

165 FERC ¶ 61,030  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Kevin J. McIntyre, Chairman;  
Cheryl A. LaFleur, and Neil Chatterjee.

Martha Coakley, Attorney General of the Commonwealth of Massachusetts	Docket Nos. EL11-66-001 EL11-66-004
Connecticut Public Utilities Regulatory Authority	EL11-66-005
Massachusetts Department of Public Utilities	
New Hampshire Public Utilities Commission	
George Jepsen, Attorney General of the State of Connecticut	
Connecticut Office of Consumer Counsel	
Maine Office of the Public Advocate	
New Hampshire Office of the Consumer Advocate	
Rhode Island Division of Public Utilities and Carriers	
Vermont Department of Public Service	
Massachusetts Municipal Wholesale Electric Company	
Associated Industries of Massachusetts	
The Energy Consortium	
Power Options, Inc.	
Industrial Energy Consumer Group	

v.

Bangor Hydro-Electric Company  
Central Maine Power Company  
New England Power Company  
New Hampshire Transmission LLC  
Northeast Utilities Service Company, on behalf of  
its operating company affiliates: The Connecticut  
Light and Power Company,  
Western Massachusetts Electric Company, and  
Public Service Company of New Hampshire  
NSTAR Electric & Gas Corporation  
The United Illuminating Company  
Unitil Energy Systems, Inc.

Docket No. EL11-66-001, *et al.*

- 2 -

Fitchburg Gas and Electric Light Company  
Vermont Transco, LLC  
ISO New England Inc.

ENE (Environment Northeast)  
Greater Boston Real Estate Board  
National Consumer Law Center  
NEPOOL Industrial Customer Coalition

Docket Nos. EL13-33-000  
EL13-33-002

v.

Bangor Hydro-Electric Company  
Central Maine Power Company  
New England Power Company  
New Hampshire Transmission LLC  
NSTAR Electric Company  
Northeast Utilities Service Company  
The United Illuminating Company  
Unitil Energy Systems, Inc.  
Fitchburg Gas and Electric Light Company  
Vermont Transco, LLC

Attorney General of the Commonwealth of  
Massachusetts  
Connecticut Public Utilities Regulatory Authority  
Massachusetts Municipal Wholesale Electric  
Company  
New Hampshire Electric Cooperative, Inc.  
Massachusetts Department of Public Utilities  
New Hampshire Public Utilities Commission  
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Rhode Island Division of Public Utilities and  
Carriers  
Vermont Department of Public Service  
Associated Industries of Massachusetts  
The Energy Consortium  
Power Options, Inc.  
Western Massachusetts Industrial Group  
Environment Northeast

Docket No. EL14-86-000

Docket No. EL11-66-001, *et al.*

- 3 -

National Consumer Law Center  
Greater Boston Real Estate Board  
Industrial Energy Consumer Group

v.

Bangor Hydro-Electric Company  
Central Maine Power Company  
New England Power Company  
New Hampshire Transmission LLC  
Northeast Utilities Service Company, on behalf of  
its operating company affiliates: The Connecticut  
Light and Power Company, Western  
Massachusetts Electric Company, and Public  
Service Company of New Hampshire  
NSTAR Electric Company  
The United Illuminating Company  
Unitil Energy Systems, Inc.  
Fitchburg Gas and Electric Light Company  
Vermont Transco, LLC

Belmont Municipal Light Department  
Braintree Electric Light Department  
Concord Municipal Light Plant  
Georgetown Municipal Light Department  
Groveland Electric Light Department  
Hingham Municipal Lighting Plant  
Littleton Electric Light & Water Department  
Middleborough Gas & Electric Department  
Middleton Electric Light Department  
Reading Municipal Light Department  
Rowley Municipal Lighting Plant  
Taunton Municipal Lighting Plant  
Wellesley Municipal Light Plant

Docket Nos. EL16-64-000  
EL16-64-002

v.

Central Maine Power Company  
Emera Maine (formerly known as Bangor Hydro-  
Electric Company)  
Eversource Energy Service Company and its  
operating company affiliates: The Connecticut  
Light and Power Company, Western Massachusetts

Electric Company, Public Service Company of  
 New Hampshire, and NSTAR Electric Company  
 New England Power Company  
 New Hampshire Transmission LLC  
 The United Illuminating Company  
 Fitchburg Gas and Electric Light Company  
 Vermont Transco, LLC

## ORDER DIRECTING BRIEFS

(Issued October 16, 2018)

1. In *Emera Maine v. FERC*,<sup>1</sup> the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) vacated and remanded Opinion No. 531,<sup>2</sup> which addressed the New England Transmission Owners' (NETO) return on equity (ROE). The remand in that proceeding and three other proceedings involving NETOs' ROE are currently pending before the Commission. In this order, we propose a methodology for addressing the issues that were remanded to the Commission in *Emera Maine* and we establish a paper hearing on how this methodology should apply to the proceedings pending before the Commission involving NETOs' ROE.

### I. Background

#### A. Opinion No. 531 et seq.

2. On September 30, 2011, a group of transmission customers<sup>3</sup> in New England (Customers) filed a complaint<sup>4</sup> (First Complaint) under section 206 of the Federal Power

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<sup>1</sup> 854 F.3d 9 (D.C. Cir. 2017).

<sup>2</sup> *Coakley Mass. Attorney Gen. v. Bangor Hydro-Elec. Co.*, Opinion No. 531, 147 FERC ¶ 61,234 (2014), *order on paper hearing*, 149 FERC ¶ 61,032 (2014) (Opinion No. 531-A), *order on reh'g*, Opinion No. 531-B, 150 FERC ¶ 61,165 (2015).

<sup>3</sup> Customers include the state utility commissions of Connecticut, Massachusetts, New Hampshire, and Rhode Island; the Attorneys General of the State of Connecticut and of the Commonwealth of Massachusetts; Connecticut Office of Consumer Counsel; Maine Office of the Public Advocate; New Hampshire Office of Consumer Advocate; Massachusetts Municipal Wholesale Electric Utility Company; New Hampshire Electric Cooperative; Associated Industries of Massachusetts; and the Industrial Energy Consumer Group. After the complaint was filed a group of municipal utilities—the Eastern Massachusetts Consumer-Owned Systems (EMCOS)—intervened in support. (*continued ...*)

Act (FPA)<sup>5</sup> alleging that NETOs'<sup>6</sup> ROE was unjust and unreasonable. At the time of the First Complaint, NETOs had a base ROE of 11.14 percent and their total ROE—i.e., the base ROE plus any ROE adders approved by the Commission—was not permitted to exceed 13.5 percent. The Commission established NETOs' preexisting 11.14 percent base ROE in Opinion No. 489.<sup>7</sup> That ROE was based on a Discounted Cash Flow (DCF) analysis using financial data for the period July to December 2004, with an update based on the monthly yields of ten-year constant maturity U.S. Treasury bonds for the period March through August 2006.

3. On May 3, 2012, the Commission issued an order setting the First Complaint for hearing before an administrative law judge (ALJ) and establishing a refund effective date of October 1, 2011.<sup>8</sup> Following the hearing, the Commission issued Opinion No. 531.

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The EMCOS are Belmont Municipal Light Department; Braintree Electric Light Department; Concord Municipal Light Plant; Georgetown Municipal Light Department; Groveland Electric Light Department; Hingham Municipal Lighting Plant; Littleton Electric Light & Water Department; Middleborough Gas & Electric Department; Middleton Electric Light Department; Reading Municipal Light Department; Rowley Municipal Lighting Plant; Taunton Municipal Lighting Plant; and Wellesley Municipal Light Plant.

<sup>4</sup> Docket No. EL11-66-000.

<sup>5</sup> 16 U.S.C. § 824e (2012).

<sup>6</sup> NETOs are Emera Maine (f/k/a Bangor Hydro Electric Company); Central Maine Power Company; Eversource Energy Service Company (f/k/a Northeast Utilities Service Company) on behalf of: The Connecticut Light and Power Company, NSTAR Electric Company, Western Massachusetts Electric Company, and Public Service Company of New Hampshire; New England Power Company d/b/a National Grid; New Hampshire Transmission LLC; The United Illuminating Company; Unitil Energy Systems, Inc. and Fitchburg Gas and Electric Light Company; and Vermont Transco LLC.

<sup>7</sup> *Bangor Hydro-Elec. Co.*, Opinion NO. 489, 117 FERC ¶ 61,129 (2006), *order on reh'g*, 122 FERC ¶ 61,265 (2008), *order granting clarification*, 124 FERC ¶ 61,136 (2008), *aff'd sub nom. Conn. Dep't of Pub. Util. Control v. FERC*, 593 F.3d 30 (D.C. Cir. 2010).

<sup>8</sup> *Coakley, Mass. Attorney Gen. v. Bangor Hydro-Electric Co.*, 139 FERC ¶ 61,090 (2012). "Under Section 206 of the Federal Power Act, if FERC finds that any 'rate, charge, or classification' is 'unjust, unreasonable, unduly discriminatory or preferential,' the Commission is authorized to 'order refunds of any amounts paid' for a fifteen-month (*continued ...*)

As an initial matter, the Commission adopted certain changes to its use of the DCF methodology for evaluating and setting the Commission-allowed ROE. In particular, the Commission elected to replace the “one-step” DCF methodology, which considers only short-term growth projections for a public utility, with a “two-step” DCF methodology that considers both short- and long-term growth projections.<sup>9</sup> Applying the two-step DCF methodology and using financial data from the period October 2012 through March 2013, the Commission tentatively adopted a zone of reasonableness of 7.03 percent to 11.74 percent, subject to additional briefing regarding the appropriate long-term growth rate.<sup>10</sup>

4. The Commission, however, departed from its typical practice of setting the just and reasonable ROE of a group of utilities at the midpoint of the zone of reasonableness. The Commission explained that evidence of “anomalous” capital market conditions, including “bond yields [that were] at historic lows,” made the Commission “less confiden[t] that the midpoint of the zone of reasonableness . . . accurately reflects the [ROE] necessary to meet the *Hope* and *Bluefield* capital attraction standards.”<sup>11</sup> The Commission therefore looked to four alternative benchmark methodologies: Three financial models—a risk premium analysis (Risk Premium), a capital-asset pricing model analysis (CAPM), and an expected earnings analysis (Expected Earnings)—as well as a comparison with the ROEs approved by state public utility commissions.<sup>12</sup> In considering those methodologies, the Commission emphasized that it was not departing from its long-standing reliance on the DCF methodology, but rather relying on those

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period following the ‘refund effective date.’” *Braintree Elec. Light Dep’t v. FERC*, 667 F.3d 1284, 1291 (D.C. Cir. 2012) (quoting 16 U.S.C. § 824e)).

<sup>9</sup> Opinion No. 531, 147 FERC ¶ 61,234 at PP 8, 32-41.

<sup>10</sup> *Id.* PP 9-10.

<sup>11</sup> *Id.* PP 144-145 & n.285. “*Hope*” and “*Bluefield*” refer to a pair of Supreme Court cases that require the Commission “to set a rate of return commensurate with other enterprises of comparable risk and sufficient to assure that enough capital is attracted to the utility to enable it to meet the public’s needs.” *Boroughs of Ellwood City, Grove City, New Wilmington, Wampum, & Zelianople, Pa. v. FERC*, 731 F.2d 959, 967 (D.C. Cir. 1984) (citing *FPC v. Hope Nat. Gas Co.*, 320 U.S. 591, 603 (1944) (*Hope*) and *Bluefield Waterworks v. Pub. Serv. Comm’n of W.V.*, 262 U.S. 679 (1923) (*Bluefield*)).

<sup>12</sup> Opinion No. 531, 147 FERC ¶ 61,234 at PP 147-149.

methodologies only to “inform the just and reasonable placement of the ROE within the zone of reasonableness established . . . by the DCF methodology.”<sup>13</sup>

5. Based on these alternative methodologies, the Commission determined that an ROE of 10.57 percent, the midpoint of the upper half of the zone of reasonableness produced by the DCF, would be just and reasonable. Because that figure differed from NETOs’ existing 11.14 percent ROE, the Commission concluded that the existing base ROE had become unjust and unreasonable and it therefore set NETOs’ base ROE at 10.57 percent, pending a paper hearing concerning the long-term growth projection to use in the DCF analysis. Following that hearing, in Opinion No. 531-A the Commission reaffirmed its conclusion that 10.57 percent was the just and reasonable ROE and that NETOs’ existing ROE was unjust and unreasonable. In addition, the Commission explained that NETOs’ total ROE—i.e., the base ROE plus any transmission incentive ROE adders—could not exceed 11.74 percent, the top of the zone of reasonableness.<sup>14</sup> The Commission required NETOs’ to submit a compliance filing to implement their new ROEs effective October 16, 2014—the date of Opinion No. 531-A.

