UE-152253 / Pacific Power & Light Company February 10, 2016 WUTC Data Request 92

## **WUTC Data Request 92**

REQUESTED BY: Jeremy Twitchell Re: Bridger Selective Catalytic Reduction

Does the Company develop its own forward price curves for natural gas? If so, please explain the methodology used. If not, please identify the source of the forward price curves for natural gas and provide any forward natural gas curves provided to the Company by third parties in 2012 and 2013.

## **Response to WUTC Data Request 92**

Yes, PacifiCorp develops its own forward price curves (FPC) for natural gas.

PacifiCorp's official forward price curves (OFPC) for natural gas are developed using forward market prices in tandem with a fundamentals-based price forecast. The fundamentals-based forecast was developed using expert third-party forecasting services and published in nominal dollars using PacifiCorp inflation indices. The expert third-party fundamentals-based forecasts used to develop PacifiCorp's 2012–2013 OFPCs for Henry Hub and Opal delivery points are provided in Confidential Attachment WUTC 92.

The first 72 months of the curve, beginning with prompt month, represent broker quotes or settled forward prices per end-of-quarter quote date. A fundamentals-based price forecast is used exclusively beyond month 84. Transitional months 73 through 84 are an average of market months 61 through 72 with fundamental months 85 through 96, respectively. During the time of interest (2012, 2013) PacifiCorp subscribed to three major expert forecasting services—IHS CERA, PIRA, and Wood Mackenzie (WM). The adopted third-party forecast, or combination of forecasts, represents a moderate long-term view since it is either straddled by the other expert third-party forecasts or is in close harmony with at least one of the forecasts. This helps ensure that PacifiCorp's OFPC reflects more of a consensus view vis-à-vis a single firm's view.

Confidential Attachment WUTC 92 contains five forecasts from WM, three from PIRA, and two from IHS CERA. PacifiCorp's 2012 and March 2013 OFPCs adopted both WM's Henry Hub and bases forecast. The June 2013 OFPC coupled WM's Henry Hub forecast with bases from IHS-CERA. The September 2013 OFPC paired an adjusted WM Henry Hub forecast with bases from IHS CERA. The adjustment entailed applying the average combined annual percentage change of PIRA and IHS CERA's Henry Hub price, since June 2013, to that of the WM forecast. This was done to incorporate structural changes in natural gas markets occurring since WM's spring 2013 update but, due to WM's publication frequency, would not be available until later in 2013. Finally, the December 2013 OFPC adopted both PIRA's annual Henry Hub and bases coupled with WM's monthly profiles.

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Confidential information is provided subject to the terms and conditions of the confidentiality agreement in this proceeding.

Note: the confidential information provided in Confidential Attachment WUTC 92 is proprietary third party confidential information, the product of IHS CERA, PIRA and WM. At the specific request of these third parties, the provided information is limited to the Henry Hub and Opal natural gas markets.

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