modification, it shall provide such information regarding such modification to the CAISO as the CAISO deems necessary to evaluate the potential impact of such modification prior to commencement of the work. Such information shall include information concerning the timing of such modification, any technical information, and cost impact. The Approved Project Sponsor shall provide the relevant drawings, plans, and specifications to the CAISO at least ninety (90) calendar days in advance of the commencement of the work or within such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned, or delayed. The CAISO shall determine if a modification is in accordance with the original Project criteria and intent and whether to approve the modification within thirty (30) calendar days after the Approved Project Sponsor's submission.

- **5.9.2** Any additions, modifications, or replacements made to the Project's facilities shall be designed, constructed, and operated in accordance with this Agreement, Applicable Laws and Regulations, and Good Utility Practice.
- 5.9.3 Any modifications to the Project's facilities ordered by a siting agency are not subject to CAISO approval. However, the Approved Project Sponsor is required to notify the CAISO within thirty (30) calendar days after the siting agency has issued an order directing Project modifications.

# 5.10 Generator Interconnection Study Process.

- 5.10.1 The Approved Project Sponsor shall be responsible for completing any existing studies for generator interconnection to the Project that were in the Approved Project Sponsor's generation interconnection queue upon the Effective Date of this Agreement. The CAISO and any impacted Participating TO will perform studies regarding such requests as an Affected System.
- 5.10.2 Any requests for generation interconnection to the Project submitted to the Approved Project Sponsor following the Effective Date of this Agreement shall be directed to the CAISO Interconnection Request process. The Approved Project Sponsor shall assume the functions of a Participating TO in accordance with Appendix DD of the CAISO Tariff, including performing Phase I, Phase II, and reassessment analysis for generator interconnection requests to the Project. The Approved Project Sponsor will be reimbursed the actual costs incurred for the analysis similar to the Participating TOs.
- **5.10.3** Any Generator Interconnection Agreements for interconnection to the Project shall be executed consistent with the relevant terms and conditions of the CAISO Tariff.



- **5.10.4** The obligations under this Section 5.10, including Sections 5.10.1, 5.10.2, 5.10.3, and 5.10.4 shall survive termination of this Agreement.
- 5.11 Planning Authority. The CAISO is the Planning Authority, as that term is defined by NERC, for the Project from the time it is identified in the CAISO's Transmission Planning Process and approved by the CAISO Governing Board, regardless of the status of Project construction or energization. As such, the Approved Project Sponsor shall be subject to the rights and obligations set forth in CAISO Tariff Section 24 that are applicable to Participating TOs as they pertain to the Project.
- **5.12 Tax Status.** Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the CAISO's or the Approved Project Sponsor's tax exempt status with respect to the issuance of bonds, including Local Furnishing Bonds, if any.

# **ARTICLE 6. TESTING AND INSPECTION**

- 6.1 Testing and Modifications. Prior to energizing the Project for testing, the Interconnecting PTO or other entity shall test the Interconnecting PTO's or other entity's Transmission Interconnection Facilities, and the Approved Project Sponsor shall test the Project to ensure their safe and reliable operation. All testing shall be coordinated and approved by the CAISO to ensure grid reliability. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. The Approved Project Sponsor shall not commence initial parallel operation of the Project until the Interconnecting PTO or other entity provides prior written approval to the CAISO and the Approved Project Sponsor.
- **6.2 Right to Observe Testing.** The Approved Project Sponsor shall notify the CAISO at least fourteen (14) calendar days in advance of its performance of tests. The CAISO has the right, at its own expense, to observe such testing.
- Right to Inspect. The CAISO shall have the right, but shall have no obligation, to (i) observe the Approved Project Sponsor's tests and/or inspection of any of its System Protection Facilities and other protective equipment; and (ii) review the settings of the Approved Project Sponsor's System Protection Facilities and other protective equipment at its expense. The CAISO may exercise these rights from time to time as it deems necessary upon reasonable notice to the Approved Project Sponsor. The exercise or non-exercise by CAISO of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Project or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that CAISO obtains through the exercise of any of its rights under this Section 6.3 shall be deemed to be Confidential Information and treated pursuant to Article 19 of this Agreement.



#### **ARTICLE 7. METERING**

Intentionally left blank

# **ARTICLE 8. COMMUNICATIONS**

8.1 Approved Project Sponsor Obligations. The Approved Project Sponsor shall maintain satisfactory operating communications with the CAISO in accordance with the provisions of the CAISO Tariff and with the Interconnecting PTO's or other entity's dispatcher or such other representative designated by the Interconnecting PTO or other entity during synchronization, testing, and energization. The Approved Project Sponsor shall provide standard voice line, dedicated voice line, and facsimile communications at the Project's control room or central dispatch facility through use of either the public telephone system or a voice communications system that does not rely on the public telephone system. The Approved Project Sponsor shall also provide the dedicated data circuits necessary to provide Approved Project Sponsor data to the CAISO and Interconnecting PTO as set forth in Appendix C. Security Arrangements Details. The data circuits shall extend from the Project to the locations specified by the CAISO and Interconnecting PTO. Any required maintenance of such communications equipment shall be performed by the Approved Project Sponsor. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, and equipment clearances.

# **ARTICLE 9. OPERATIONS**

- **9.1 General.** Each Party shall comply with Applicable Reliability Standards and the Applicable Reliability Council operating requirements. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.
- 9.2 CAISO Obligations. The CAISO shall cause the Interconnecting PTO's transmission system to be operated and controlled in a safe and reliable manner during testing and synchronization and before the Approved Project Sponsor turns the Project over to CAISO Operational Control. The CAISO may provide operating instructions to the Approved Project Sponsor consistent with this Agreement and the Interconnecting PTO's and CAISO's operating protocols and procedures as they may change from time to time. The Interconnecting PTO and CAISO will consider changes to their operating protocols and procedures proposed by the Approved Project Sponsor.