**B. Subsequent Complaints against NETOs’ ROE**

6. Three additional complaints have been filed against NETOs’ ROE. First, on December 27, 2012, a different group of transmission customers filed another complaint (Second Complaint) alleging that NETOs’ ROE, which was at that point still 11.14 percent, was unjust and unreasonable.<sup>15</sup> On June 19, 2014—the same day that the Commission issued Opinion No. 531—the Commission issued an order setting the Second Complaint for hearing before an ALJ and establishing a refund effective date of December 27, 2012.<sup>16</sup> Second, on July 31, 2014, Customers filed a third complaint

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<sup>13</sup> *Id.* P 146.

<sup>14</sup> Opinion No. 531-A, 149 FERC ¶ 61,032 at P 11.

<sup>15</sup> Docket No. EL13-33-000. The complainants in the Second Complaint are ENE (Environment Northeast), the Greater Boston Real Estate Board, the National Consumer Law Center, and the NEPOOL Industrial Customer Coalition. Several of the parties to the First Complaint subsequently intervened in the Second Complaint proceeding. Although the parties to the Second Complaint differed from the First Complaint, we will continue to refer to them simply as “Customers” because those differences are not relevant for the purposes of this order.

<sup>16</sup> *ENE (Environment Northeast) v. Bangor Hydro-Elec. Co.*, 147 FERC ¶ 61,235, at P 1 (2014).

(Third Complaint) once again contending that NETOs' 11.14 percent<sup>17</sup> base ROE was unjust and unreasonable.<sup>18</sup> On November 24, 2014, the Commission issued an order setting the Third Complaint for an ALJ hearing, consolidating the hearings on the Second Complaint and the Third Complaint, and establishing a refund effective date of July 31, 2014.<sup>19</sup>

7. On March 22, 2016, the ALJ issued an initial decision in the consolidated proceedings on the Second Complaint and the Third Complaint.<sup>20</sup> Regarding the Second Complaint, the ALJ adopted a zone of reasonableness of 7.12 percent to 10.42 percent based on financial data for the period September 2013 through February 2014.<sup>21</sup> The ALJ also determined that the anomalous market conditions identified in Opinion No. 531 persisted and, after considering the alternative benchmark methodologies, that the just and reasonable ROE was 9.59 percent—halfway between the midpoint and the upper bound of the zone of reasonableness.<sup>22</sup> Regarding the Third Complaint, the ALJ adopted a zone of reasonableness of 7.04 percent to 12.19 percent based on financial data for the period November 2014 through April 2015. After again finding the capital market conditions to be anomalous, the ALJ found that the alternative benchmark methodologies indicated that the just and reasonable ROE was 10.90 percent—halfway between the midpoint and the upper bound of the zone of reasonableness.<sup>23</sup> The parties to those proceedings have filed briefs on exception to the Commission, which has not yet issued an opinion on the ALJ's initial decision.

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<sup>17</sup> Although Customers filed the Third Complaint after the Commission issued Opinion No. 531, the Commission had not yet issued Opinion No. 531-A, which set the effective date for NETOs' 10.57 percent base ROE, meaning that the 11.14 percent figure remained in effect.

<sup>18</sup> Docket No. EL14-86-000. The parties to the Third Complaint included, among others, the parties to the First and Second Complaints. Once again, we will refer to them simply as "Customers."

<sup>19</sup> *Attorney Gen. of the Commonwealth of Mass. v. Bangor Hydro-Elec. Co.*, 149 FERC ¶ 61,156, at P 1 (2016).

<sup>20</sup> *ENE (Environment Northeast) v. Bangor Hydro-Elec. Co.*, 154 FERC ¶ 63,024 (2016).

<sup>21</sup> *Id.* P 629.

<sup>22</sup> *Id.* PP 824-825.

<sup>23</sup> *Id.* PP 930, 937.



8. Finally, on April 29, 2016, Customers filed a fourth complaint (Fourth Complaint) contending that NETOs' base ROE, which had by then been reduced to 10.57 percent, was unjust and unreasonable.<sup>24</sup> On September 20, 2016, the Commission again set the complaint for hearing before an ALJ and also established a refund effective date of April 29, 2016.<sup>25</sup> At the hearing, the parties presented updated financial information for their proposed proxy companies for the period May through October 2017. On March 27, 2018, the ALJ issued an initial decision on the Fourth Complaint.<sup>26</sup> The ALJ found that NETOs' base ROE of 10.57 percent, which with incentive adders may reach a maximum ROE of 11.74 percent, was not unjust and unreasonable and therefore, that it was unnecessary to reach the issue of what would be a just and reasonable alternative base ROE.<sup>27</sup> The ALJ found that neither EMCOS nor Commission Trial Staff (Trial Staff) had met their burden of producing a properly specified DCF analysis because, among other things, they improperly excluded a certain entity from their proxy groups and excluded proxy companies for which the Institutional Brokers Estimate System (IBES) reported no data, but failed to include those companies in their updates after IBES reported the data later.<sup>28</sup> The ALJ found that, because of the defects and deficiencies in the DCF analyses presented by EMCOS and Trial Staff, they had failed to meet their burden of proof under the first prong of *Emera Maine* to show that the existing ROE was unjust and unreasonable by means of a DCF analysis that they properly specified and applied to the facts of the case. The ALJ therefore found that it was unnecessary to reach the issue of whether the existing 10.57 percent base ROE fell within the statutory zone of just and reasonable rates envisioned by the FPA.<sup>29</sup> The ALJ also noted that it was unnecessary to delve further into the parties' evidence of "anomalous capital market conditions" and "alternative methodologies" to the DCF analyses because the EMCOS

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<sup>24</sup> Docket No. EL16-64-000. The Fourth Complaint was filed by EMCOS, whom we will again refer to simply as "Customers."

<sup>25</sup> *Belmont Mun. Light Dep't v. Cent. Maine Power Co.*, 156 FERC ¶ 61,198, at P 1 (2016).

<sup>26</sup> *Belmont Mun. Light Dep't v. Cent. Maine Power Co.*, 162 FERC ¶ 63,026 (2018).

<sup>27</sup> *Id.* PP 2-3.

<sup>28</sup> *See id.* PP 207-221.

<sup>29</sup> *Id.* P 227. As discussed in detail *infra*, the notion of a statutory zone of just and reasonable rates under the FPA is distinctly different from the zone of reasonableness produced by the Commission's DCF methodology and other financial models for estimating a company's cost of equity.

and Trial Staff, who had the burden of proof under the first prong, denied that “anomalous capital market conditions” existed and did not rely on that notion to satisfy their burden of proof under the first prong.<sup>30</sup>

C. *Emera Maine*

9. Both NETOs and Customers petitioned for review of Opinion No. 531 *et seq.* before the D.C. Circuit. NETOs and Customers advanced several arguments, two of which are relevant here. First, NETOs argued that the Commission did not satisfy the first prong of the FPA section 206 inquiry because it did not adequately demonstrate that NETOs’ existing 11.14 percent base ROE was unjust and unreasonable. NETOs argued that, because that 11.14 percent figure was within the zone of reasonableness produced by the DCF, the Commission erred in finding their existing ROE unjust and unreasonable. NETOs further argued that the Commission’s approach of determining what a just and reasonable ROE would be using the data from the study period compiled by the ALJ and comparing that value to the existing base ROE was insufficient to show that their existing base ROE was unjust and unreasonable.

10. Second, Customers argued that the Commission did not satisfy the second prong of the FPA section 206 inquiry because the Commission had not adequately shown that the 10.57 percent base ROE that it set in Opinion No. 531 was just and reasonable. Customers argued that the Commission had not adequately shown that the anomalous capital markets and the alternative benchmark methodologies justified a base ROE above the midpoint of the zone of reasonableness. They further argued that, in any case, the Commission had not demonstrated that 10.57 percent was an appropriate base ROE.<sup>31</sup>

11. In *Emera Maine*, the D.C. Circuit agreed with both NETOs and Customers and vacated and remanded Opinion No. 531 *et seq.* As an initial matter, the D.C. Circuit rejected NETOs’ argument that an ROE within the DCF-produced zone of reasonableness could not be deemed unjust and unreasonable. The D.C. Circuit explained that the zone of reasonableness established by the DCF is not “coextensive”

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<sup>30</sup> *Id.* P 226.

<sup>31</sup> NETOs and Customers raised additional arguments regarding other conclusions that the Commission reached in Opinion No. 531. For example, the Customers contended that anomalous market conditions did not justify any adjustment of NETOs’ ROE above the midpoint of the zone of reasonableness produced by the DCF analysis. The D.C. Circuit did not rely on these arguments as reasons for its decision vacating and remanding Opinion No. 531 and, for that reason, we need not summarize them further here.

with the “statutory” zone of reasonableness envisioned by the FPA.<sup>32</sup> Accordingly, the D.C. Circuit concluded that the fact that NETOs’ existing ROE fell within the zone of reasonableness produced by the DCF did not necessarily indicate that it was just and reasonable for the purposes of the FPA.<sup>33</sup>

12. Nevertheless, the D.C. Circuit agreed with NETOs that the Commission had not adequately shown that their existing ROE was unjust and unreasonable. The D.C. Circuit explained that the FPA’s statutory “zone of reasonableness creates a broad range of potentially lawful ROEs rather than a single just and reasonable ROE” and that whether a particular ROE is unjust and unreasonable depends on the “particular circumstances of the case.”<sup>34</sup> Thus, the fact that NETOs’ existing ROE did not equal the just and reasonable ROE that the Commission would have set using the current DCF analysis inputs did not necessarily indicate that NETOs’ existing ROE fell outside the statutory zone of reasonableness.<sup>35</sup> As such, the D.C. Circuit concluded that Opinion No. 531 “failed to include an actual finding as to the lawfulness of [NETOs’] existing base ROE” and that its conclusion that their existing ROE was unjust and unreasonable was itself arbitrary and capricious.<sup>36</sup>

13. The D.C. Circuit also agreed with Customers that the Commission had not adequately shown that the 10.57 percent ROE that it set was just and reasonable. Although recognizing that the Commission has the authority “to make ‘pragmatic adjustments’ to a utility’s ROE based on the ‘particular circumstances’ of a case,” the D.C. Circuit nevertheless concluded that the Commission had not explained why setting the ROE at the upper midpoint was just and reasonable.<sup>37</sup> The D.C. Circuit noted, in particular, that the Commission relied on the alternative models and state-regulated ROEs to support a base ROE *above* the midpoint, but that it did not rely on that evidence to

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<sup>32</sup> *Emera Maine*, 854 F.3d at 22-23.

<sup>33</sup> *Id.* at 23.

<sup>34</sup> *Id.* at 23, 26.

<sup>35</sup> *Id.* at 27 (“To satisfy its dual burden under section 206, FERC was required to do more than show that its single ROE analysis generated a new just and reasonable ROE and conclusively declare that, consequently, the existing ROE was per se unjust and unreasonable.”).

