

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Docket Nos. UE-121697 and UG-121705
Puget Sound Energy, Inc. and NW Energy Coalition
Joint Petition for Approval of a Decoupling Mechanism**

PUBLIC COUNSEL DATA REQUEST NO. 060

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Re: Testimony of Dr. Michael J. Vilbert, Exhibit No. MJV-1T, p. 19, II. 14-16.

- a) Is it Dr. Vilbert's opinion that a multi-stage DCF provides a better estimate of the cost of equity than does the traditional single-stage DCF? Please explain why or why not.
- b) At pages 16 and 17, Dr. Vilbert indicates that the cost of capital estimates used in its study of gas decoupling presented in this case were taken from those provided by Brattle Group cost of capital witnesses in various regulatory proceedings. Were all of those equity cost estimates provided by the Brattle Group analysts undertaken with a multi-stage DCF?
- c) Do the Brattle Group analysts calculate a multi-stage DCF uniformly? If so, please describe the manner in which it is calculated.
- d) Did the Brattle Group use a multi-stage DCF to estimate the cost of equity in its March 2014 paper regarding electric utility decoupling? If not, why not? Please describe the DCF model used to estimate the cost of equity in the March 2014 electric utility decoupling paper published by the Brattle Group.
- e) Please explain why, for the electric utility decoupling analysis, the Brattle Group calculated the quarterly cost of equity capital but for the gas utility decoupling analysis, the Brattle Group utilized equity cost estimates that were provided in rate proceedings by its witnesses.

Response:

- a) The multistage version of the discounted cash flow ("DCF") model is one of several ways to estimate the cost of capital. Because the cost of capital cannot be observed, but must be estimated, there is no way to determine whether it

provides a “better estimate of the cost of capital”. It is for this reason that most analysts report the results of multiple methods of estimating the cost of capital.

- b) To Dr. Vilbert’s knowledge, Brattle cost of capital witnesses always provide results from multiple models when testifying on the cost of capital with the exception of testimony at FERC. The FERC specifies a particular form of the DCF model and requires analysts to conform to that model. Analysts sometimes provide estimates from other models, but in Dr. Vilbert’s experience, those models do not seem to be given any weight by the FERC in setting the allowed return on equity (“ROE”).
- c) Dr. Vilbert always implements the same multistage DCF model in the same way. To his knowledge, other Brattle cost-of-capital witnesses implement the model in a similar way. Dr. Vilbert’s implementation of the multistage model is to use the long-term (i.e., 5-year) earnings per share (“EPS”) growth rate forecasts provided by security analysts for the growth rate in the first five years and an estimate of the growth of gross domestic product (“GDP”) as the estimate of the EPS terminal growth. The potential difference among analysts is the period of transition from the security analysts’ forecasts to the GDP forecast, as well as the pace of the transition. Dr. Vilbert uses a linear transition over a 5 year period, which means that the EPS growth is equal to the forecast of GDP growth in year 11.
- d) No. Unlike the gas local distribution company (“LDC”) study, the study published in March 2014 for the electric industry was requested by The Energy Foundation, and the study had a deadline. The companies in electric industry are much more diverse than those in the gas LDC industry with the result that there were more issues with data preparation. Although we were time constrained when preparing that study, it was always our intention to test the multistage DCF model, and we have since updated the study to reflect the multistage DCF model, as discussed in my testimony. Please refer to the response to part c) above for the methodology used to implement the multistage version of the DCF model.
- e) The gas LDC study relied upon cost of capital estimates submitted in a variety of regulatory proceedings. Brattle did not have access to historical EPS growth rate forecasts without paying a substantial fee so use of estimates that had already been subjected to the careful review required for presentation in a regulatory proceeding was a distinct advantage. In fact, without the historical ROE estimates, we would not have been able to perform the study. For the electric study, Brattle gained access to a data base with historical analyst EPS forecasts. This data permitted a different test structure. Specifically, we could space the estimates over even intervals through time instead of relying on the natural but uneven spacing of filing dates of actual regulatory proceedings. We selected a

quarterly interval which corresponds to the standard period for accounting reports and dividend payments.