- 9.3 Approved Project Sponsor Obligations. The Approved Project Sponsor shall at its own expense operate, maintain, and control the Project in a safe and reliable manner and in accordance with this Agreement in advance of turning over Operational Control to the CAISO. Appendix A, Project Details, sets forth applicable requirements of the CAISO Balancing Authority Area and may be modified by mutual agreement of the Parties to reflect changes to the requirements as they may change from time to time. The Approved Project Sponsor shall not energize the Project with the Interconnecting PTO's or other entity's transmission system until the Interconnecting PTO or other entity provides prior written approval.
- **9.4 Start-Up and Synchronization.** The Parties shall establish agreed procedures for start-up, testing, and energization of the Project to the CAISO Controlled Grid prior to start-up of the Project. The Approved Project Sponsor shall be responsible for proper start-up and energization of the Project in compliance with the established procedures.

# ARTICLE 10. COST RECOVERY, BILLING, AND PAYMENT

- apply to FERC for a Transmission Revenue Requirement. The Approved Project Sponsor may apply to FERC for a Transmission Revenue Requirement for transmission facilities not yet in operation, but approved under the transmission planning provisions of the CAISO Tariff, that will be Regional Transmission Facilities or Local Transmission Facilities when placed under the CAISO's Operational Control. If FERC approves such Transmission Revenue Requirement, the CAISO shall incorporate the Transmission Revenue Requirement into the Regional Access Charge or Local Access Charge in accordance with the CAISO Tariff. The Approved Project Sponsor acknowledges and agrees with the cost estimates and the binding cost cap, or other binding cost containment measures, if applicable, set forth in Appendix E.
  - 10.1.1 The Approved Project Sponsor agrees that it shall not seek, for recovery through its Transmission Revenue Requirement, higher costs than the maximum costs specified in, or determined in accordance with, any cost cap or other binding cost containment measures as specified in Appendix E except for costs incurred to comply with any additional specifications of the CAISO or Interconnecting PTO beyond the functional requirements for the transmission facility that the CAISO issued for the competitive solicitation. The Approved Project Sponsor shall not seek recovery through its Transmission Revenue Requirement of any incentives or other costs that it has agreed to forego, as specified in Appendix E. The Approved Project Sponsor further agrees that the Transmission Control Agreement shall incorporate the Project cost cap or any other agreed-to binding cost containment measures agreed to or proposed by the Approved Project Sponsor. The provisions of this Section 10.1.1 shall survive termination of this Agreement.



- **10.2 Application of CAISO Tariff.** The CAISO and Approved Project Sponsor shall comply with the billing and payment provisions set forth in the CAISO Tariff.
- 10.3 Refund Obligation. The Approved Project Sponsor, whether or not it is subject to FERC rate jurisdiction under Section 205 and Section 206 of the Federal Power Act, shall make all refunds, adjustments to its Transmission Revenue Requirement, and adjustments to its Approved Project Sponsor Tariff, and do all other things required to implement any FERC order related to the CAISO Tariff, including any FERC order the implementation of which necessitates the CAISO making payment adjustments or paying refunds to, or receiving prior period overpayments from, the Approved Project Sponsor. All such refunds and adjustments shall be made, and all other actions taken, in accordance with the CAISO Tariff, unless the applicable FERC order requires otherwise. These obligations under this Section 10.3 shall survive termination of this Agreement.

#### ARTICLE 11. REGULATORY REQUIREMENTS AND GOVERNING LAWS

11.1 Regulatory Requirements. Each Party's obligations under this Agreement shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, and compliance with the prior notice requirements of such Governmental Authorities. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this Agreement shall require the Approved Project Sponsor to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act or the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978, or the Energy Policy Act of 2005.

# 11.2 Governing Law.

- **11.2.1** The validity, interpretation and performance of this Agreement and each of its provisions shall be governed by the laws of the state of California, without regard to its conflicts of law principles.
- **11.2.2** This Agreement is subject to all Applicable Laws and Regulations.
- **11.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.



# **ARTICLE 12. NOTICES**

12.1 General. Unless otherwise provided in this Agreement, any notice, demand, or request required or permitted to be given by a Party to another and any instrument required or permitted to be tendered or delivered by a Party in writing to another shall be effective when delivered and may be so given, tendered, or delivered by (i) recognized national courier, (ii) depositing the same with the United States Postal Service with postage prepaid for delivery by certified or registered mail, addressed to the Party, or (iii) personal delivery to the Party, at the address set out in Appendix D, Addresses for Delivery of Notices and Billings.

A Party must update the information in Appendix D as information changes. A Party may change the notice information in this Agreement by giving five Business Days written notice prior to the effective date of the change. Such changes shall not constitute an amendment to this Agreement.

- **12.2 Alternative Forms of Notice.** Any notice or request required or permitted to be given by a Party to another and not required by this Agreement to be given in writing may be given by telephone, facsimile, or e-mail to the telephone numbers and e-mail addresses set out in Appendix D.
- **12.4 Operations Notice.** Each Party shall notify the other Party in writing of the identity of the person that it designates as the point of contact with respect to the implementation of Article 9.
- **12.5 Project Management**. If the Approved Project Sponsor desires to change the identified project management, including key personnel, the Approved Project Sponsor shall notify the CAISO in writing thirty (30) calendar days in advance for approval. Such approval shall not be unreasonably withheld.