<sup>36</sup> *Id.*

<sup>37</sup> *Id.* (quoting *FPC v. Nat. Gas Pipeline Co.*, 315 U.S. 575, 586 (1942)).

support an ROE *at* the upper midpoint.<sup>38</sup> In other words, the Court was concerned that the 10.57 percent ROE that the Commission identified as the just and reasonable rate was divorced from the numerical results of the alternative models.<sup>39</sup> Similarly, the D.C. Circuit noted that the Commission had concluded that a base ROE of 9.39 percent—the midpoint of the zone of reasonableness—might not be sufficient to satisfy *Hope* and *Bluefield* or to allow the utility to attract capital, but that the Commission had not similarly explained how a 10.57 percent base ROE was sufficient to meet either of those conditions. Because the D.C. Circuit found that the Commission had not pointed to record evidence supporting the specific point at which it set NETOs' ROE, the D.C. Circuit held that the Commission had not articulated the “rational connection” between the evidence and the rate that the FPA demands.<sup>40</sup>

14. Based on those two conclusions—that the Commission had not met its burden either under the first or the second prong of FPA section 206—the D.C. Circuit vacated and remanded Opinion No. 531 *et seq.*<sup>41</sup> Thus, the current state of affairs is this: There are four currently pending complaints against NETOs' ROE, all of which have been fully litigated before an ALJ. The D.C. Circuit vacated the Commission's determinations in its order on the First Complaint (i.e., Opinion No. 531), meaning that they are no longer precedential,<sup>42</sup> even though the Commission remains free to re-adopt those determinations on remand as long as it provides a reasoned basis for doing so.<sup>43</sup> In the meantime, NETOs are continuing to collect their 10.57 percent base ROE, although the Commission has indicated that it will exercise its “broad remedial authority” to correct its legal error in order to make whatever ROE it sets on remand effective as of the date of Opinion No. 531-A.<sup>44</sup>

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<sup>38</sup> *Id.* at 29 (“FERC’s reasoning is unclear. On the one hand, it argued that the alternative analyses supported its decision to place the base ROE above the midpoint, but on the other hand, it stressed that none of these analyses were used to select the 10.57 percent base ROE.”).

<sup>39</sup> *Id.* at 28 (faulting the Commission for failing to “establish a ‘rational connection’ between the record evidence and its decision.”)

<sup>40</sup> *Id.* at 28-30.

<sup>41</sup> *Id.* at 30.

<sup>42</sup> *ISO New England Inc.*, 161 FERC ¶ 61,031, at P 28 (2017).

<sup>43</sup> *Emera Maine*, 854 F.3d at 30.

<sup>44</sup> *ISO New England Inc.*, 161 FERC ¶ 61,031 at PP 24, 34.

## II. Determination

15. In this order, we describe how the Commission intends to address the issues that were remanded to the Commission in *Emera Maine*. In short, we intend to give equal weight to the results of the four financial models in the record, instead of primarily relying on the DCF model. In relying on a broader range of record evidence to estimate NETOs' cost of equity, we ensure that our chosen ROE is based on substantial evidence and bring our methodology into closer alignment with how investors inform their investment decisions.

16. We begin with the Commission's proposed framework for determining whether an existing ROE remains just and reasonable (i.e., the first prong of the FPA section 206 analysis). Specifically, we propose (1) relying on the three financial models that produce zones of reasonableness—the DCF, CAPM, and Expected Earnings models—to establish a composite zone of reasonableness; and (2) relying on that composite zone of reasonableness as an evidentiary tool to identify a range of presumptively just and reasonable ROEs for utilities with a similar risk profile to the targeted utility. Under this approach, we intend to dismiss an ROE complaint if the targeted utility's existing ROE falls within the range of presumptively just and reasonable ROEs for a utility of its risk profile—unless that presumption is sufficiently rebutted.

17. We then turn to the Commission's proposed framework for establishing a new just and reasonable ROE, where the existing ROE has been shown to be unjust and unreasonable (i.e., the second prong of the FPA section 206 analysis). At that stage, we propose to rely on all four financial models in the record—i.e., the three listed above, plus the Risk Premium model<sup>45</sup>—to produce four separate cost of equity estimates. We propose to then give them equal weight by averaging the four estimates to produce the just and reasonable ROE. For each of the DCF, CAPM, and Expected Earnings models, we propose to use the central tendency of the respective zones of reasonableness as the cost of equity estimate for average risk utilities.<sup>46</sup> We would then average those three

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<sup>45</sup> Unlike the DCF, CAPM, and Expected Earnings models, the output of the Risk Premium model is a numerical point and therefore, it does not produce a range which can be used to determine a zone of reasonableness. Accordingly, we propose to use the Risk Premium model output in the second prong of the FPA section 206 analysis where we determine a specific just and reasonable ROE, but not in the first prong of the analysis, which requires models that produce a range that can be used to determine a zone of reasonableness.

<sup>46</sup> The Commission will continue to use the midpoint of the zone of reasonableness as the appropriate measure of central tendency for a diverse group of average risk utilities and the median as the measure of central tendency for a single  
(*continued ...*)

midpoint/median figures with the sole numerical figure produced by the Risk Premium model to determine the ROE of average risk utilities. We would use the midpoint/medians of the resulting lower and upper halves of the zone of reasonableness to determine ROEs for below or above average risk utilities, respectively. Because our current policy is to cap a utility's total ROE, *i.e.*, its base ROE plus incentive ROE adders, at the top of the zone of reasonableness, we propose to use the composite zone of reasonableness produced by the DCF, CAPM, and Expected Earnings to establish the cap on a utility's total ROE.

18. After explaining our proposed frameworks for the first and second prongs of our FPA section 206 analysis, we then perform an illustrative calculation using record evidence from the First Complaint proceeding. That calculation indicates that, for the time period at issue in the First Complaint, (1) the range of presumptively just and reasonable ROEs for NETOs is 9.60 percent to 10.99 percent; (2) NETOs' preexisting ROE of 11.14 is therefore unjust and unreasonable; (3) the just and reasonable ROE is 10.41 percent; and (4) the cap on NETOs' total ROE is 13.08 percent. However, these findings are merely preliminary. We conclude by establishing a paper hearing on how our proposed frameworks should apply to the four proceedings involving NETOs' ROE.

**A. Determining Whether an Existing ROE has Become Unjust and Unreasonable**

19. In this section we outline a new approach for determining whether an existing ROE remains just and reasonable. That new approach reflects the Commission's proposed policy for addressing this issue in the future, including in the proceedings currently pending before the Commission. Before outlining that approach, however, we review the guidance that the D.C. Circuit has provided regarding this task.

**1. Background**

20. The D.C. Circuit has explained that, to satisfy the first prong of an FPA section 206 inquiry into an ROE, the Commission must "make an explicit finding that [an] existing [ROE is] unjust and unreasonable before proceeding to set a new rate."<sup>47</sup> Although *Emera Maine* held that a difference between the existing ROE and the just and reasonable ROE that the Commission would set under current circumstances is, by itself, insufficient to show that the existing ROE is unjust and unreasonable, the D.C. Circuit has also held that a comparison between the existing ROE and the just and reasonable

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utility. *See S. Cal. Edison Co.*, 131 FERC ¶ 61,020, at P 91 (2010), *remanded on other grounds sub nom. S. Cal. Edison Co. v. FERC*, 717 F.3d 177, 183-87 (D.C. Cir. 2013).

<sup>47</sup> *Emera Maine*, 854 F.3d at 24.

ROE that the Commission would establish under current circumstances is relevant—and, in some cases, determinative—for whether the existing ROE remains just and reasonable.<sup>48</sup> In addition, the D.C. Circuit has explained that, although showing that an existing ROE is entirely outside a zone of reasonableness produced by a financial model, such as the DCF methodology, is one way of demonstrating that an existing ROE is unjust and unreasonable, it is not the *only* way in which FERC can satisfy its burden under the first prong of FPA section 206.<sup>49</sup> The Commission may also find that an existing ROE—even one that is within the zone of reasonableness produced by its financial analysis—is unjust and unreasonable based on the “particular circumstances” of the case.<sup>50</sup>

21. The D.C. Circuit has not discussed in detail what “particular circumstances” are relevant to that determination in the context of an FPA section 206 proceeding. Nevertheless, it has, in the context of an FPA section 205 proceeding, noted factors that may be relevant to determining whether an ROE is just and reasonable.<sup>51</sup> Chief among those factors is the company’s risk profile, with a riskier profile indicating that a higher ROE may be appropriate.<sup>52</sup> As the Supreme Court explained in *Hope*, when describing

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<sup>48</sup> *Papago Tribal Util. Auth. v. FERC*, 723 F.2d 950, 957 (D.C. Cir. 1983) (concluding that the difference between the existing ROE and the just and reasonable ROE that the Commission would have set was sufficient *as a matter of law* to show the existing rate was unjust and unreasonable); *see also Emera Maine*, 854 F.3d at 26 (explaining that the Commission’s “finding that 10.57 percent was a just and reasonable ROE, *standing alone*, ‘did not amount to a finding that every other rate of return was not’” (citing *Papago*, 723 F.2d at 957) (emphasis added)).

<sup>49</sup> *Emera Maine*, 854 F.3d at 24; *see also Pub. Serv. Comm’n of State of N.Y. v. FERC*, 642 F.2d 1335, 1350 n.27 (D.C. Cir. 1980) (finding that the fact that an existing ROE was outside the zone of reasonableness was sufficient to carry the Commission’s burden to show that an existing rate was unjust and unreasonable under the analogous section 5 of the Natural Gas Act).

<sup>50</sup> *Emera Maine*, 854 F.3d at 23, 26.

<sup>51</sup> *See, e.g., NEPCO Mun. Rate Comm. v. FERC*, 668 F.2d 1327, 1344 (D.C. Cir. 1981) (observing in the context of a challenge to the Commission approval of an FPA section 205 filing, which, among other things, established an ROE, that “[r]atemaking is a complicated process involving many factors, e.g., money market conditions, financial health of the utility, and financial risks.”).

<sup>52</sup> *Petal Gas Storage, L.L.C. v. FERC*, 496 F.3d 695, 700 (D.C. Cir. 2007); *Canadian Ass’n of Petroleum Producers v. FERC*, 254 F.3d 289, 295 (D.C. Cir. 2001) (*continued ...*)

what has become the standard for evaluating whether an ROE is just and reasonable under the FPA, a utility's ROE "should be commensurate with returns on investments in other enterprises *having corresponding risks*."<sup>53</sup> Indeed, the D.C. Circuit has explained that failing to consider a utility's risk profile, at least relative to the proxy group companies, can itself be arbitrary and capricious.<sup>54</sup> In addition, the D.C. Circuit has noted that financial considerations, such as the state of the capital markets, the financial condition of the utility in question, and other "financial risks" may also be relevant.<sup>55</sup>

## 2. Proposed Approach

22. We now propose to adopt a new framework for evaluating whether an existing ROE remains just and reasonable for purposes of the first prong of FPA section 206. In sum, we propose to establish a range of presumptively just and reasonable ROEs, within the zone of reasonableness indicated by the record evidence. As explained below, this framework reflects the D.C. Circuit's guidance, both in *Emera Maine* as well as in the D.C. Circuit's other decisions regarding the determination of a just and reasonable ROE.

23. The Commission has long relied on a financial model to guide its evaluation of whether an ROE is just and reasonable.<sup>56</sup> As explained below, we propose to continue

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(noting that, after establishing a proxy group, the Commission "then determin[es] where [the filing entity] belong[s] within that group, in large part on the basis of . . . business risk"); *Williston Basin Interstate Pipeline Co. v. FERC*, 165 F.3d 54, 57 (D.C. Cir. 1999) ("Once the Commission has defined a zone of reasonableness . . . , it then assigns . . . a rate within that range to reflect specific investment risks . . . as compared to the proxy group companies."); *see also Emera Maine*, 854 F.3d at 29-30 (discussing instances in which the Commission had awarded a higher ROE because "the utility at issue was riskier than the proxy group.").

<sup>53</sup> *Hope*, 320 U.S. 591 at 603 (emphasis added); *Petal Gas*, 496 F.3d at 698 (discussing this standard in the context of whether rates are just and reasonable).

<sup>54</sup> *Petal Gas*, 496 F.3d at 700.

<sup>55</sup> *See, e.g., Aera Energy LLC v. FERC*, 789 F.3d 184, 194 (D.C. Cir. 2015) (observing that, in general, "'the higher the proportion of equity capital, the lower the financial risk . . . and thus, in this respect, the lower the necessary rate of return' on equity." (quoting *Missouri Pub. Serv. Comm'n v. FERC*, 215 F.3d 1, 2 (D.C. Cir. 2000))); *NEPCO*, 668 F.2d at 1344 (listing considerations for setting the ROE, including the health of the utility and its "financial risk.").

