determine the cost of debt and its flotation cost.

(ii) Where a company issued privately placed preferred stock that was not rated, the rating applied to debt could be used to determine the cost of preferred stock and its flotation costs.

(iii) In the case where all issues were privately placed, the current average yield on all newly issued debt or preferred could be used to determine the cost of debt or preferred respectively, and an average flotation cost, for debt or preferred, could be used.

(C) *Evidence Requirements.* Copies of this calculation with notations as to the source of the data must be submitted.

FOOTNOTES

(1) Ibbotson, R.E. and R.A. Sinquefield, *Stocks, Bonds, Bills, and Inflation,* Charlottesville, Va.: The Financial Analysts Research Foundation, 1977, cited by Ernst & Whinney, *Costs of Capital and Rates of Return for Industrial Firms and Class A&B Electric Utility Firms,* June 1979, p. 3–8.

(2) As an option, R_f t can be developed with the following equation:

$$R_f{}^t = \frac{365D^t}{360 - ND^t} \times \frac{1}{12}$$

where:

D^t=The average annual yield on three month U.S. Treasury bills reported in the *Survey of Current Business* auctioned in month t—which is reported using the bank discount method.
N=Number of days to maturity.

[46 FR 59920, Dec. 7, 1981]

APPENDIX II TO PART 504—FUEL PRICE COMPUTATION

(a) *Introduction.* This appendix provides the equations and parameters needed to specify the price of the delivered fuels to be used in the cost calculations associated with parts 503 and 504 of these regulations. The delivered price of the fuel to be used to calculate delivered fuel expenses must reflect (1) the price of each fuel at the time of the petition, and (2) the effects of future real price increases for each fuel. The delivered price of an alternate fuel used to calculate delivered fuel expenses must reflect the petitioner's delivered price of the alternate fuel and the effects of real increases in the price of that alternate fuel. Paragraphs (b), (c) and (d) below provide the procedure to: (1) Calculate fuel price and inflation indices; (2) account for projected real increases in fuel prices when planning to burn one or more than one fuel; and (3) account for projected real increases in the price of the alternate fuel. Table II–1 of this appendix (See paragraph (b)) contains example fuel price and inflation

indices based on the latest data appearing in the Energy Information Administration's (EIA) *Annual Energy Outlook* (AEO).

The fuel price and inflation indices will change yearly with the publication of the *AEO.* Revisions shall become effective after final publication. However, the relevant set of parameters for a specific petition for exemption will be the set in effect at the time the petition is submitted or the set in effect at the time a decision is rendered, whichever is more favorable to the petitioner.

(b) *Computation of Fuel Price and Inflation Indices.* (1) the Petitioner is responsible for computing the annual fuel price and inflation indices by using Equation II–1 and Equation II–2, respectively. The petitioner may compute the fuel price index specified in Equation II–1 or use his own price index. However, if he uses his own price index, the source or the derivation of the index must be fully documented and be contained in the evidential summary.

EQ II–2 is:

$$PX_i = \frac{P_i}{P_o}$$

where:
PX_i=The fuel price index for each fuel in year i. P_i=Price of fuel in year i.
P_o=Price of fuel in base year.

EQ II–2 is:

$$IX_i = \frac{GX_i}{GX_o}$$

where:
IX_i=The inflation index in year i.
GX_i=The NIPA GNP price deflator for year i.
GX_o=The NIPA GNP price deflator for the base year.

(2) The parameters to be used in EQ II–1 are the Base Case fuel price projections found in EIA's current *AEO.*

(3) When computing annual inflation indices, the petitioner is to use the Base Case National Macroeconomic Indicators (NIPA GNP Price Deflator) contained in EIA's current *AEO.* If necessary, the petitioner must rebase the projection to the same year used for the fuel price projections. For example, in 1989 *AEO* projects the price deflator in 1982 dollars; this must be rebased to the year in which the petition is filed. The methodology used to rebase the inflation indices must follow standard statistical procedures and must be fully documented within the petition. This index will remain frozen at the last year of the *AEO's* projection for the remainder of the unit'(s) useful life.