#### **ARTICLE 13. FORCE MAJEURE**

# 13.1 Force Majeure.

13.1.1 No Party shall be considered to be in Default with respect to any obligation hereunder if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Section shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred, and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not



be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

**13.1.2** If required, the Parties shall revise this Agreement, including Appendix B and Appendix E, following a Force Majeure event.

# **ARTICLE 14. DEFAULT**

- 14.1. General. No Default shall exist where failure to discharge an obligation, other than the payment of money, is the result of Force Majeure as defined in this Agreement or the result of an act or omission of the other Party. Upon a Breach, the affected non-Breaching Party shall give written notice of such Breach to the Breaching Party. The Breaching Party shall have thirty (30) calendar days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) calendar days, the Breaching Party shall commence such cure within thirty (30) calendar days after notice and continuously and diligently complete such cure within ninety (90) calendar days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.
- 14.2 Right to Terminate. If a Breach is not cured as provided in this Article, or if a Breach is not capable of being cured within the period provided for herein, the affected non-Breaching Party shall have the right to declare a Default and terminate this Agreement by written notice at any time until cure occurs and be relieved of any further obligation hereunder and, whether or not such Party terminates this Agreement, to recover from the Breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article shall survive termination of this Agreement.
- 14.3 Notice to Financing Parties. If, as contemplated by Section 16.1, the Approved Project Sponsor has provided notice to the CAISO of an assignment of this Agreement for collateral security purposes to aid in providing financing for the Project, then (a) if such notice of collateral assignment so indicates and contains notice information for the collateral assignee, the CAISO shall provide a copy to collateral assignee identified in such notice of any notice of Breach given by the CAISO to the Approved Project Sponsor and (b) such collateral assignee shall have the right, but no obligation, to effect cure of the Breach on behalf of the Approved Project Sponsor, and any performance of any obligations under this Agreement by such collateral assignee shall be accepted by the CAISO to the same extent as though the Approved Project Sponsor had directly performed such obligations.



# ARTICLE 15. INDEMNITY, CONSEQUENTIAL DAMAGES. AND INSURANCE

- **15.1 Indemnity.** Each Party (the "Indemnifying Party") shall at all times indemnify, defend, and hold the other Party (the "Indemnified Party") harmless from any and all Losses arising out of or resulting from the Indemnifying Party's action or inactions of its obligations under this Agreement, except in cases of negligence or intentional wrongdoing by the Indemnified Party.
  - **15.1.1 Indemnified Party.** If the Indemnified Party is entitled to indemnification under this Article 15 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Section 15.1 to assume the defense of such claim, such Indemnified Party may at the expense of the Indemnifying Party contest, settle, or consent to the entry of any judgment with respect to, or pay in full, such claim.
  - **15.1.2 Indemnifying Party.** If the Indemnifying Party is obligated to indemnify and hold the Indemnified Party harmless under this Article 15, the amount owing to the Indemnified Party shall be the amount of such Indemnified Party's actual Loss, net of any insurance or other recovery.
  - 15.1.3 Indemnity Procedures. Promptly after receipt by the Indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Section 15.1 may apply, the Indemnified Party shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by the Indemnifying Party and reasonably satisfactory to the Indemnified Party. If the defendants in any such action include the Indemnified Party and the Indemnifying Party and if the Indemnified Party reasonably concludes that there may be legal defenses available to it that are different from or additional to those available to the Indemnifying Party, the Indemnified Party shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Party having such differing or additional legal defenses.

The Indemnified Party shall be entitled, at its expense, to participate in any such action, suit, or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the



defense of any such action, suit, or proceedings if and to the extent that, in the opinion of the Indemnified Party and its counsel, such action, suit, or proceeding involves the potential imposition of criminal liability on the Indemnified Party, or there exists a conflict or adversity of interest between the Indemnified Party and the Indemnifying Party, in which event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Party, and (ii) shall not settle or consent to the entry of any judgment in any action, suit, or proceeding without the consent of the Indemnified Party, which shall not be unreasonably withheld, conditioned, or delayed.

- 15.2 Consequential Damages. In no event shall any Party be liable under any provision of this Agreement for any losses, damages, costs, or expenses for any special, indirect, incidental, consequential, or punitive damages, including loss of profit or revenue, loss of the use of equipment, cost of capital, or cost of temporary equipment or services, whether based in whole or in part in contract or in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under another agreement shall not be considered to be special, indirect, incidental, or consequential damages hereunder.
- **15.3 Insurance.** The Approved Project Sponsor shall carry insurance for the Project in accordance with good utility practice.
- **15.4 Continuity of Obligations.** The obligations and liability limitations under this Article 15 shall survive termination of the Agreement.

#### **ARTICLE 16. ASSIGNMENT**

**Assignment.** With the exception of assignment for collateral security purposes in accordance with this Section and Section 14.3, this Agreement may be assigned by a Party only with the written consent of the other Party, which consent shall not be unreasonably withheld. The CAISO will not approve the assignment unless the assignee (i) meets the competitive solicitation qualification requirements set for in CAISO Tariff Section 24.5.3.1; (ii) agrees to honor the cost containment measures or cost caps specified in Appendix E, if applicable; (iii) agrees to meet the factors that the CAISO relied upon in selecting the Approved Project Sponsor; and (iv) assumes the rights and obligations contained in this Agreement; provided, however, that the Approved Project Sponsor shall have the right to assign this Agreement, without the consent of the CAISO, for collateral security purposes to aid in providing financing for the Project, provided that the Approved Project Sponsor shall promptly notify the CAISO of any such assignment, including identification of the assignee and contact information. Any financing arrangement entered into by the Approved Project Sponsor pursuant to this Article shall provide that prior to or upon the exercise of the secured party's, trustee's, or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee, or mortgagee shall notify the CAISO of the date and



particulars of any such exercise of assignment rights. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof.

