

## **2008 Scope of KRSA Contracted Services**

### **Purpose**

This document describes in general terms the scope of contracted services to be provided by K.R. Saline and Associates, PLC (KRSA) in managing the WestConnect subregional transmission planning process for calendar year 2008.

KRSA's contracted relationship with the entities that have signed the WestConnect Project Agreement for Subregional Transmission Planning is established in a Contract for Professional Services effective May 23, 2007. The initial term of the contract is for two years and may be extended thereafter on a year to year basis. KRSA is obligated to provide professional services as WestConnect's planning staff consistent with the Scope of Contracted Services contained in Attachment 2 of the contract and as approved annually by WestConnect's Planning Management Committee.

### **2008 Scope of Contracted Services**

This document amends the original scope of contracted services to be provided by KRSA. The scope of contracted services to be provided by KRSA in 2008 falls within three primary areas of responsibilities.

1. Continue to develop, coordinate and manage a subregional planning process that yields an annual WestConnect Transmission Report and WestConnect Transmission Plan in accordance with the May 23, 2007 contract's original Attachment 2 Scope of Contracted Services.
2. Coordinate and nurture the study efforts of WestConnect approved study plans to be performed by subregional transmission planning groups active within the WestConnect subregional planning area.
3. Supplement the above scope of work with the addition of two technical studies to be performed respectively by KRSA on an annual and biennial cycle. These studies are to be incorporated as an integral element of the WestConnect subregional transmission planning process. The first study is an Annual Adequacy Study of the WestConnect Transmission Plan. The second is a WestConnect Biennial Long Range Transmission Study. Both technical studies are to be incorporated as line items in the WestConnect Planning Budget.

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Attachments (2):

Annual Adequacy Study of WestConnect Transmission Plan  
Biennial Long Range Transmission Study

# Annual Adequacy Study of WestConnect Transmission Plan

## Purpose

This document describes a WestConnect subregional transmission study that will be performed annually for WestConnect by K.R. Saline and Associates, PLC (KRSA). The study results and associated report will be incorporated in the subsequent WestConnect Transmission Report.

## Study Scope

WestConnect will annually perform a study to test the adequacy of its most recently published WestConnect Transmission Plan ("Plan"). The adequacy of the Plan will be determined by documenting system performance relative to WECC / NERC planning requirements. Traditional N-0, N-1 and N-2 contingency outages will be performed for the 5<sup>th</sup> and 10<sup>th</sup> year of the current planning period. Any deficiencies in the Plan will be noted with sufficient lead time for WestConnect subregional transmission planning participants to investigate solutions for incorporation into the subsequent WestConnect Transmission Plan.

In addition, corridor outages potentially involving planned facilities will be modeled and the resulting system performance documented. These corridor outages will only be performed in the 10<sup>th</sup> year of the current planning period. The purpose is to ascertain what degree of system reliability risk is associated with placing proposed projects in common with other facilities. Identification of such risks in advance of siting of new facilities is needed with sufficient lead time to explore alternative routes. It is not believed that studying such corridor outages in the 5<sup>th</sup> year of the study period would offer sufficient lead time to pursue alternate routes.

## Required Base Cases

This study will utilize a 5<sup>th</sup> and 10<sup>th</sup> year base case developed and coordinated for use in WestConnect's current subregional transmission planning cycle. The base case will incorporate the "sponsored and committed" transmission projects contained in the previously published WestConnect Transmission Plan. The base cases will not include the "conceptual" transmission projects contained in the WestConnect Transmission Plan because they have no sponsor and there is no firm commitment to build the projects by a specific date.

## Study Estimate

The hours and associated cost of KRSA contracted services to perform the study as outlined above is as follows:

|                                     |                    |           |
|-------------------------------------|--------------------|-----------|
| Develop Study Plan                  | 10 Hours Annually  | \$ 1,700  |
| Study                               | 200 Hours Annually | \$ 34,000 |
| Draft, Review, Publish Final Report | 40 Hours Annually  | \$ 6,000  |

# Biennial WestConnect Long Range Transmission Study

## Purpose

This document describes a WestConnect subregional transmission study that will be performed biennially for WestConnect by K.R. Saline and Associates, PLC (KRSA). The study results and associated report will be incorporated in even numbered year WestConnect Transmission Reports.

## Study Scope

WestConnect will biennially perform a study to explore the conceptual long range transmission needs within the WestConnect subregional transmission study area. The goal of the long range study is to develop and refine conceptual long range transmission options within the WestConnect subregional planning area beyond the 10<sup>th</sup> year study time period. The study will focus solely on the WestConnect subregional transmission planning area's system performance at a load level between that forecast for the 10<sup>th</sup> year in the WestConnect study period and twice the existing WestConnect area load level. Therefore, the study will be limited to power flow studies that investigate the system's performance for N-1 contingencies.

The scope of the WestConnect long range study will vary over time in order to address contemporary issues facing the industry. The conceptual projects studied in response to those contemporary issues will serve as an incubator for alternative transmission projects that may eventually become sponsored and added to a future WestConnect Transmission Plan. More importantly, the long range study process will broaden and extend the vision of future transmission line corridor needs in the WestConnect study area.

The initial WestConnect long range study will serve a two fold purpose. The first relates to the transmission planning interface between TEPPC and the subregional transmission planning groups. This functional requirement will be a routine feature of the long range study scope. The second is exemplary of a contemporary industry issue.

1. The study will provide traditional reliability oriented studies that investigate transmission solutions to long range congestion concerns raised by the annual TEPPC economic transmission expansion study report. As a result the study will need to explore a variety of generation expansion scenarios consistent with the prior TEPPC study. The results of the study will enable WestConnect to offer definitive transmission solution proposals for the subsequent TEPPC study cycle.
2. The initial long range study will explore conceptual transmission improvements needed to accommodate fully developed renewable resources from renewable energy zones (REZ) within the WestConnect subregional planning area. This study effort will incorporate the findings of the NREL renewables integration study, the Colorado REZ study, and the SWAT NM renewable energy study and the new SWAT AZ/NM renewable energy task force study effort.

## Biennial WestConnect Long Range Transmission Study

### Required Base Cases

This study will utilize a 10<sup>th</sup> year base case developed and coordinated for use in WestConnect's current subregional transmission planning cycle. This base case will incorporate the "sponsored and committed" transmission projects contained in the previously published WestConnect Transmission Plan. A second long range base case will contain a load level adjusted to twice the current year load for the WestConnect subregional planning area. This second base case will also model the "conceptual" transmission projects contained in the WestConnect Transmission Plan in a status "off" mode. The "conceptual" transmission projects will serve as a starter pool of potential transmission projects that could be called upon to ensure reliable service at the higher load level. Other conceptual transmission projects may be added to the pool of candidate projects as dictated by load and resource placement within the WestConnect study area.

### Study Estimate

The nature of the long range studies dictates that the study needs to straddle two consecutive WestConnect planning cycles. The labor hours and associated cost of KRSA contracted services to perform the initial study as outlined above is as follows:

|                                     |               | <u>2008</u>      | <u>2009</u>      |
|-------------------------------------|---------------|------------------|------------------|
| Develop Study Plan                  | 10 Hours      | \$ 1,700         |                  |
| Study                               | 200/300 Hours | \$ 34,000        | \$ 51,000        |
| Draft, Review, Publish Final Report | 100 Hours     | -                | \$ 15,000        |
|                                     |               | <u>\$ 35,700</u> | <u>\$ 66,000</u> |