<sup>56</sup> *See generally Emera Maine*, 854 F.3d at 21 (explaining the Commission's approach to setting ROE); *Canadian Ass'n of Petroleum Producers v. FERC*, 308 F.3d (continued ...)



using an analysis of the relevant financial considerations to establish an initial zone of reasonableness. However, as the D.C. Circuit observed in *Emera Maine*, even where the Commission’s financial analysis produces an initial zone of reasonableness, the presence of that record evidence is not necessarily the end of the inquiry, and it is not a proxy for the just and reasonable standard in the FPA. Instead, the Commission may look to the particular circumstances of the case to determine whether an ROE—even one that falls within that zone—is just and reasonable for purposes of the first prong of FPA section 206.<sup>57</sup>

24. Consistent with the Commission’s established practice and the D.C. Circuit’s guidance, we continue to find that a utility’s risk profile remains the “particular circumstance[.]” most relevant to determining whether a point within a zone of reasonableness is a just and reasonable ROE for that utility. In particular, as noted, the courts have held that, to be just and reasonable, an ROE must be “commensurate” with the returns on investments in other enterprises having “corresponding risks.” By the same token, an ROE—even one within the zone of reasonableness—that is *not* commensurate with the returns on investments in other enterprises having “corresponding risks” will not be just and reasonable. Accordingly, we conclude that a utility’s relative risk profile should be the most critical consideration when identifying the “broad range of potentially lawful ROEs” that *Emera Maine* contemplates within the overall zone of reasonableness produced by the DCF when determining whether an existing ROE remains unjust and unreasonable.

25. The Commission historically has accounted for a utility’s risk profile in two ways. First, it has attempted to compare that utility to other utilities facing similar risks by establishing a proxy group of comparable risk companies. Thus, for example, the Commission has limited the composition of the proxy group to utilities with a credit rating similar to that of the utility in question.<sup>58</sup> Second, recognizing that, nevertheless, the particular circumstances facing a utility may differ from some or all of the proxy group companies, the Commission has adjusted the ROE within the zone of reasonableness derived from the proxy group, increasing the ROE for a riskier utility and

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11, 15 (D.C. Cir. 2002) (similar); *Tenn. Gas Pipeline Co. v. FERC*, 926 F.2d 1206, 1209 (D.C. Cir. 1991) (similar).

<sup>57</sup> *Emera Maine*, 854 F.3d at 23, 27.

<sup>58</sup> *See, e.g.*, Opinion No. 531, 147 FERC ¶ 61,234 at PP 106-108 (citing *Tallgrass Transmission, LLC*, 125 FERC ¶ 61,248, at 62,240 n.79 (2008)); *see also Petal Gas*, 496 F.3d at 699 (“[P]roxy group arrangements must be risk-appropriate . . . [t]hat principle is well-established.”).

decreasing it for one that is less risky. Thus, as the D.C. Circuit explained in *Emera Maine*, the Commission has in multiple instances set a utility's ROE at the midpoint of the upper half of the zone reasonableness after finding "that the utility at issue was riskier than the proxy group, meaning that the utility's costs fell somewhere above the midpoint of the zone of reasonableness."<sup>59</sup> The D.C. Circuit has approved this approach, noting that, when dealing with a relatively risky utility, "the midpoint of the upper half [of the zone of reasonableness] was 'an obvious place to begin'" the analysis of what constitutes a just and reasonable ROE.<sup>60</sup> Similarly, the Commission has also held that, where a utility's risks are significantly less than those of the proxy group companies, an ROE at the relevant measure of central tendency for the lower half of the zone of reasonableness represents a just and reasonable ROE.<sup>61</sup>

26. Those longstanding determinations will form the basis of the Commission's approach to evaluating whether an existing ROE may be found unjust and unreasonable under the first prong of FPA section 206. In particular, we conclude that the principal consideration for determining whether an existing ROE within the overall zone of reasonableness has become unjust and unreasonable is the risk profile of the utility or utilities for which the Commission is setting the ROE. This is consistent with the Commission's well-established policy on relative risk analysis, in which the presumptively just and reasonable ROE for an average-risk utility is the relevant measure of central tendency for the entire zone of reasonableness while the presumptively just and reasonable ROE for an above- or below-average risk utility is the relevant measure of central tendency for either the upper or lower half of the zone of reasonableness, respectively. Following that approach, logic dictates, and we conclude, that it typically would be unjust and unreasonable for an average-risk utility to receive an ROE that is closer to the ROE that would be just and reasonable for a utility of above- or below-average risk.

27. With these conclusions in mind, we find that, for an average risk utility, the "broad range of potentially lawful ROEs" that the D.C. Circuit contemplated in *Emera Maine* should correspond to those points that are closer to the ROE that the Commission would set for that utility than to the ROE for a utility of a different risk profile. As illustrated below in Figure 1, for a diverse group of average risk utilities, again such as NETOs, this range will constitute one quarter of the zone of reasonableness, centered on the midpoint. Every potential ROE within that range will be closer to the current just and reasonable

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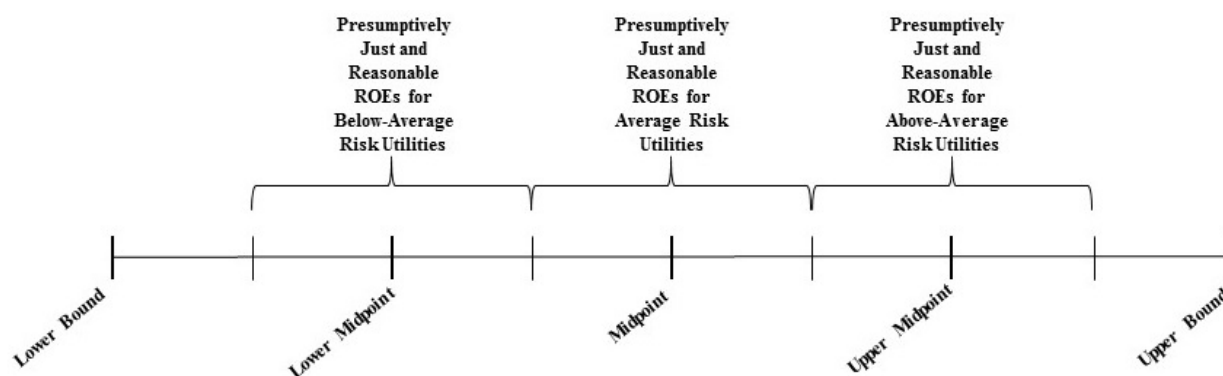
<sup>59</sup> *Emera Maine*, 854 F.3d at 29-30.

<sup>60</sup> *Id.* at 30 (quoting *Tenn. Gas*, 926 F.2d at 1213).

<sup>61</sup> See *Potomac-Appalachian Transmission Highline, LLC*, 158 FERC ¶ 61,050, at PP 270, 273 (2017).

ROE for an average-risk utility than the current just and reasonable ROE for a utility of a different risk profile.<sup>62</sup>

Figure 1: Zone of Reasonableness Quartiles



28. Pursuant to this framework, a finding that the existing ROE of an average risk utility falls within the applicable range of presumptively just and reasonable ROEs (in the case of an average risk utility, the middle quartile of the newly-calculated zone of reasonableness)<sup>63</sup> will support a holding that the existing ROE has not been shown to be unjust and unreasonable under the first prong of FPA section 206, at least absent additional evidence to the contrary. By the same token, a finding that the existing ROE of an average risk utility falls outside that range may support a holding that that the ROE has become unjust and unreasonable.

29. In evaluating whether an existing ROE has become unjust and unreasonable, the Commission may, in addition to applying the above framework, consider other indications of a change in capital market conditions since the existing ROE was established. For example, a significant decrease in financial indicators such as prime interest rates and U.S. Treasury and public utility bond yields, as well as changes in the returns on investments in other enterprises having corresponding risks, since the existing ROE was established may indicate that the existing ROE has become unjust and unreasonable. A utility's cost of equity is determined, at least in part, by comparison

<sup>62</sup> In cases where the ROE of a single utility is at issue, the quartiles will be centered on the median of the overall zone of reasonableness for a single utility of average risk and the medians of the lower and upper halves of the zone of reasonableness for single utilities of below and above average risk respectively.

<sup>63</sup> Similarly, for a utility of above-average risk, the zone of presumptively just and reasonable ROEs is the quartile centered on the upper midpoint/median; for a utility of below-average risk, the zone of presumptively just and reasonable ROEs is the quartile centered on the lower midpoint/median.

with other potential investments. As the return on those investments fluctuates, so too will the utility's cost of equity and, by extension, the ROE needed to service that cost of equity.

30. Lastly, it is important to explain how we intend to calculate the predicate, evidentiary zone of reasonableness that we will use to identify the range of presumptively just and reasonable ROEs. The Commission previously relied solely on the DCF model to produce the evidentiary zone of reasonableness. As explained below, we are concerned that relying on that methodology alone will not produce just and reasonable results. Therefore, we intend to expand the evidence on which we rely. Specifically, we intend to use the composite zone of reasonableness produced by the DCF, CAPM, and Expected Earnings models. Each of these three methodologies relies on a proxy group to determine a zone of reasonableness, and thus the top and bottom of the zone of reasonableness produced by each methodology can be averaged to determine a single composite zone of reasonableness. After determining the composite zone of reasonableness, we will then calculate the lower midpoint/median, midpoint/median, and upper midpoint/median of that zone. The presumptively just and reasonable ROEs for below-average-, average-, and above-average-risk utilities will then be the quartile of the zone corresponding to the lower midpoint/median, midpoint/median, and upper midpoint/median, respectively.

31. As discussed below, because we are adopting a new approach to meeting the Commission's burden under the first prong of the FPA section 206 inquiry, we will institute a paper hearing on how our approach should apply to the records assembled in the four complaints against NETOs' ROE.

### **B. Determining a Just and Reasonable ROE**

32. The Commission has relied upon the DCF methodology to determine a just and reasonable ROE for a public utility since the 1980s. However, as the D.C. Circuit has repeatedly observed, the Commission is not required to rely upon the DCF methodology alone or even at all.<sup>64</sup> For the reasons that follow, we find that, in light of current

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<sup>64</sup> *Tenn. Gas*, 926 F.2d at 1211 (explaining that the Commission is free to reject the DCF methodology, provided it adequately explains its reasons for doing so); *Elec. Consumers Res. Council v. FERC*, 747 F.2d 1511, 1514 n.6 (D.C. Cir. 1984) ("neither statutes nor decisions of this court require that the Commission utilize a particular formula or a combination of formulae to determine whether rates are just and reasonable"); *NEPCO*, 668 F.2d at 1345 ("FERC is not bound 'to the service of any single formula or combination of formulas.'" (quoting *FPC v. Natural Gas Pipeline Co.*, 315 U.S. at 586)); *see also Emera Maine*, 854 F.3d at 27 (noting that the Commission has authority to make "'pragmatic adjustments' to a utility's ROE" based on the facts of the particular case (quoting *FPC v. Nat. Gas Pipeline Co.*, 315 U.S. at 586)).  
(continued ...)

investor behavior and capital market conditions, relying on the DCF methodology alone will not produce a just and reasonable ROE. Instead, we propose to rely upon the results of all four financial models in the records for these proceedings: the DCF, CAPM, Expected Earnings, and Risk Premium models. We propose to give each of those four models equal weight, by calculating a single cost of equity estimate for each model and then averaging those four figures together to produce the just and reasonable ROE. To determine the cost of equity figure for average risk utilities using the DCF, CAPM, and Expected Earnings models, we propose to calculate the midpoint or median of the zone of reasonableness produced by each model, depending upon whether we are determining the ROE of a diverse group of utilities or a single utility. Those three midpoint/median figures would then be averaged with the single numerical figure produced by the Risk Premium model. We propose to use the midpoint/medians of the resulting lower and upper halves of the zone of reasonableness to determine ROEs for below or above average risk utilities, respectively.

### 1. Use of Multiple Financial Models

33. In *Hope*, the Supreme Court held that “the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.”<sup>65</sup> Thus, a key consideration in determining just and reasonable utility ROEs is determining what ROE a utility must offer in order to attract capital, i.e., induce investors to invest in the utility in light of its risk profile.<sup>66</sup> As the Commission stated in Opinion No. 414-B,<sup>67</sup> “the cost of common equity to a regulated enterprise depends upon what the market expects not upon precisely what is going to happen.”<sup>68</sup> Thus, in determining what ROE to award a utility we must look to how investors analyze and compare their investment opportunities.