#### **ARTICLE 17. SEVERABILITY**

**17.1 Severability.** If any provision in this Agreement is finally determined to be invalid, void, or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void, or make unenforceable any other provision, agreement, or covenant of this Agreement.

#### **ARTICLE 18. COMPARABILITY**

**18.1 Comparability.** The Parties shall comply with all applicable comparability and code of conduct laws, rules, and regulations, as amended from time to time.

# **ARTICLE 19. CONFIDENTIALITY**

**19.1 Confidentiality.** Confidential Information shall include all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by a Party to the other Party prior to the execution of this Agreement.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by a Party, the other Party shall provide in writing the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

- **19.1.1 Term.** During the term of this Agreement, and for a period of three (3) years after the expiration or termination of this Agreement, except as otherwise provided in this Article, each Party shall hold in confidence and shall not disclose Confidential Information to any person.
- **19.1.2 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing



Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known through no wrongful act or omission of the receiving Party or Breach of this Agreement; or (6) is required, in accordance with Section 19.1.7 of this Agreement, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this Agreement. Information designated as Confidential Information shall no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

- 19.1.3 Release of Confidential Information. No Party shall release or disclose Confidential Information to any other person, except to its employees, consultants, Affiliates (limited by the Standards of Conduct requirements set forth in Part 358 of FERC's regulations, 18 C.F.R. Section 358), and subcontractors, or to parties who may be or considering providing financing to or equity participation with the Approved Project Sponsor, or to potential purchasers or assignees of the Approved Project Sponsor, on a need-to-know basis in connection with this Agreement, unless such person has first been advised of the confidentiality provisions of this Article and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article.
- 19.1.4 Rights. Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.
- 19.1.5 No Warranties. The mere fact that a Party has provided Confidential Information does not constitute a warranty or representation as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Party or to enter into any further agreements or proceed with any other relationship or joint venture.
- 19.1.6 Standard of Care. Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication, or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this Agreement or its regulatory requirements.



- 19.1.7 Order of Disclosure. If a court or another Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request or requirement so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party shall use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.
- 19.1.8 Termination of Agreement. Upon termination of this Agreement for any reason, each Party shall, within ten (10) calendar days after receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete, with such destruction, erasure, and deletion certified in writing to the other Party, or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party, unless subject to retention for litigation or regulatory purposes.
- 19.1.9 Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this Article. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article.
- 19.1.10 Disclosure to FERC, its Staff, or a State. Notwithstanding anything in this Article to the contrary, and pursuant to 18 C.F.R. Section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC or its staff, within the time



provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. Section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. A Party is prohibited from notifying the other Party prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 C.F.R. Section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

**19.1.11 Subject to the Exception in Section 19.1.10.** Subject to the exception in Section 19.1.10 and consistent with the provisions of Sections 19.1.3 and 19.1.7, Confidential Information shall not be disclosed by a Party to any person not employed or retained by that Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this Agreement or as a transmission service provider or a Balancing Authority including disclosing the Confidential Information to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of another Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this Section 19.1.11, the disclosing Party shall promptly notify the other Party in writing and shall assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order, or other reasonable measures.

# **ARTICLE 20. ENVIRONMENTAL RELEASES**

20.1 Each Party shall notify the other Party, first orally and then in writing, of the release of any Hazardous Substances, including hazardous wastes as defined by local, state, and federal law, any asbestos or lead abatement activities, or any type of remediation activities related to the Project or the Transmission Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (i) provide the notice as soon as practicable, for an occurrence that may present an immediate risk to human health or the environment; (ii) make a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence for an event that may present an immediate risk to human health or the



environment; and (iii) promptly furnish to the other Party information necessary for the designated Party to notify any Governmental Authorities of the event as required by law or Project-specific conditions. Copies of any publicly available reports shall be distributed to the other Party regarding such events.

#### **ARTICLE 21. INFORMATION ACCESS AND AUDIT RIGHTS**

- 21.1 Information Access. Each Party (the "disclosing Party") shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this Agreement; and (ii) carry out its obligations and responsibilities under this Agreement. The Parties shall not use such information for purposes other than those set forth in this Section 21.1 and to enforce their rights under this Agreement. Nothing in this Article shall obligate the CAISO to make available to a Party any third party information in its possession or control if making such third party information available would violate a CAISO Tariff restriction on the use or disclosure of such third party information.
- 21.2 Reporting of Non-Force Majeure Events. Each Party (the "notifying Party") shall notify the other Party when the notifying Party becomes aware of its inability to comply with the provisions of this Agreement for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation, or information provided under this Section shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this Agreement.
- **21.3 Audit Rights.** Subject to the requirements of confidentiality under Article 19 of this Agreement, the CAISO audit rights shall include the CAISO's right to audit the Approved Project Sponsor's costs pertaining to performance or satisfaction of obligations under this Agreement.
  - 21.3.1 The CAISO shall have the right, during normal business hours, and upon prior reasonable notice to the Approved Project Sponsor, to audit at its own expense the accounts and records pertaining to satisfaction of obligations under this Agreement. Subject to Section 21.3.2, any audit authorized by this Section 21.3 shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to performance and satisfaction of obligations under this Agreement. The Approved Project Sponsor shall keep such accounts and records for a period equivalent to the audit rights periods described in Section 21.4.



- **21.3.2** Notwithstanding anything to the contrary in this Agreement, the Approved Project Sponsor's rights to audit the CAISO's accounts and records shall be as set forth in Section 21.1 of the CAISO Tariff.
- 21.4 Audit Rights Period for Construction-Related Accounts and Records.

  Accounts and records related to the design, engineering, procurement, and construction of Project constructed by the Approved Project Sponsor shall be subject to audit and verification by the CAISO for a period of twenty-four months following the issuance of a final cost summary in accordance with Section 5.2.7.

