Wellhead Comments on 2012–2013 TPP Central Valley Study Scope

Wellhead supports the CAISO decision to expand the 2012-2013 TPP study to include a more extensive analysis of the Central Valley's transmission needs. However, simply evaluating another potential backbone-transmission upgrade without explicit consideration of the thousands of megawatts of potential local renewable generation resources that are close to load and could be made available with this investment seems very short-sighted and will not inform decisions makers as to the true value of these upgrades.

We believe it is abundantly clear that the Central Valley has very significant photovoltaic generation potential that has not been fully accounted for in any of the TTPs to date – the number of projects in the interconnection queue in this area and PG&E's active development of PV projects are clear evidence that this is a viable PV area with significant commercial interest (we acknowledge that the Westlands CREZ is in this area but it includes only a small fraction of the capability that the Central Valley offers). And a significant amount of the PV capability of the Central Valley could be delivered to load without the need for any significant transmission upgrades when you take account of project development realities (as compared to the unrealistic assumptions that all projects requesting interconnection will be built). Continuing to ignore the significant renewable potential the Central Valley can provide can do nothing but misinform decisions regarding transmission infrastructure that will allow California to meet it RPS goals at least total cost to consumers. Further, it will not support the effort the CAISO CEO said was needed to look for ways to reduce the cost of transmission infrastructure that is currently anticipated to go into CAISO transmission charges.

In our earlier comments on the 2012-2013 TPP Portfolios, we provide significant details about the resource potential this area provided that was not reflected. We refer you to those comments (which are attached hereto for convenience) rather than repeating them. We also note that this shortcoming was also pointed out in comments provided on the 2011-2012 TPP analysis.

A realistic Central Valley portfolio of solar resources needs to be developed and included in the Central Valley Study to ensure decision makers are properly informed of the value this area can provide in meeting California's RPS goals.

We look forward to continuing to participate in the CAISO's TPP to ensure it is providing accurate, realistic information that can be relied upon.

Wellhead Comments on 2012 – 2013 TPP Policy Portfolios

Wellhead appreciates the opportunity to comment on the portfolios that will be a primary driver in the 2012-2013 TPP process to identify policy driven facilities. In summary, the portfolios identified continue to have a major flaw in that they do NOT reflect current information as to the competitive viability of a significant resource area in central California.

There is something on the order of 100,000 acres of land that is owned by the Westlands Water District and a significant portion of this acreage is "drainage impacted" and thus is no longer usable for prime agricultural production. These lands are predominately outside of the Westlands CREZ and thus do not appear to be represented in the portfolios proposed for use in the 2012-2013 TPP. Wellhead also notes that this area was previously identified as having significant advantage from an environmental perspective as the land is previously disturbed and continues to be disturbed as it is used periodically for dry-land farming (i.e. low value crops that can survive based only on rainfall). Additionally, existing transmission facilities in the area of these lands are easily accessible and there are little or no system upgrades (beyond the basic interconnection) that would be required to accommodate significant amounts of generation at these locations.

Wellhead understands that historically, this area was not viewed as commercially viable because forecast costs of PV technologies were very high making with the result that only areas with the highest available solar radiation were possibly competitive. THAT IS NO LONGER THE CASE. There seems to be clear evidence of this change in the selection of projects in recent competitive solicitations by LSEs. Also, it is evidenced by solar thermal projects that have converted to pure PV.

The fact that PV has experienced significant reductions in its cost competiveness has also allowed the areas in which PV can compete to greatly expand. For the TPP, this means that PV projects do not necessarily new high voltage transmission lines to remote areas -- transmission can be avoided for many MW of PV in the central valley.

To fully understand the implications of this, we point the CAISO to a very recent *Statement before the Senate Finance Subcommittee on Energy, Natural Resources, and Infrastructure* on March 27. 2012, Dr. Benjamin Zycher which pointed out a number of key conclusions regarding transmission for renewables including:

- A survey of transmission studies for wind project conducted in 2001 to 2008 found that the median transmission cost was \$15 per mWh.
- An analysis by the CPUC for 33% renewables suggested a \$12 billion of investment in new transmission lines would be required with a result cost of \$6.39 per mWh.

Taking full account of the opportunity to avoid transmission costs that range from \$6.39 per mWh to over \$15 per mWh is clearly something the TPP should do. The portfolios need to be updated to include this resource potential.