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<sup>65</sup> *Hope*, 320 U.S. at 603. See also *CAPP v. FERC*, 254 F.3d 289, 293 (D.C. Cir. 2001) (“In order to attract capital, a utility must offer a risk-adjusted expected rate of return sufficient to attract investors.”).

<sup>66</sup> See *Bluefield*, 262 U.S. at 692-93 (discussing factors an investor considers in making investment decisions).

<sup>67</sup> *Transcontinental Gas Pipe Line Corp.*, Opinion No. 414-B, 85 FERC ¶ 61,323 (1998).

<sup>68</sup> *Id.* at 62,268. See also *Kern River Gas Transmission Co.*, Opinion No. 486-B, 126 FERC ¶ 61,034, at P 120 (2008).

34. The record in these proceedings includes four traditional methods investors may use to estimate the expected return from an investment in a company. These are the DCF, CAPM, Expected Earnings, and Risk Premium methodologies.<sup>69</sup> The DCF analysis provides a market-based approach based upon market-determined dividend yields and expected dividend growth. The CAPM provides a market-based approach determined by beta, a measure of the risk based upon the volatility of a company's stock price over time in comparison to the overall market, and the risk premium between the risk-free rate (generally, long-term U.S. Treasury bonds) and the market's return (generally, the return of the S&P 500 or another broad indicator for common stocks). The Expected Earnings methodology provides an accounting-based approach that uses investment analyst estimates of return (net earnings) on book value (the equity portion of a company's overall capital, excluding long-term debt). Finally, the Risk Premium methodology is a market-oriented methodology based on the premium investors require above the return they expect to earn on a bond investment to reflect the greater risk of a stock investment. In *New Regulatory Finance*, a leading academic text, Roger Morin explains that none of these methods "conclusively determines or estimates the expected return for an individual firm. Each methodology possesses its own way of examining investor behavior, its own premises, and its own set of simplifications of reality. Each method proceeds from different fundamental premises that cannot be validated empirically."<sup>70</sup>

35. Investors have varying preferences as to which of these or other methods they may use to inform their investment decisions. As Morin states, "Investors do not necessarily subscribe to any one method, nor does the stock price reflect the application of any one single method by the price-setting investor. There is no monopoly as to which method is

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<sup>69</sup> See, e.g., Roger A. Morin, *New Regulatory Finance* 428 (Public Utilities Reports, Inc. 2006) (Morin). These methods are described in the appendix to this order.

<sup>70</sup> Morin at 429. See also Docket Nos. EL13-33-002 and EL14-86-000, Ex. CAP-1 at 7 ("Models have been developed to ascertain the cost of common equity capital for a firm. Each model, however, has been developed using restrictive economic assumptions"); Docket Nos. EL13-33-002 and EL14-86-000, Ex. NET-1500 at 6 ("Different methodologies have been developed to estimate investors' expected and required return on capital, but all such methodologies are merely theoretical tools and generally produce a range of estimates based on different assumptions and inputs."); Docket No. EL16-64-002, Ex. EMC-1 at 46 ("No single model of investor expectations can capture, with perfect accuracy, all of the nuances that may affect investor decisions and expectations . . . The reason is that all models, by their nature, are simplifications of reality.").

used by investors.”<sup>71</sup> While some investors may give some weight to a DCF analysis, it is clear that other investors place greater weight on one or more of the other methods for estimating the expected returns from a utility investment, as well as taking other factors into account. Thus, cost of equity estimates based on all four of the methods described above are a reasonable measure of investor expectations, since they are among the information that investors rely upon when making investment decisions.<sup>72</sup>

36. In these circumstances, we believe that averaging the results of the three methods that produce zones of reasonableness—the DCF, CAPM, and Expected Earnings methodologies—will produce a composite zone of reasonableness that most accurately captures the cost of equity<sup>73</sup> that informs the ROE that the Commission must award to a utility so that the ROE can provide the return to investors necessary to satisfy their expectations. Additionally, the Risk Premium methodology should be included in the calculation of the average return of the composite zone of reasonableness for the same reason. Giving equal weight to all four of these methodologies in determining a utility’s ROE is supported by Morin:

In the absence of any hard evidence as to which method outdoes the other, all relevant evidence should be used and weighted equally, in order to minimize judgmental error, measurement error, and conceptual infirmities. A regulator should rely on the results of a variety of methods applied to a variety of comparable groups, and not on one particular method. There is no guarantee that a single DCF result is necessarily the ideal predictor of the stock price and of the cost of equity reflected in that price, just as there is no

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<sup>71</sup> Morin at 429. *See also* Docket No. EL16-64-002, Ex. NET-2800 at 15 (“Investment bankers, investors, and corporate finance professionals use models and tools beside the DCF model.”).

<sup>72</sup> We note that we will not consider the level of state ROEs when we are determining the composite zone of reasonableness, nor will we weight it equally with the financial models in establishing a new just and reasonable ROE. We will, however, consider evidence of state ROEs to the extent that the record adequately demonstrates that investors are using it to inform their investment decisions.

<sup>73</sup> A utility’s cost of equity is the return that the utility must provide its shareholders in order to induce them to invest their capital in that utility. A utility’s ROE is the return that the utility generates by using that invested capital in its operations.

guarantee that a single CAPM or Risk Premium result constitutes the perfect explanation of that stock price.<sup>74</sup>

37. Record testimony also supports using multiple methodologies to determine a utility's ROE. For example, Dr. Jonathan A. Lesser testified on behalf of EMCOS that "I believe that the use of multiple reasonable methodologies is appropriate for two reasons: (i) the required cost of equity is inherently unobservable, and (ii) no single model designed to estimate those investor expectations is likely to be 100 percent accurate in reflecting investor expectations."<sup>75</sup> Similarly, John D. Quackenbush testified on behalf of NETOs that "The Commission should not limit itself to using only the DCF model or restrict itself when applying judgment to ROE model results. Since state regulatory commissions, corporate finance professionals, and investors use multiple methods and exercise judgment when estimating the cost of equity, it is perfectly reasonable for the Commission to rely on multiple models and exercise judgment when setting the base ROE in this proceeding."<sup>76</sup>

38. Moreover, any methodology has the potential for errors or inaccuracies. Therefore, relying exclusively on any single methodology increases the risk that the Commission could authorize an unjust and unreasonable ROE. For example, in discussing "model risk," Mr. Quackenbush explained that "[a]rbitrarily and mechanically plugging data into a model, no matter how theoretically robust the model is, can result in outputs that do not reflect the real world."<sup>77</sup> There is significant evidence indicating that combining estimates from different models is more accurate than relying on a single model.<sup>78</sup> The Commission concludes that, by providing four different

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<sup>74</sup> Morin at 429.

<sup>75</sup> Docket No. EL16-64-002, Ex. EMC-1 at 45.

<sup>76</sup> Docket No. EL16-64-002, Ex. NET-2500 at 15.

<sup>77</sup> *Id.* at 20-21. *See also* Morin at 428 ("Reliance on any single method or preset formula is inappropriate when dealing with investor expectations because of possible measurement difficulties and vagaries in individual companies' market data."); *id.* at 429-30 ("If a regulatory commission relies on a single cost of equity estimate or on a single methodology, that commission greatly limits its flexibility and increases the risk of authorizing unreasonable rates of return. The results from one methodology . . . are likely to contain a high degree of measurement error and may be distorted by short-term aberrations.").

<sup>78</sup> *See, e.g., In re. Connect Am. Fund*, 28 FCC Rcd. 7123, 7147 (2013) ("As the cost of equity reflects the uncertain expectations of investors, there is potential for introducing significant errors into the estimates, and no single model can be counted on (*continued* ...)



approaches to estimating the cost of equity and determining ROEs, using these models together reduces the risk associated with relying on only one model; that is, the risk of misidentifying the just and reasonable ROE by relying on a flawed cost of equity estimate.

39. In the briefs directed by this order, the participants may address whether there should be any adjustments in the manner these models were implemented in Opinion Nos. 531, 531-A, and 531-B. In those opinions, the Commission emphasized that it was using the alternative methodologies only for the purpose of corroborating the decision to place the ROE above the midpoint of the zone of reasonableness,<sup>79</sup> and therefore the Commission explained that they were “sufficiently reliable—not to set the ROE itself—but rather to corroborate our decision.”<sup>80</sup> The fact the Commission is now proposing to give equal weight to the alternative models along with the DCF methodology raises the issue whether there should be any adjustments in how we implement them.

## 2. Difficulties with Sole Reliance on the DCF Methodology

40. Our decision to rely on multiple methodologies in these four complaint proceedings is based on our conclusion that the DCF methodology may no longer singularly reflect how investors make their decisions. We believe that, since we adopted the DCF methodology as our sole method for determining utility ROEs in the 1980s, investors have increasingly used a diverse set of data sources and models to inform their investment decisions.<sup>81</sup> Investors appear to base their decisions on numerous data points

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exclusively to provide a precise estimate of the cost of equity.”); *Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry’s Cost of Capital*, STB Ex Parte No. 664 (Sub-No. 1), 2009 WL 197991, \*11 (S.T.B. Jan. 23, 2009) (“As the Federal Reserve Board noted in its testimony in STB Ex Parte No. 664, academic studies had demonstrated that using multiple models will improve estimation techniques when each model provides new information. In addition, there is robust economic literature confirming that, in many cases, combining forecasts from different models is more accurate than relying on a single model.”) (citations omitted); Docket Nos. EL13-33-002 and EL14-86-000, Tr. 675:10-14 (Avera) (“All we can do is use these imperfect models to try to get a handle on what the underlying reality is, and since each model has its own failings and assumptions, there is some safety in numbers by looking at more models.”).

<sup>79</sup> See, e.g., Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 103, 112, and 129.

<sup>80</sup> *Id.* P 98.

<sup>81</sup> See, e.g., Docket No. EL16-64-002, Ex. NET-02700 at 26:5-8 (“recognizing that there is no failsafe method to estimate investors’ required cost of equity, approaches other (continued ...)”)

and models, including the DCF, CAPM, Risk Premium, and Expected Earnings methodologies.<sup>82</sup> As demonstrated in Figure 2 below, which shows the ROE results from the four models over the four test periods at issue in this proceeding,<sup>83</sup> these models do not correlate such that the DCF methodology captures the other methodologies. In fact, in some instances, their cost of equity estimates may move in opposite directions over time. Although we recognize the greater administrative burden on parties and the Commission to evaluate multiple models, we believe that the DCF methodology alone no longer captures how investors view utility returns because investors do not rely on the DCF alone and the other methods used by investors do not necessarily produce the same results as the DCF. Consequently, it is appropriate for our analysis to consider a combination of the DCF, CAPM, Risk Premium, and Expected Earnings approaches.

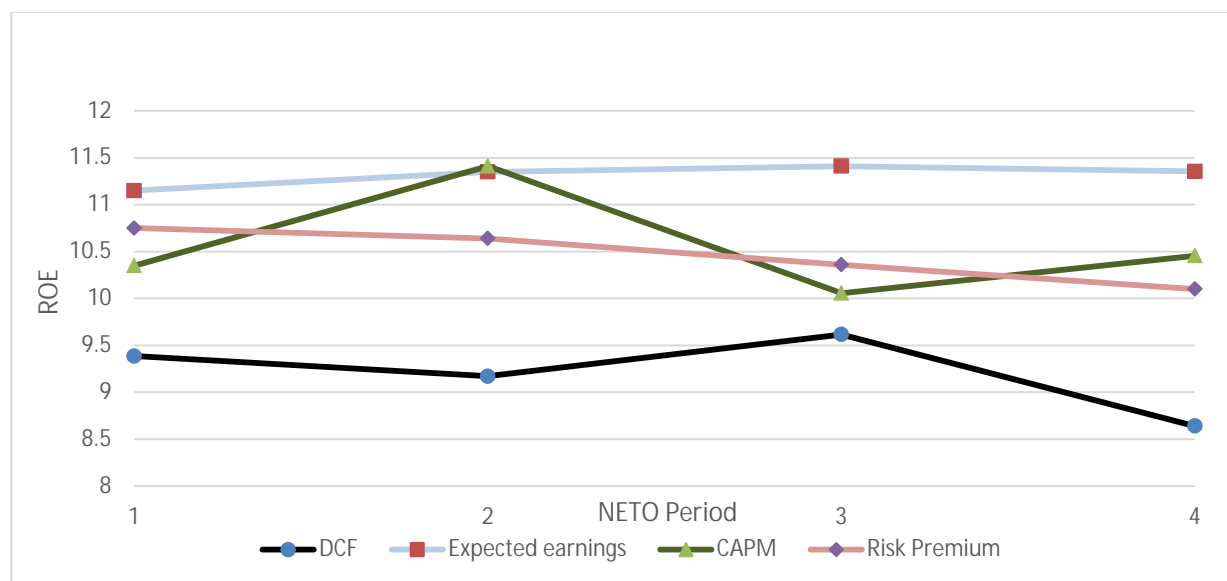
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than the DCF model have earned widespread acceptance with investment and finance professionals.”); Tr. 474:2-6 (Quackenbush) (“I think it’s always challenging to apply a financial model to a real world situation and come away feeling like you hundred percent got everything right. That’s why analysts use ranges and why they use multiple models.”); Docket No. EL11-66-001, Ex. NET-300 at 46 (“Investors clearly do not subscribe to any singular method, nor does the stock price reflect the application of any one single method by investors.”) (quoting David C. Parcell, *The Cost of Capital – A Practitioner’s Guide*, Society of Utility and Regulatory Financial Analysts (1997), Pt. 2 at 4)).