#### **ARTICLE 22. SUBCONTRACTORS**

- **22.1 General.** Subject to Section 5.5.5, nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services, and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.
- 22.2 Responsibility of Principal. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the CAISO be liable for the actions or inactions of the Approved Project Sponsor or its subcontractors with respect to obligations of the Approved Project Sponsor under Article 4 of this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

#### **ARTICLE 23. DISPUTES**

- 23.1 General. All disputes arising out of or in connection with this Agreement whereby relief is sought by or from the CAISO shall be settled in accordance with the provisions of Section 13 of the CAISO Tariff, except that references to the CAISO Tariff in such Section 13 of the CAISO Tariff shall be read as references to this Agreement. Disputes arising out of or in connection with this Agreement not subject to provisions of Section 13 of the CAISO Tariff shall be resolved as follows:
- **23.2 Submission.** In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve



the claim or dispute through unassisted or assisted negotiations within thirty (30) calendar days after the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Agreement.

- **External Arbitration Procedures.** Any arbitration initiated under this Agreement 23.3 shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) calendar days after the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) calendar days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration, except prior arbitration. The arbitrator shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article, the terms of this Article shall prevail.
- 23.4 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator shall render a decision within ninety (90) calendar days after appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator shall be authorized only to interpret and apply the provisions of this Agreement and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator may be appealed solely on the grounds that the conduct of the arbitrator, or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with, and approved by, FERC if it affects jurisdictional rates, terms, and conditions of service, Transmission Interconnection Facilities, or Network Upgrades.
- **23.5 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.



# ARTICLE 24. REPRESENTATIONS, WARRANTIES, AND COVENANTS

- **24.1 General.** Each Party makes the following representations, warranties, and covenants:
  - **24.1.1 Good Standing.** Such Party is duly organized, validly existing, and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Project and transmission facilities owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted, and to enter into this Agreement and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this Agreement.
  - **24.1.2 Authority.** Such Party has the right, power, and authority to enter into this Agreement, to become a Party hereto, and to perform its obligations hereunder. This Agreement is a legal, valid, and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, or other similar laws affecting creditors' rights generally and by general equitable principles, regardless of whether enforceability is sought in a proceeding in equity or at law.
  - **24.1.3 No Conflict.** The execution, delivery, and performance of this Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement, or instrument applicable to or binding upon such Party or any of its assets.
  - 24.1.4 Consent and Approval. Such Party has sought or obtained, or, in accordance with this Agreement, will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery, and performance of this Agreement, and it will provide to any Governmental Authority notice of any actions under this Agreement that are required by Applicable Laws and Regulations.
  - **24.1.5 Technical Specifications Accurate.** The technical specifications provided by the Approved Project Sponsor to the CAISO are accurate and complete.



#### **ARTICLE 25. MISCELLANEOUS**

- **25.1 Binding Effect.** This Agreement and the rights and obligations hereof shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- **25.2 Conflicts.** In the event of a conflict between the body of this Agreement and any attachment, appendices, or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- Rules of Interpretation. This Agreement, unless a clear contrary intention 25.3 appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement, including this Agreement, document, instrument, or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section, or Appendix means such Article or Section of this Agreement or such Appendix to this Agreement, or such Section of the CAISO Tariff or such Appendix to the CAISO Tariff, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 25.4 Entire Agreement. This Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.
- **25.5 No Third Party Beneficiaries.** This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the



obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest, and, where permitted, their assigns.

**25.6 Waiver.** The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement shall not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this Agreement. Termination or Default of this Agreement for any reason by the Approved Project Sponsor shall not constitute a waiver of the Approved Project Sponsor's legal rights to obtain an interconnection from the CAISO. Any waiver of any provision of this Agreement shall, if requested, be provided in writing.

- **25.7 Headings.** The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- **25.8 Multiple Counterparts.** This Agreement may be executed in two or more counterparts, each of which is deemed an original but all of which constitute one and the same instrument.
- **25.9 Amendment.** The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all Applicable Laws and Regulations.
- **25.10 Modification by the Parties.** Except as described in Appendices B and E, the Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all Applicable Laws and Regulations.
- 25.11 Reservation of Rights. The CAISO has the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to any rates, terms and conditions, charges, classifications of service, rule, or regulation. The Approved Project Sponsor shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations. Each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered.



# APPROVED PROJECT SPONSOR AGREEMENT

- **25.12 No Partnership.** This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.
- **25.13 Joint and Several Obligations.** Except as otherwise provided in this Agreement, the obligations of the CAISO and the Approved Project Sponsor are several, and are neither joint nor joint and several.

[Signature page to follow]



**IN WITNESS WHEREOF,** the Parties have executed this Agreement in multiple originals, each of which shall constitute and be an original effective agreement between the Parties.

DCR T	ransmission, LLC	
Ву:	Docusigned by: Himanshu Saxuna  974D573F6EB4456	
Name:	Himanshu Saxena	
Title:	Managing Director	
Date:	12/1/2015	
California Independent System Operator Corporation		
Ву:	Docusigned by: Lette Casey  EED7FCA7283E48C	
Name:	Keith Casey	
Title:	VP Market & Infrastructure Development	
Doto	12/1/2015	



# **Appendices to Agreement**

Appendix A Project Details

Appendix B Milestones

Appendix C Security Arrangements Details

Appendix D Addresses for Delivery of Notices and Billings

Appendix E Approved Project Sponsor's Costs of Project

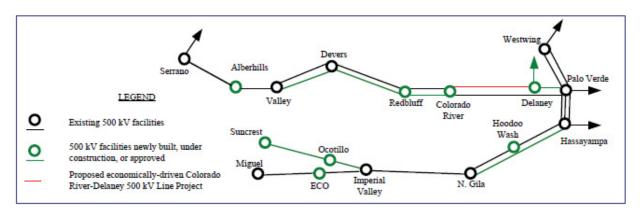


#### Appendix A

#### **Project Details**

#### 1. Description:

In the 2013-2014 Transmission Plan, the ISO has identified an economically-driven need for a 500 kV transmission line between SCE owned Colorado River 500 kV substation and APS owned Delaney 500 kV substation, as depicted below. Note: Delaney substation and the Delaney – Palo Verde transmission line are currently planned for construction.