(4) Table II–1 is provided as an example of the application of equations II–1 and II–2. This table contains annual fuel price indices for distillate oil, residual oil, natural gas,

and coal. It also contains annual inflation indices. These values were computed from information contained in Table A3 and Table A11 of EIA's *AEO, 1989*.

TABLE II–1: PRICE AND INFLATION INDICES FOR USE IN THE COST CALCULATIONS

Year	Distillate (DPX)	Residual (RPX)	Natural gas (GPX)	Coal (CPX)	Inflation (IX)
1986	1.0000	1.0000	1.0000	1.0000	1.0000
1987	0.9810	1.2134	0.9508	0.9231	1.0334
1988	0.9429	0.9407	0.8934	0.8876	1.0658
1989	0.8929	0.9328	0.9057	0.8639	1.1054
1990	0.9905	1.0119	0.9221	0.9112	1.1607
1991	1.0381	1.0751	0.9344	0.9172	1.2204
1992	1.0929	1.1344	1.0205	0.9231	1.2836
1993	1.1595	1.2292	1.1148	0.9349	1.3512
1994	1.2286	1.3241	1.1844	0.9467	1.4214
1995	1.3000	1.4150	1.2705	0.9527	1.4960
1996	1.4000	1.5415	1.4016	0.9586	1.5768
1997	1.4762	1.6403	1.4918	0.9704	1.6585
1998	1.5452	1.7273	1.5615	0.9763	1.7410
1999	1.6143	1.7905	1.6475	0.9882	1.8235
2000	1.6690	1.8340	1.7049	0.9941	1.9025
2001	1.6690	I.8340	1.7049	0.9941	1.9025
2002	1.6690	1.8340	1.7049	0.9941	1.9025
2003	1.6690	1.8340	1.7049	0.9941	1.9025
2004	1.6690	1.8340	1.7049	0.9941	1.9025
2005	1.6690	1.8340	1.7049	0.9941	1.9025
2006	1.6690	1.8340	1.7049	0.9941	1.9025
2007	1.6690	1.8340	1.7049	0.9941	1.9025
2008	1.6690	1.8430	1.7049	0.9941	1.9025
2009	1.6690	1.8340	1.7049	0.9941	1.9025
2010	1.6690	1.8340	1.7049	0.9941	1.9025

(C) *Fuel Price Computation*. (1) The delivered price of the proposed fuel to be burned (FPB_i) must reflect the real escalation rate of the proposed fuel, and must be computed with Equation EQ II–3.

EQ-II-3 is: $FPB_i = MPB [PX_i]$

where:

FPB_i=Price of the proposed fuel (distillate oil, residual oil, or natural gas) in year i.
MPB=The current delivered market price of the proposed fuel.
PX_i=The fuel price index value in year i, computed with Equation II–1.

or:

(2) When planning to use more than one fuel in the proposed unit(s), the petitioner must use Equation II–1 and Equation II–3 to calculate the annual fuel price of each fuel to be used. The petitioner then must estimate the proportion of each fuel to be burned annually over the useful life of the unit(s). With these proportions and the respective annual fuel prices for each fuel, the petitioner must compute an annual weighted average fuel price. The methodology used to calculate the weighted average fuel price must follow standard statistical procedures and be fully documented within the petition.

(d) *Fuel Price Computation—Alternate Fuel.* The delivered price of alternate fuel (PFA_i) must reflect the real escalation rate of alternate fuel and must be computed with Equation II–4.

Equation II–4 is:

$PFA_i = APF \times apx_i$

where:

PFA=The price of the alternate fuel in year i.
APF^{-i}=The current market price of the alternate fuel f.o.b. the facility).
APX_i=The alternate fuel price index value for year i, computed with Equation II–1.

In most cases the alternate fuel will be coal. The petitioner must use Equation II–1 (paragraph (b)) to compute the escalation rate (APX_i). If an alternate fuel other than coal is proposed the source or the derivation of the index must be fully documented and be contained in the evidential summary.

[54 FR 52896, Dec. 22, 1989]

PART 508 [RESERVED]

PART 516 [RESERVED]