<sup>82</sup> See, e.g., Docket No. EL11-66-001, Ex. NET-300 at 64-65 (explaining the prevalence of the CAPM) (citing Robert F. Bruner, Kenneth M. Eades, Robert S. Harris, and Robert C. Higgins, *Best Practices in Estimating Cost of Capital: Survey and Synthesis*, Financial Practice and Education (Spring/Summer 1998)); Docket Nos. EL13-33-002 and EL14-86-000, Ex. NET-1300 at 27 (regarding common use of the risk premium approach); *id.* at 37-38 (discussing Value Line analyst projections of expected rates of return on common equity, the use of those projections in the expected earnings approach, and noting that “expected earned returns on invested capital provide a direct benchmark for investors’ opportunity costs.”).

<sup>83</sup> The midpoints are used for the DCF, CAPM, and Expected Earnings analyses; however, the Risk Premium model does not produce a range from which to calculate a midpoint, so the actual Risk Premium output is the numerical point plotted for that model in the figure. This chart reflects the ROE models removing high-end and low-end outliers, as discussed below.

Figure 2: ROE Results from ROE Models



41. During the periods used for the DCF analyses in these four complaint proceedings, capital market conditions differed significantly from those during the mid-1980s, when the Commission began relying exclusively on the DCF methodology to set ROEs, through the mid-2000s, when the Commission set NETOs' preexisting 11.14 percent ROE. For example, except for brief periods in 2002-2004, the 10-year U.S. Treasury bond never fell below 4.00 percent during that entire period until January 2008, and its lowest rate was 3.33 percent in June 2003.

42. In contrast, the 10-year U.S. Treasury bond rates, beginning with the recession of 2008/2009 and continuing through the periods at issue in these proceedings, are the lowest since the early 1960s.<sup>84</sup> In December 2008, the 10-year U.S. Treasury bond rate fell below 3.00 percent for the first time since June 1958.<sup>85</sup> During the six-month periods used for the DCF analyses in these four complaint proceedings, the 10-year U.S. Treasury bond rate was always below 3.00 percent. During the October 2012 to March 2013 period at issue in the First Complaint, the U.S. Treasury bond rate ranged from 1.65 to

<sup>84</sup> See Aswath Damodaran, *Equity Risk Premiums: Determinates, Estimation and Implications – The 2014 Edition* 81 (7<sup>th</sup> ed. 2014) (submitted as part of Workpapers of J. Randall Woolridge in Docket Nos. EL13-33-002 and EL14-86-000).

<sup>85</sup> See Docket Nos. EL13-33-002 and EL14-86-000, Exs. CAP-1 at 10 and CAP-4 at 1.

1.98 percent.<sup>86</sup> During the September 2013 to February 2014 period at issue in the Second Complaint, the 10-year U.S. Treasury bond rate ranged from 2.62 to 2.90 percent.<sup>87</sup> During the November 2014 to April 2015 period at issue in the Third Complaint, the 10-year U.S. Treasury bond rate ranged from 1.88 to 2.33 percent.<sup>88</sup> During the May to October 2017 period at issue in the Fourth Complaint, the 10-year U.S. Treasury bond rate ranged from 2.25 to 2.40 percent.<sup>89</sup>

43. In Opinion Nos. 531 and 531-B, the Commission relied on the low 10-year U.S. Treasury bond yields during the October 2012 to March 2013 period to find that capital market conditions were “anomalous” during that period.<sup>90</sup> The Commission found that, in those circumstances, the Commission had “less confidence” that the midpoint of the zone of reasonableness determined by the DCF analysis satisfied the *Hope* and *Bluefield* capital attraction standards.<sup>91</sup> The Commission then considered the alternative cost of equity models to corroborate the Commission’s determination to set NETOs’ ROE “at a point above the midpoint” of the DCF analysis’ zone of reasonableness, *i.e.*, the midpoint of the upper half of the zone.<sup>92</sup> However, the Commission emphasized that it was not departing from the use of the DCF methodology to determine the zone of

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<sup>86</sup> During this six-month period, the average 10-year U.S. Treasury bond rate was 1.83 percent and the average 30-year U.S. Treasury bond rate was 2.85 percent. *See* Docket No. EL16-64-002, Table NET-17.

<sup>87</sup> During this six-month period, the average 10-year U.S. Treasury bond rate was 2.77 percent and the average 30-year U.S. Treasury bond rate was 3.77 percent. *See* Docket Nos. EL13-33-002 and EL14-86-000, Ex. NET-1500 at 15.

<sup>88</sup> During this six-month period, the average 10-year U.S. Treasury bond rate was 2.06 percent and the average 30-year U.S. Treasury bond rate was 2.69 percent. *See* Docket Nos. EL13-33-002 and EL14-86-000, Ex. NET-1712 at 123.

<sup>89</sup> During this six month period, the average 10-year U.S. Treasury bond rate was 2.26 percent and the average 30-year U.S. Treasury bond rate was 2.85 percent. *See* Docket No. EL16-64-002, Ex. NET-2900 at 12.

<sup>90</sup> Opinion No. 531, 147 FERC ¶ 61,234 at P 145 n.285; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 49-50.

<sup>91</sup> Opinion No. 531-B, 150 FERC ¶ 61,165 at P 49; Opinion No. 531, 147 FERC ¶ 61,234 at PP 146-149.

<sup>92</sup> Opinion No. 531, 147 FERC ¶ 61,234 at P 146.

reasonableness.<sup>93</sup> At the hearings on the Second, Third, and Fourth Complaints, the participants devoted a substantial portion of their evidentiary presentations to debating whether the continuing low-interest rate capital market conditions should be considered “anomalous” and whether those conditions distort the results of a DCF analysis.<sup>94</sup>

44. Those issues are largely irrelevant under the approach to determining just and reasonable ROEs that we are proposing in this order. Under this approach, we are averaging the cost of equity results produced by the DCF model and the other three models, using the midpoint/medians of the models that produce zones of reasonableness, to get one average figure for the cost of equity. We are not making an adjustment above the midpoint/median as we did in Opinion No. 531. There is thus no need to find that low-interest rate capital market conditions distort the results of a DCF analysis so as to justify adjusting the ROE for average risk utilities above the midpoint. To the contrary, our primary reason for proposing to average the results of a DCF analysis with the results of the CAPM, Expected Earnings, and Risk Premium analyses is that *investors use those models*, in addition to the DCF methodology, to inform their investment decisions. Under this approach, whether a change in the capital market conditions is anomalous or persistent is of less importance, because relying on multiple financial models makes it more likely that our decision will accurately reflect how investors are making their investment decisions. As discussed above, a key consideration in determining just and reasonable utility ROEs is determining what ROE a utility must offer in order to attract capital, *i.e.*, induce investors to invest in the utility in light of its risk profile. For this purpose, we must look to the methods investors use to analyze and compare their investment opportunities in determining what ROE to award a utility consistent with the *Hope* and *Bluefield* capital attraction standards, and those methods include methods other than the DCF methodology.

45. We find further support for our proposed use of additional financial models in determining a utility’s ROE based on our stated concerns that the DCF methodology alone may not capture how investors evaluate utility returns and identify a utility’s relative risk profile. The underlying premise of the DCF methodology is that an investment in common stock is worth the value of the infinite stream of dividends discounted at a market rate commensurate with the investment’s risk. Under this premise, increases in a company’s actual earnings or projected growth in earnings would ordinarily be required to justify an increase in the company’s stock price. Moreover, there is no evidence that investments in the utility sector have become less risky during these periods. However, it appears that during the periods at issue in these complaint

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<sup>93</sup> *Id.*

<sup>94</sup> *See, e.g.*, Docket No. EL16-64-002, Exs. NET-2200 at 28-39, NET-2800 at 9-31, EMC-1 at 79-97, EMC-28 at 8-20, and EMC-32 at 14-36.

proceedings, average utility stock prices have increased by more than would be justified by any increase in actual utility earnings or projected growth in earnings. From October 1, 2012 through December 1, 2017, the Dow Jones Utility Average increased from about 450 to 762.59, an increase of almost 70 percent.<sup>95</sup> However, utility earnings did not increase by nearly the same amount, as demonstrated in Figure 3 below, which shows the substantial increase in utilities' price to earnings (PE) ratio during the same period.<sup>96</sup> Moreover, average IBES three to five year growth projections appear not to have increased during that period.<sup>97</sup> Thus, there has not been an increase in either current or projected utility earnings that would justify the substantial increase in utility stock prices.

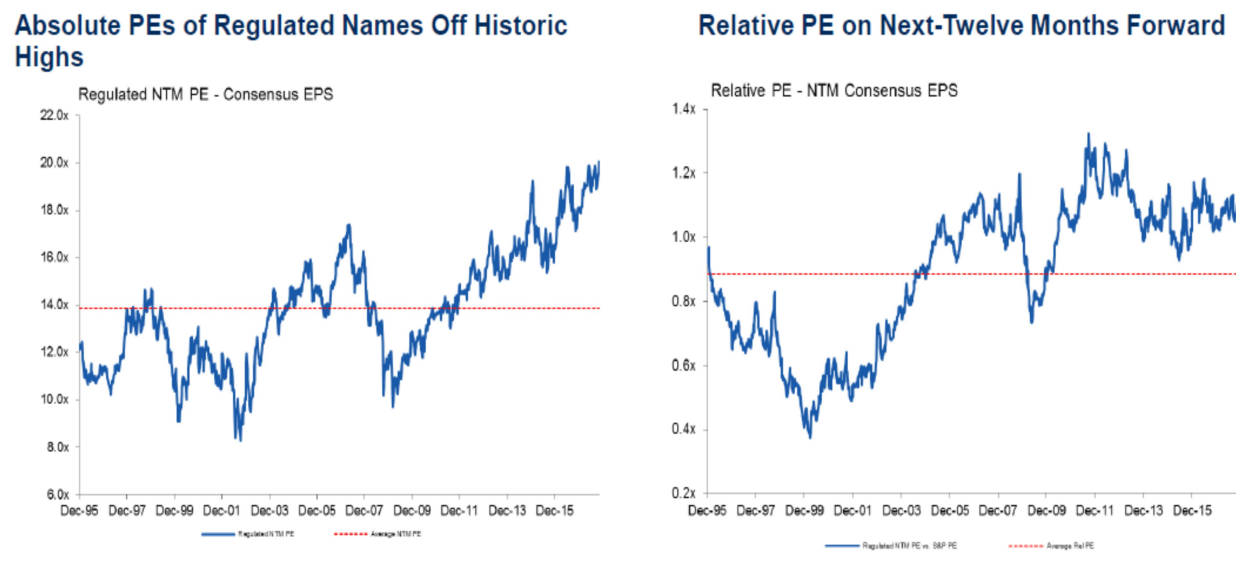
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<sup>95</sup> See Docket No. EL16-64-002, Ex. CAP-65.

