

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

In the Matter of the Application of The Nevada )      Application 10-07-001  
Hydro Company for a Certificate of Public )      (Filed July 6, 2010)  
Convenience and Necessity for the Talega- )  
Escondido/Valley-Serrano 500 kV Interconnect. )  
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**Supplemental Direct Testimony of Rexford Wait**

**on behalf of**

**The Nevada Hydro Company**

November 30, 2010

**Supplemental Direct Testimony of Rexford Wait**

**on behalf of The Nevada Hydro Company**

1 Q. Please state your name and business address for the record.

2 A. My Name is Rexford Wait and my business address is 2416 Cades Way, Vista, California  
3 92081.

4 Q. By who are you employed?

5 A. I am employed by The Nevada Hydro Company (“TNHC”).

6 Q. Briefly describe your present responsibilities at TNHC.

7 A. I am Vice President of the Company with overall responsibility for the development of  
8 the TE/VS Interconnect project, particularly focusing on the engineering and cost aspects  
9 of the project.

10 Q. Briefly describe your educational and professional background.

11 A. I have been in the business of developing and constructing energy facilities my entire  
12 career. I have a degree in electrical and process controls, and have developed and  
13 constructed energy facilities in a variety of countries around the world.

14 Q. What is the purpose of your testimony?

15 A. I am submitting the tunneling cost estimate for the TE/VS Interconnect project.

16 Q. Please describe the tunneling cost estimate.

17 A. TNHC requested Barnard Construction Company, Inc. (“Barnard”) to provide an estimate  
18 of the tunneling costs for the TE/VS Interconnect project based on the Project  
19 Description described in Chapter 3 of the Proponent’s Environmental Assessment  
20 submitted with TNHC’s CPCN application. Barnard’s estimate is attached as Exhibit 1  
21 to my testimony.

22 Q. What is the estimate of the tunneling costs?

- 1 A. Barnard estimates the tunneling work to cost \$75 million. That amount is based on an  
2 18-month schedule which is consistent with the overall construction schedule described  
3 in the testimony of Mr. Ian Ramsay.
- 4 Q. Insofar as Barnard's estimate reflects a scope of work based on the Project Description  
5 described in Chapter 3 of the Proponent's Environmental Assessment, do you believe it  
6 to be correct?
- 7 A. Yes, I do.
- 8 Q. Is Barnard's estimate for the tunneling work utilized by any other witness to this  
9 proceeding?
- 10 A. Yes. Mr. Jim Drzemiecki includes the estimated cost of the tunneling work in his  
11 calculation of the project's revenue requirement.
- 12 Q. Does this conclude your testimony?
- 13 A. Yes, it does.

# **Exhibit 1**



## BARNARD CONSTRUCTION COMPANY, INC.

P.O. Box 99 ◦ Bozeman, MT 59771 ◦ (406) 586-1995 ◦ FAX (406) 586-3530

November 17, 2010

Mr. David Cates  
The Nevada Hydro Group  
2416 Cades Way  
Vista, CA 92083

**Subject: TEVS GIL Tunnels and Shafts High Level Estimate**

Mr. Cates:

We have reviewed our high level estimate pricing for the TEVS GIL Tunnels project using the latest information provided by Nevada Hydro. Our price in today's dollars is \$75 million.

- The work can be performed in 18 months after we are given access to the site to begin work. Permitting, geotechnical investigations, and design would need to have been completed prior to that and are not included in the above price.
- It includes the newer layout which was furnished to us October 15, 2010 and October 28, 2010.
- The estimate contains no contingency and should perhaps carry a 15% contingency.
- The shafts at the north and south ends of the Ridge Tunnel, as well as the shaft at the lower end of the Santa Rosa Tunnel, are all 30 ft. finished diameter and are concrete lined with a concrete floor.
- The two air vent shafts are 16 ft. finished diameter and have a concrete liner for the upper 15 vertical feet and a 6 inch thick fiber reinforced shotcrete liner for the remaining vertical distance. They have a concrete floor.
- The Vertical Access Shaft in the middle of the Ridge Tunnel is 16 ft finished diameter for its full 872 vertical feet. Again, the top 15 vertical feet will be concrete lined and the rest shotcrete lined.
- Both the Ridge Tunnel and the Santa Rosa Tunnel will have a concrete floor and the walls and ceiling will be shotcrete.
- Price includes disposal of tunnel/shaft excavation muck.
- Some of our costs are driven by an 18 month timeframe. If the project were to be stretched out over a much longer timeframe perhaps some significant cost savings could be achieved, but this would affect other aspects of the project's economic viability.

Please let us know if there is anything further we can do for you.

Sincerely,

Joe Nelson  
Vice President/Operations Manager

## CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of

**“SUPPLEMENTAL DIRECT TESTIMONY OF REXFORD WAIT ON BEHALF OF  
THE NEVADA HYDRO COMPANY”**

on all known parties to A.10-07-001 by transmitting an electronic mail message with the document attached to each person named in the official service list who provided an electronic mail address.

Executed this 30th day of November, 2010 at Washington, D.C.

/s/ Patrick L. Morand  
Patrick L. Morand  
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**Service List  
A.10-07-001**

**Last Updated November 23, 2010**

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