The Project does not include facilities necessary at the Delaney and Colorado River substations that will be installed by the owners of those substations. The Project does include the requisite transmission line series compensation.

#### 2. Transmission Interconnection Facilities: None

#### 3. Network Upgrades:

Transmission Line Functional Specifications

Overhead Line Construction

Line Terminus 1: Colorado River Substation 500 kV Bus

Line Terminus 2: Delaney Substation 500 kV Bus

Nominal Phase to Phase Voltage: 500 kV

Minimum Line Continuous Ampacity - Summer: 3,800 Amps Minimum Line Continuous Ampacity - Winter: 3,800 Amps

Minimum Line 4 Hour Emergency Ampacity – Summer: 5,200 Amps

Minimum Line 4 Hour Emergency Ampacity – Winter: 5,200 Amps

Minimum Line 30 Minute Emergency Ampacity – Summer: 5,600 Amps



Minimum Line 30 Minute Emergency Ampacity – Winter: 5,600 Amps

Approximate Line Impedance: (0.00085 to 0.00115) + j(0.023 to 0.029) pu (100 MVA base) with 25% series compensation or (0.0012 to 0.0015) + j(0.027 to 0.033) pu (100 MVA base) with 35% series compensation. Option to be selected by DCRT and CAISO notified prior to procurement.

Maximum Line Resistance: 0.0015 pu (100 MVA base)

Approximate Line Length: 115-140 miles

Approximate Switched Shunt Line Reactor Capacity: 75 MVAR switched shunt reactor connected to the line at Colorado River terminal, 75 MVAR switched shunt reactor connected to the line at Delaney terminal. Note: the shunt reactors are not included in the scope of the Project however the CAISO expects that the Approved Project Sponsor will ensure that this equipment will be part of the equipment installed in Delaney and Colorado River substations to terminate the line.

Approximate Series Compensation Level: 25% or 35% Total as per "Approximate Line Impedance" options. Approved Project Sponsor must include provisions to automatically bypass the series capacitor due to faults in the series capacitor. Approved Project Sponsor shall also include a means to isolate the series capacitor to facilitate maintenance.

Location of Series Compensation: Approximately in the middle of the Colorado River-Delaney 500 kV line or equivalent compensation near the line termination station(s).

Minimum Series Capacitor Continuous Ampacity - Summer: 2,700 Amps

Minimum Series Capacitor Continuous Ampacity – Winter: 2,700 Amps

Minimum Series Capacitor 4 Hour Emergency Ampacity – Summer: 2,700 Amps

Minimum Series Capacitor 4 Hour Emergency Ampacity – Winter: 2,700 Amps

Minimum Series Capacitor 30 Minute Emergency Ampacity – Summer: 3,645 Amps

Minimum Series Capacitor 30 Minute Emergency Ampacity – Winter: 3,645 Amps

Support Structures: Single circuit structures

Shield Wire Required: Optical ground wire (minimum 6 pairs of fibers)

Failure Containment Loading Mitigation (anti-cascade structures, etc.): Per applicable codes

Shield Wire Ground Fault Withstand Ampacity: Coordinate with Interconnecting PTO and transmission entity that is not part of the CAISO Controlled Grid.

Aeolian Vibration Control (Conductor and Shield Wire): Vibration dampers must be installed on all conductors and overhead shield wires, with the exception of slack spans.

Transmission Line Minimum BIL: 1,800 kV with solidly grounded systems

Minimum ROW Width: Per applicable codes

The Approved Project Sponsor agrees that the Project will maintain sufficient spatial diversity from existing CAISO Controlled Grid facilities that will eliminate the potential for





a common mode contingency consistent with North American Electric Reliability Corporation (NERC) and/or Western Electricity Coordinating Council (WECC) reliability standards.

The Project will require multiple transmission line crossings. The Project Sponsor will be responsible for seeking the necessary approvals from the appropriate transmission owners in association with the transmission line crossings.

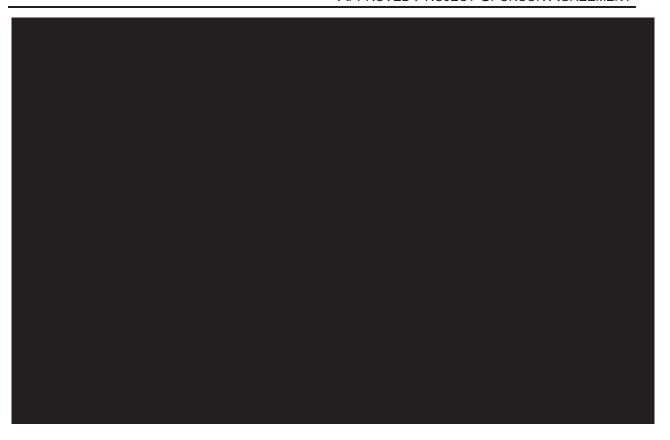
Governing Design and Construction Standards: (GO 95, NESC Code, applicable municipal codes).