<sup>96</sup> See Figure 3, Evercore ISI chart, dated November 15, 2017, entitled "Absolute PEs of Regulated Names off Historic Highs." That chart shows a generally upward trend of price to equity ratios from 2008 through November 2017, with those ratios rising above their 14.0x historic average in 2011, and continuing to rise to close to 20.0x by November 2017. Moreover, the Relative Forward PE chart (vs. the S&P 500) has ranged from its all-time peak of approximately 1.25x in January 2015, well above its 20-year low of approximately 0.40x in late 1999 at the end of the dot.com bubble. Finally, the Relative PE chart demonstrates the relationship between utility and general market PEs has varied considerably over time. This extreme PE volatility is inconsistent with DCF theory.

<sup>97</sup> The average IBES three to five year growth projections for the four pending complaints, including any potential proxy group companies proposed by any party, are fairly similar at 5.05 percent, 5.28 percent, 5.44 percent, and 5.26 percent, respectively.

Figure 3: Regulated Utilities PE Chart



46. The fact that utility stock prices appear to have performed in a manner inconsistent with the theory underlying the DCF methodology during the periods at issue in these four complaint proceedings is an example of what NETOs have described as “model risk” — the risk that in some circumstances a model will produce results that do not reflect real world experience.<sup>98</sup> It appears that, for whatever the reason, investors during this period have seen greater value in utility stocks than the DCF methodology would predict. This suggests that the ROE estimated by that methodology may be correspondingly inaccurate.

47. We are also generally concerned with the low number of current IBES three to five-year earnings growth projections available for use in a two-step DCF analysis. The Commission has based the short-term growth projection in the two-step DCF analysis on IBES three to five year earnings growth projections, because those growth projections represent the consensus projection of a number of investment analysts.<sup>99</sup> For example,

<sup>98</sup> See, e.g., Docket No. EL16-64-002, Ex. NET-2500 at 20; Docket Nos. EL13-33-002 and EL14-86-000, Ex. NET-1600 at 23 (“Like all valuation models, the DCF model is subject to ‘model risk’ . . . ‘Model risk’ is the risk that a model or algorithm used to predict values in real-world situations will fail to predict or represent the real phenomenon that is being modeled . . . there has been increasing recognition that the concept applies very broadly to models.”).

<sup>99</sup> Opinion No. 414-B, 85 FERC ¶ 61,323 at 62,268-9. *Northwest Pipeline Corp.* 87 FERC ¶ 61,266, at 62,058-9 (1999) (*Northwest*). *Composition of Proxy Groups for Determining Gas and Oil Pipeline Return on Equity*, 123 FERC ¶ 61,048, at PP 75-76 (2008).

the Commission's 1999 decision in *Northwest* found that the IBES data "reflects an average of *numerous* projections of short-term growth of the proxy companies."<sup>100</sup> In that same decision, the Commission rejected the use of Value Line growth projections, because those projections are made by a single analyst.<sup>101</sup> Although IBES growth projections represented a consensus in the past, the record indicates that they do not reflect as robust a consensus, or perhaps any consensus, now. The majority of investment analysts that make and publish quarterly and annual earnings estimates no longer make and publish three-to-five year short-term projections of earnings growth. Indeed, the record in the Third Complaint proceeding indicates that in recent years the IBES data for many proxy companies have reflected only one to three analyst short-term growth projections.<sup>102</sup>

48. The reduced number of current IBES growth projections raises the question of whether the IBES growth rates reflect a consensus among investors. Further, the reduced number of short-term growth projections means that a significant change in a single analyst's growth projection for a particular proxy company can have a major effect on the DCF analysis result for that company. For example, the correction, described above in

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<sup>100</sup> *Northwest*, 87 FERC at 62,059 (emphasis added).

<sup>101</sup> *Id.*

<sup>102</sup> Dr. J. Randall Woolridge explained that Reuters publishes the number of analysts contributing to each IBES short-term growth projection that it publishes and eliminates any analyst estimates that are more than six months old. *See* Docket Nos. EL13-33-002 and EL14-86-000, Ex. CAP-1 at 27-28. Dr. Woolridge's testimony included an exhibit showing the number of analysts providing short-term growth projections within the six months preceding November 30, 2014 for each of his 29 potential proxy companies. *See* Docket Nos. EL13-33-002 and EL14-86-000, Ex. CAP-6 at 4. The average number of analyst growth projections for each company was only slightly above two. There were three or fewer analyst growth projections for 23 of his 29 proxy companies, and only one proxy company for which there were more than four analyst growth projections. In addition, it appears that in some cases Thomson Reuters may extrapolate a percentage short-term growth projection from an analyst's estimates of the company's dollar earnings per share for different time periods, despite the fact the analyst did not actually make a percentage growth projection. *See* Docket Nos. EL13-33-002 and EL14-86-000, Ex. CAP-1 at 56. There is a risk that such extrapolations may be inaccurate. Dr. Woolridge provided an example involving Portland General Electric Company (Portland General), where an analyst's dollar earnings per share estimate for a past period reflected a one-time charge against earnings that would not properly be considered in projecting percentage growth in earnings for future periods. *See* Docket Nos. EL13-33-002 and EL14-86-000, Ex. CAP-11 at 2.



footnote 103, of the error in the growth projection of one of the four analysts reflected in the consensus growth projection for Portland General reduced the overall Reuters consensus projected short-term percentage growth in earnings for Portland General from 10.96 percent to 7.80 percent. Accordingly, the decreased number of short-term growth projections necessary to perform a DCF analysis of the proxy companies reduces our confidence in the results of that analysis and its suitability as the sole basis for our ROE determinations. However, because at least some investors continue to use the DCF model, we find it reasonable to give that model some weight, along with other models used by investors, in the overall approach to determining ROE proposed in this order.

### 3. Proxy Groups to be used for DCF, CAPM, and Expected Earnings Analyses

49. As described above, three of the four methodologies that we discussed above for determining the cost of equity use proxy groups to determine a range of reasonable returns. These include the DCF, CAPM, and Expected Earnings analyses. In selecting these proxy groups, the Commission intends to continue to use the same screens for developing a proxy group as the Commission has used in recent cases, including Opinion Nos. 531<sup>103</sup> and 551.<sup>104</sup> These screens are: (1) the use of a national group of companies considered electric utilities by Value Line;<sup>105</sup> (2) the inclusion of companies with credit ratings no more than one notch above or below the utility or utilities whose ROE is at issue;<sup>106</sup> (3) the inclusion of companies that pay dividends and have neither made nor announced a dividend cut during the six month study period;<sup>107</sup> (4) the inclusion of companies with no merger activity during the six-month study period that is significant enough to distort the study inputs;<sup>108</sup> and (5) companies whose ROE results pass threshold tests of economic logic, including both a low-end outlier test and a high-end outlier test, as discussed below.

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<sup>103</sup> 147 FERC ¶ 61,234 at P 97.

<sup>104</sup> 156 FERC ¶ 61,234 at P 20.

<sup>105</sup> Opinion No. 531, 147 FERC ¶ 61,234 at PP 96 and 100-102.

<sup>106</sup> The Commission requires use of both Standard and Poor's corporate credit ratings and Moody's issuer ratings when both are available. Opinion No. 531, 147 FERC ¶ 61,234 at P 107.

<sup>107</sup> *Id.* P 112.

<sup>108</sup> *Id.* P 114; Opinion No. 551, 156 FERC ¶ 61,234 at PP 37-43.

50. The first four screens listed above evaluate particular characteristics of the companies in question that do not vary depending upon the results of the DCF, CAPM, or Expected Earnings analyses. Accordingly, those screens may be used to develop a single group of proxy companies eligible for inclusion in the proxy group to be used for the purposes of DCF, CAPM, and Expected Earnings analyses, subject to the availability of data such as three-to-five year growth rates, betas, and earnings estimates, respectively. However, application of the last screen—whether the company’s cost of equity estimate passes threshold tests of economic logic—depends upon the cost of equity estimate each of the three models produces. Thus, in determining the zone of reasonableness produced by each of these models, the low-end and high-end outlier tests must be applied separately to each model.

51. Under the low-end outlier test, the Commission excludes from the proxy group companies whose ROE fails to exceed the average 10-year bond yield by approximately 100 basis points, taking into account any natural break between the cost of equity estimates of the companies excluded from the proxy group and the lowest cost of equity estimate of the companies included in the proxy group.<sup>109</sup> The Commission excludes these low-end outliers on the ground that investors generally cannot be expected to purchase a common stock if debt, which has less risk than a common stock, yields essentially the same expected return.<sup>110</sup> The Commission will continue to use this test for purposes of the CAPM and Expected Earnings analyses as well as the DCF analysis.

52. The Commission found the high-end outlier issue to be moot in Opinion No. 531, because the two-step DCF methodology adopted in that case includes a projection of long-term growth for each company equal to GDP. As a result, no proxy company had a composite growth rate in excess of 7.66 percent or an ROE in excess of 11.74 percent. The Commission found that those percentages were well within any high-end outlier test the Commission had previously applied in utility rate cases.<sup>111</sup> However, neither the

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<sup>109</sup> Opinion No. 531, 147 FERC ¶ 61,234 at P 123.

<sup>110</sup> *S. Cal. Edison Co.*, 92 FERC ¶ 61,070, at 61,266 (2000).

<sup>111</sup> Opinion No. 531, 147 FERC ¶ 61,234 at P 118.

CAPM nor Expected Earnings analyses include a long-term growth projection based on GDP that would normalize the ROEs produced by the model, similar to that used in the two-step DCF methodology. Moreover, the Commission recognizes that in unusual circumstances the two-step DCF methodology may produce unsustainably high results for a particular proxy company. Accordingly, given these facts and our decision to give the same weight to the CAPM and Expected Earnings analyses as to the DCF analysis, we find that a high-end outlier test should be applied to the results of each of these three methods.

53. The Commission proposes to treat as high-end outliers any proxy company whose cost of equity estimated under the model in question is more than 150 percent of the median result of all of the potential proxy group members in that model before any high or low-end outlier test is applied, subject to a “natural break” analysis similar to the approach the Commission uses for low-end DCF analysis results. This test should identify those companies whose cost of equity under the model in question is so far above the cost of equity of a typical proxy company as to suggest that it is the result of atypical circumstances not representative of the risk profile of a more normal utility.

54. To illustrate how this high-end outlier test would be applied, in the First Complaint, this test would exclude one company from the proxy group used for the Expected Earnings analysis. The median ROE under that methodology of all the companies eligible for inclusion in the proxy group after applying the first four screens described above is 10.2 percent. One hundred fifty percent of 10.2 percent is 15.3 percent. Dominion Resources Inc.’s (Dominion) cost of equity under the Expected Earnings analysis is 16.1 percent, and therefore this test would exclude Dominion in the determination of the Expected Earnings zone of reasonableness for the First Complaint. The next five highest Expected Earnings ROEs in that proceeding are 14.2 percent (Wisconsin Energy Corp.), 13.4 percent (CMS Energy Corp.), 12.9 percent (NextEra Energy, Inc.), 12.8 percent (Southern Company), and 12.3 percent (CenterPoint Energy, Inc.). Thus, there is a 190 basis point break between Wisconsin Energy Corp.’s 14.2 percent ROE and Dominion’s 16.1 percent, which is over twice the next highest break of 80 basis points. In the First Complaint, this high-end outlier test does not eliminate any company from the proxy groups used in the DCF or CAPM analyses. The elimination of such outliers is particularly important where the Commission uses the midpoint of the zone of reasonableness because a single outlier can dramatically affect the resulting ROE.

### **C. Preliminary Results of Applying Proposed Approach to the First Complaint**

55. Having described, above, our proposed approaches to determining whether (1) an existing ROE is unjust and unreasonable under the first prong of FPA section 206 and (2) if so, what the replacement ROE should be under the second prong of FPA section 206, we now explain how those approaches would apply in the First Complaint. This description represents the Commission’s preliminary determinations as to how we should

resolve the issues remanded by the D.C. Circuit in *Emera Maine*. However, as described in the next section, we are directing participants to file briefs regarding our proposed approaches to the FPA section 206 inquiry and how they should apply in the First Complaint and the three subsequent complaints.

56. Under our proposed framework for determining whether NETOs' preexisting 11.14 percent ROE is unjust and unreasonable under the first prong of FPA section 206, we must first determine what a composite zone of reasonableness would be. For this purpose, we find that the DCF zone of reasonableness, as determined in Opinion No. 531 based on financial data from the period October 2012 through March 2013, is 7.03 percent to 11.74 percent.<sup>112</sup> Similarly, the CAPM zone of reasonableness as determined in Opinion No. 531 is 7.4 percent to 13.30 percent.<sup>113</sup> With the adjustment discussed in the preceding section, the Expected Earnings approach's zone of reasonableness is 8.10 percent to 14.20 percent. Averaging these results, we determine that the composite zone of reasonableness is 7.51 percent to 13.08 percent. The top of this new composite zone of reasonableness would also determine the cap for the total ROE, *i.e.*, the base ROE plus any ROE incentives.

57. It is undisputed that NETOs are of average risk. Accordingly, the range of presumptively just and reasonable ROEs for NETOs is the middle quartile of the composite zone of reasonableness.<sup>114</sup> As discussed above, this represents the "broad range of potentially lawful ROEs" for NETOs that the D.C. Circuit contemplated in *Emera Maine* for purposes of determining whether an existing ROE is unjust and unreasonable under the first prong of FPA section 206. Here, that range specifically corresponds to the one quarter of the overall zone of reasonableness centered around the 10.3 percent midpoint of the zone of reasonableness. That quarter of the 7.51 percent to 13.08 percent zone of reasonableness is 9.60 percent to 10.99 percent. NETOs' preexisting 11.14 percent ROE is outside this range of potentially lawful ROEs; it is closer to the current just and reasonable ROE for a utility of above average risk than for utilities of average risk such as NETOs. This supports a finding that an 11.14 percent

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<sup>112</sup> *Id.* PP 9, 143.

<sup>113</sup> *Id.* P 147.

<sup>114</sup> NETOs being a diverse group of average risk utilities, the relevant central tendency is the midpoint. *See supra* n.45.

ROE is unjust and unreasonable for average risk utilities, such as NETOs. If any total ROEs—i.e., base ROE plus incentive ROE adders—exceed 13.08 percent, we would find these ROEs unjust and unreasonable as well.

58. Moreover, a finding that NETOs' preexisting 11.14 ROE has become unjust and unreasonable is buttressed by the substantial change in capital market conditions since Opinion No. 489 established that ROE. The 11.14 percent ROE was based on a DCF analysis using financial data from July to December 2004, with an adjustment to reflect an increase in average 10-year U.S. Treasury bond rates from that period to March to August 2006. During the March to August 2006 period, average utility bond yields ranged from 5.99 to 6.39 percent. By contrast, during the October 2012 to March 2013 period at issue in the First Complaint, utility bond yields ranged from 3.95 to 4.29 percent. The substantial reduction in utility bond yields since NETOs' preexisting 11.14 ROE was established buttresses a finding that capital market conditions have so changed as to render that ROE unjust and unreasonable. Based on these facts, we would reaffirm our holding in Opinion No. 531 that NETOs' preexisting ROE is unjust and unreasonable.

59. We thus turn to selecting a replacement just and reasonable ROE for NETOs. Under the approach outlined above, to select a replacement just and reasonable ROE we average the central tendencies of the zones of reasonableness produced by the DCF, CAPM, and Expected Earnings analyses together with the estimated cost of equity produced by the Risk Premium method, with each figure being given equal weight. Accordingly, we average the 9.39 percent midpoint of the DCF analysis, the 10.35 percent midpoint of the CAPM analysis, the 11.15 percent midpoint of the Expected Earnings analysis, and the 10.75 percent result of the Risk Premium analysis<sup>115</sup> to arrive at a preliminary 10.41 percent just and reasonable ROE for NETOs, exclusive of incentives. Further, we would cap any preexisting incentive-based total ROE above 13.08 percent at 13.08 percent.

60. If the Commission adopts this finding in its order following the briefing directed by this order, the Commission will exercise its "broad remedial authority" to correct its legal error in order to make the 10.41 percent ROE, exclusive of incentives, effective as

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<sup>115</sup> *Id.* (NETOs' Risk Premium analysis indicated that NETOs' cost of equity is between 10.7 percent and 10.8 percent; therefore we use the 10.75 percent midpoint of that range).

of the October 16, 2014 date of Opinion No. 531-A, and the Commission will order refunds of amounts collected in excess of 10.41 percent pursuant to the 10.57 percent ROE established by that opinion.<sup>116</sup> Accordingly, the issue to be addressed in the Second Complaint is whether the ROE established on remand in the First Complaint remained just and reasonable based on financial data for the six-month period September 2013 through February 2014 addressed by the evidence presented by the participants in the Second Complaint. Similarly, the Third and Fourth Complaints should address whether whatever ROE is in effect as a result of the immediately preceding complaint proceeding continues to be just and reasonable.

#### **D. Briefing**

61. As discussed above, we are directing the participants to these proceedings to submit briefs regarding the proposed approaches to the FPA section 206 inquiry and how to apply them to the First, Second, Third, and Fourth Complaints. The participants should submit separate briefs regarding each of the complaints. In addition, the participants may supplement the record with additional written evidence as necessary to support the arguments advanced in their briefs.<sup>117</sup> However, to the extent participants submit additional financial data or evidence concerning economic conditions in any proceeding it must relate to periods before the conclusion of the hearings in the relevant complaint proceeding. Any additional evidence shall be submitted in the form of affidavits accompanying the relevant brief(s). Initial briefs shall be due 60 days from the date of this order. Responses to those initial briefs shall be due 30 days later. No answers or additional briefs will be permitted.

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<sup>116</sup> *ISO New England Inc.*, 161 FERC ¶ 61,031 at PP 24, 34.

<sup>117</sup> *See Consolidated Edison of N.Y., Inc. v. FERC*, 315 F.3d 316, 323 (D.C. Cir. 2003) (holding that the Commission may apply a new policy “retroactively to the parties in an ongoing adjudication, so long as the parties before the agency are given notice and an opportunity to offer evidence bearing on the new standard”) *Town of Norwood, Mass. v. FERC*, 80 F.3d 526, 535 (D.C. Cir. 1996) (holding that, “the Commission takes account of changes that occur between the ALJ’s decision and the Commission’s review of that decision . . . the Commission may not depart from the zone of reasonableness on the basis of the change without giving parties an opportunity to reopen the record” (citing *Union Elec. Co. v. FERC*, 890 F.2d 1193, 1201-04 (D.C. Cir. 1989))); *see also Clark-Cowlitz Joint Operating Agency v. FERC*, 826 F.2d 1074, 1081 (D.C. Cir. 1987) (*en banc*) (discussing factors that the D.C. Circuit considers when determining whether it would be inappropriate to apply new policy retrospectively).

Docket No. EL11-66-001, *et al.*

- 39 -

The Commission orders:

The participants are directed to submit supplemental briefs and additional written evidence, as discussed in the body of this order.

By the Commission. Commissioner Glick is not participating.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

## Appendix

The four traditional methods investors may use to estimate the expected return from an investment in a company.

### DCF Methodology

With simplifying assumptions, the formula for the DCF methodology reduces to:  $P = D/k-g$ , where “P” is the price of the common stock, “D” is the current dividend, “k” is the discount rate (or investors’ required rate of return), and “g” is the expected growth rate in dividends. For ratemaking purposes, the Commission rearranges the DCF formula to solve for “k”, the discount rate, which represents the rate of return that investors require to invest in a company’s common stock, and then multiplies the dividend yield by the expression  $(1+.5g)$  to account for the fact that dividends are paid on a quarterly basis. Multiplying the dividend yield by  $(1+.5g)$  increases the dividend yield by one half of the growth rate and produces what the Commission refers to as the “adjusted dividend yield.” The resulting formula is known as the constant growth DCF methodology and can be expressed as follows:  $k=D/P (1+.5g) + g$ . Under the Commission’s two-step DCF methodology, the input for the expected dividend growth rate, “g,” is calculated using both short-term and long-term growth projections.<sup>118</sup> Those two growth rate estimates are averaged, with the short-term growth rate estimate receiving two-thirds weighting and the long-term growth rate estimate receiving one-third weighting.<sup>119</sup>

### CAPM

Investors use CAPM analysis as a measure of the cost of equity relative to risk.<sup>120</sup> The CAPM methodology is based on the theory that the market-required rate of return for a security is equal to the risk-free rate, plus a risk premium associated with the specific security. Specifically, the CAPM methodology estimates the cost of equity by taking the “risk-free rate” and adding to it the “market-risk premium” multiplied by “beta.”<sup>121</sup> The risk-free rate is represented by a proxy, typically the yield on 30-year U.S. Treasury bonds.<sup>122</sup> Betas, which are published by several commercial sources, measure a specific

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<sup>118</sup> Opinion No. 531, 147 FERC ¶ 61,234 at PP 15-17, 36-40; Opinion No. 531-A, 149 FERC ¶ 61,032 at P 10.

<sup>119</sup> Opinion No. 531, 147 FERC ¶ 61,234 at PP 17, 39.

<sup>120</sup> *Id.* P 147.

<sup>121</sup> Morin at 150.

<sup>122</sup> *Id.* at 151.



stock's risk relative to the market. The market risk premium is calculated by subtracting the risk-free rate from the expected return. The expected return can be estimated either using a backward-looking approach, a forward-looking approach, or a survey of academics and investment professionals.<sup>123</sup> A CAPM analysis is backward-looking if the expected return is determined based on historical, realized returns.<sup>124</sup> A CAPM analysis is forward-looking if the expected return is based on a DCF analysis of a large segment of the market.<sup>125</sup> Thus, in a forward-looking CAPM analysis, the market risk premium is calculated by subtracting the risk-free rate from the result produced by the DCF analysis.<sup>126</sup>

### **Risk Premium**

The risk premium methodology, in which interest rates are also a direct input, is “based on the simple idea that since investors in stocks take greater risk than investors in bonds, the former expect to earn a return on a stock investment that reflects a ‘premium’ over and above the return they expect to earn on a bond investment.”<sup>127</sup> As the Commission found in Opinion No. 531, investors’ required risk premiums expand with low interest rates and shrink at higher interest rates. The link between interest rates and risk premiums provides a helpful indicator of how investors’ required rate of return have been impacted by the interest rate environment.

Multiple approaches have been advanced to determine the equity risk premium for a utility.<sup>128</sup> For example, a risk premium can be developed directly, by conducting a risk premium analysis for the company at issue, or indirectly by conducting a risk premium analysis for the market as a whole and then adjusting that result to reflect the risk of the company at issue.<sup>129</sup> Another approach for the utility context is to “examin[e] the risk premiums implied in the returns on equity allowed by regulatory commissions for utilities

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<sup>123</sup> *Id.* at 155-162.

<sup>124</sup> *Id.* at 155-156.

<sup>125</sup> *Id.* at 159-160.

<sup>126</sup> *See id.* at 150, 155.

<sup>127</sup> Opinion No. 531, 147 FERC ¶ 61,234 at P 147 (citing Morin at 108).

<sup>128</sup> *See generally* Morin at 107-130.

<sup>129</sup> *Id.* at 110.

over some past period relative to the contemporaneous level of the long-term U.S. Treasury bond yield.”<sup>130</sup>

### **Expected Earnings**

A comparable earnings analysis is a method of calculating the earnings an investor expects to receive on the book value of a particular stock. The analysis can be either backward looking using the company’s historical earnings on book value, as reflected on the company’s accounting statements, or forward-looking using estimates of earnings on book value, as reflected in analysts’ earnings forecasts for the company.<sup>131</sup> The latter approach is often referred to as an “Expected Earnings analysis.” The returns on book equity that investors expect to receive from a group of companies with risks comparable to those of a particular utility are relevant to determining that utility’s cost of equity, because those returns on book equity help investors determine the opportunity cost of investing in that particular utility instead of other companies of comparable risk.<sup>132</sup> Because investors rely on Expected Earnings analyses to help estimate the opportunity cost of investing in a particular utility, we find this type of analysis useful in determining a utility’s ROE.

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<sup>130</sup> *Id.* at 123.

<sup>131</sup> *See* Opinion No. 531-B, 150 FERC ¶ 61,165 at P 125.

<sup>132</sup> *Id.* P 128.

Document Content(s)

EL11-66-001.DOCX.....1-42