Latest In Service Date: May 1, 2020\*

- \* Change in milestone date requires an amendment to this Agreement pursuant to Section 25.10.
- 4. **Distribution Upgrades:** None.
- 5. Diagram of Project:







#### 6. Project Team:

Abengoa T & I – EPC Contractor:

- Nicolas Gencarelli Project Director
- Ignacio Saralegui Construction Manager
- Olga Noguera Engineering Substation
- Vema Devavrath Engineering Transmission Line
- Javier Ramirez Alarcon Engineering Structures Design

#### Valley Electric Association - Operation & Maintenance

- Chris Tomchuk Executive Vice President of Operations and Engineering
- John Perra Operations Manager
- James Andresen Assistant Manager of Operations
- Martin Lytle Line Crew Superintendent
- Kristin Mettke Manager of Engineering
- Emily Schneider Operations and Compliance

#### HDR, Inc. - Environmental & Land

- Environmental, Permitting & Engineering
- Right of Way and Land Acquisition



#### 7. Additional Understandings between CAISO and Approved Project Sponsor:

- a. CAISO acknowledges that its standard practice is to treat all materials received from an approved project sponsor pursuant to an Approved Project Sponsor Agreement as confidential, and will apply that standard practice to Approved Project Sponsor with respect to this Agreement. Documents will not need to be marked as confidential for this practice to apply.
- b. In the event Approved Project Sponsor desires to change the identified project management in Appendix A Section 6, pursuant to Sections 5.5.5 and 12.5, if the CAISO does not object within ten (10) calendar days of receiving such notice the change shall be deemed to be approved. The Approved Project Sponsor will include in the change request the resume of the proposed team member or selected vendor.
- c. Subject to Approved Project Sponsor's compliance with the requirements of Section 14.3, CAISO will give notice to a collateral assignee of any contemplated termination of this Agreement pursuant to Section 5.8 after consultation with Approved Project Sponsor and prior to such termination.
- d. The CAISO will cooperate with any assignment for collateral security by reasonably responding to reasonable requests for estoppel certificates, consents, and acknowledgements.



# Appendix B

# Milestones

# 1. Milestone Dates:

Item	Milestone	Responsible Party	Due Date 1/
1	Commence development activities including commencement of regulatory approvals; acquisition of land; and permits	Approved Project Sponsor	July 13, 2015**
2	Submit request for Transmission Interconnection Service to the applicable Interconnecting PTO	Approved Project Sponsor	October 9, 2015**
3	Submit Construction Plan in accordance with Section 5.3.1 of this Agreement	Approved Project Sponsor	November 7, 2015 *
4	Submit Construction Plan Status Report in accordance with Section 5.3.2 of this Agreement	Approved Project Sponsor	February 5, 2016** May 5, 2016** August 3, 2016** November 1, 2016** January 30, 2017** April 30, 2017** July 29, 2017** October 27, 2017**
5	Complete permitting activities in accordance with Section 5.5.1.1 of this Agreement	Approved Project Sponsor	November 12, 2017**
6	Submit Construction Plan Status Report in accordance with Section 5.3.2 of this Agreement	Approved Project Sponsor	January 25, 2018**
7	Commence engineering design	Approved Project Sponsor	March 29, 2018**
8	Submit Construction Plan Status Report in accordance with Section 5.3.2 of this Agreement	Approved Project Sponsor	April 25, 2018**
9	Commence procurement including material and resources	Approved Project Sponsor	May 26, 2018**
10	Complete engineering design	Approved Project Sponsor	June 25, 2018**
11	Execute agreement with applicable Interconnecting PTO prior to commencement of construction	Approved Project Sponsor	
12	Commence Construction	Approved Project Sponsor	June 28, 2018**



	Milestone	Responsible Party	Due Date 1/
13	Submit Construction Plan Status	Approved Project	July 24, 2018**
	Report in accordance with Section	Sponsor	October 22, 2018**
	5.3.2 of this Agreement	•	,
14	Submit a Participating TO	Approved Project	January 1, 2019**
	application for the Project to the	Sponsor	
	CAISO in accordance with Section	-	
	4.3.1.1 of the CAISO Tariff		
15	Submit Construction Plan Status	Approved Project	January 20, 2019**
	Report in accordance with Section	Sponsor	April 20, 2019**
	5.3.2 of this Agreement		
16	Submit Project specifications in	Approved Project	April 20, 2019**
	accordance with Section 5.4.1 of	Sponsor	
	this Agreement		
17	Provide comments on Project	CAISO	May 20, 2019**
	specifications in accordance with		
	Section 5.4.1 of this Agreement		
18	Submit Construction Plan Status	Approved Project	July 19, 2019**
	Report in accordance with Section	Sponsor	
40	5.3.2 of this Agreement	A	1 1 40 0040##
19	Submit final Project specifications	Approved Project	July 19, 2019**
	in accordance with Section 5.4.2	Sponsor	
- 00	of this Agreement	CAISO	A
20	Provide comments on final Project	CAISO	August 18, 2019**
	specifications in accordance with Section 5.4.2 of this Agreement		
21	Complete procurement including	Approved Project	September 15,
21	material and resources	Sponsor	2019**
22	Commence Testing	Approved Project	October 17, 2019**
	Commence resumg	Sponsor	October 17, 2013
23	Submit Construction Plan Status	Approved Project	October 17, 2019**
	Report in accordance with Section	Sponsor	January 15, 2020**
	5.3.2 of this Agreement	-1	
24	Energization Date	Approved Project	May 1, 2020*
	J	Sponsor	-,
25	Complete Construction	Approved Project	May 1, 2020**
		Sponsor	
26	Submit Construction Plan Status	Approved Project	April 14, 2020**
	Report in accordance with Section	Sponsor	,
	5.3.2 of this Agreement	-	
27	In accordance with Section 5.6.2	Approved Project	August 29, 2020**
	provide final "as-built" drawings,	Sponsor	
	information and other documents		
28	In accordance with Section 5.6.1	Approved Project	May 1, 2021**
	provide final costs of the Project	Sponsor	

Dates in this Appendix B are good faith estimates and can be modified as follows:

<sup>\*</sup> Change in milestone date requires an amendment to this Agreement pursuant to Section 25.10.

<sup>\*\*</sup> Change in milestone date can be agreed to in writing by the representatives listed in Appendix D to this Agreement without further regulatory approval.



#### Appendix C

#### **Security Arrangements Details**

Infrastructure security of CAISO Controlled Grid equipment and operations and control hardware and software is essential to ensure day-to-day CAISO Controlled Grid reliability and operational security. FERC will expect the CAISO, and Approved Project Sponsor interconnected to the CAISO Controlled Grid to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

The Approved Project Sponsor shall meet the requirements for security implemented pursuant to the CAISO Tariff, including the CAISO's standards for information security posted on the CAISO's internet web site at the following internet address: <a href="http://www.caiso.com/pubinfo/info-security/index.html">http://www.caiso.com/pubinfo/info-security/index.html</a>.



#### **Appendix D**

#### Addresses for Delivery of Notices and Billings, including service of FERC filings:

#### **Notices:**

# **Approved Project Sponsor:**

DCR Transmission, LLC 2929 N. Central Avenue, Suite 1000 Phoenix, AZ 85012 Attention: Alyssa Koslow

Email: alyssa.koslow@abengoa.com

With a copy to:

Starwood Energy Group Global, LLC 591 West Putnam Ave. Greenwich, CT 06830 Attention: Madison Grose

Email: <u>legalnotice@starwood.com</u> <u>hsaxena@starwood.com</u> rweiss@Starwood.com

#### CAISO:

California ISO

Attn: Infrastructure Contracts & Management

250 Outcropping Way Folsom, CA 95630

Email: QueueManagement@CAISO.com

#### Alternative Forms of Delivery of Notices (telephone, facsimile or e-mail):

#### Approved Project Sponsor:

DCR Transmission, LLC Name: Alyssa Koslow Phone: (602) 282-8848 Facsimile: 602-274-0813

Email: alyssa.koslow@abengoa.com



Starwood Energy Group Global, LLC

Name: Himanshu Saxena Phone: (203) 422-7878 Facsimile: (203) 422-7879

Email: <a href="mailto:hsaxena@starwood.com">hsaxena@starwood.com</a>
<a href="mailto:legalnotice@starwood.com">legalnotice@starwood.com</a>
<a href="mailto:rweiss@Starwood.com">rweiss@Starwood.com</a>

#### CAISO:

Deb Le Vine

Phone: (916) 351-2144 Email: dlevine@caiso.com



# Appendix E

# **Approved Project Sponsor's Costs of Project**

The estimated cost components for the Project are as follows:

Transmission Line Costs	
Development	
Financing	
SPV – Management	
EPC Construction	
Project Management	
Equipment	
Construction Engineering	
Substation	
Transmission Line	
Other	
Total	\$ 241,805,391









# Appendix E-1 Strip Maps







A1610012

# APPENDIX O CAISO LETTER



September 6, 2016

Mr. Himanshu Saxena DCR Transmission, LLC 5 Greenwich Office Park Greenwich, CT 06831

RE:

Delaney-Colorado River 500 kV Transmission Project

Dear Mr. Saxena:

The Board of Governors of the California Independent System Operator Corporation (ISO) approved the Delaney-Colorado River 500 kV Transmission Project (Delaney-Colorado River Project) as part of the 2013-2014 Transmission Plan, as an economically driven transmission project that will also (1) promote state policy objectives by increasing the deliverability of renewable energy deliveries from the Imperial Valley area to California consumers and (2) enhance system reliability. The ISO awarded the Delaney-Colorado River Project to DCR Transmission LLC pursuant to a competitive solicitation process. The electrical capabilities the project is intended to provide were set out in the functional specification included in the 2013-2014 Transmission Plan.

The benefits of the Delaney-Colorado River Project derive from the increased share of transfers across the Palo Verde – Colorado River- Red Bluff - Devers transmission path with the transmission addition in service, as set out in the 2013-2014 Transmission Plan [Pages 254 and 255] which offload both the Eldorado-Lugo / Mohave-Lugo transmission paths and the North Gila – Imperial Valley transmission path. ISO studies showed that this change in flow levels would provide both increased economic benefits determined through production cost savings and capacity benefits based on forecast increases in overall import capacity. Further, the shift in loading patterns to the Palo Verde – Colorado River - Red Bluff - Devers transmission path supported higher renewable generation deliverability from the Imperial Valley area based on the renewable generation portfolios provided by the California Public Utilities Commission (CPUC), which the ISO uses in assessing the need for policy-driven transmission.

Although the specific details of the benefits of this transmission project have changed since the 2013-2014 Transmission Plan was approved by the ISO's Board of Governors, the ISO remains confident that the project as defined in the plan will provide significant advantages and value to ratepayers in the ISO footprint, as discussed above. The ISO is currently updating its prior analysis and intends to file testimony regarding project need and the ISO's continued support for the project in the CPUC's proceeding for a certificate of convenience and necessity as appropriate. The ISO intends to present its updated review of project need and costs pursuant to Public Utilities Code sections 1001 et seq. and General Order 131-D.

We encourage DCR Transmission to file its CPCN application with the CPUC as soon as feasible. Please contact me if we can be of any further assistance.

Sincerely,

Neil Millar

Executive Director, Infrastructure Development

NM/ds