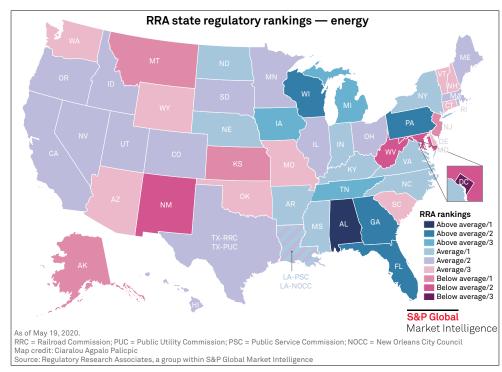
May 19, 2020 spglobal.com/marketintelligence

RRA Regulatory Focus State Regulatory Evaluations

Assessments of regulatory climates for energy utilities

Regulatory Research Associates, a group within S&P Global Market Intelligence, evaluates the regulatory climate for energy utilities in each of the jurisdictions within the 50 states and the District of Columbia, a total of 53 jurisdictions, on an ongoing basis. The evaluations are assigned from an investor perspective and indicate the relative regulatory risk associated with the ownership of securities issued by each jurisdiction's energy utilities.



Each evaluation is based upon consideration of the numerous factors affecting the regulatory process including gubernatorial involvement, legislation and court activity and may be adjusted as events occur that cause RRA to modify its view of the regulatory risk for a given jurisdiction.

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RRA State Regulatory Evaluations *

Above Average	Average	Below Average	
1	1	1	
Alabama	Arkansas	Alaska	
	Indiana	Kansas	
	Kentucky	Montana	
	Louisiana — PSC	New Jersey	
	Mississippi		
	Nebraska		
	New York		
	North Carolina		
	North Dakota		
	Virginia		
Above Average 2	Average 2	Below Average 2	
	0.1116	-	
Georgia	California	Maryland	
Florida	Colorado	New Mexico	
Pennsylvania	Hawaii	West Virginia	
Wisconsin	Idaho		
	Illinois		
	Louisiana—NOCC		
	Massachusetts		
	Minnesota		
	Nevada		
	Ohio		
	Oregon		
	Rhode Island		
	South Dakota		
	Texas—PUC		
	Texas—RRC		
	Utah		
Above Average 3	Average 3	Below Average 3	
lowa	Arizona	Dist, of Columbia	
Michigan	Connecticut		
Tennessee	Delaware		
	Maine		
	Missouri		
	New Hampshire		
	Oklahoma		
	South Carolina		
	Vermont		
	Washington		

As of May 19, 2020.

NOCC = New Orleans City Counsil; PSC = Public Service Commission; PUC = Public Utility Commission; RRC = Railroad Commission

*Within a given subcategory, states are listed in alphabetical order, not by relative ranking. Source: Regulatory Research Associates, a group within S&P Global Market Intelligence.



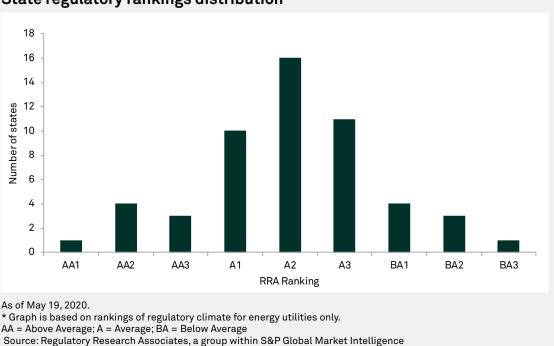
RRA also reviews evaluations as key rate case and other regulatory decisions are issued, when updating <u>Commission</u> <u>Profiles</u> and when publishing this quarterly comparative report. The issues considered are discussed in RRA Research Notes, Commission Profiles, Rate Case Final Reports and Topical Special Reports. RRA also considers information obtained from contacts with commission, company and government personnel in the course of its research. The final evaluation is an assessment of the probable level and quality of the earnings to be realized by the state's utilities as a result of regulatory, legislative and court actions.

An Above Average designation indicates that, in RRA's view, the regulatory climate in the jurisdiction is relatively more constructive than average, representing lower risk for investors that hold or are considering acquiring the securities issued by the utilities operating in that jurisdiction.

At the opposite end of the spectrum, a Below Average ranking would indicate a less constructive, or higher-risk, regulatory climate from an investor viewpoint.

A rating in the Average category would imply a relatively balanced approach on the part of the governor, the legislature, the courts and the commission when it comes to adopting policies that impact investor and consumer interests.

Within the three principal rating categories, the designations 1, 2 and 3 indicate relative position, with a 1 implying a more constructive relative ranking within the category, a 2 indicating a midrange ranking within the category and a 3 indicating a less constructive ranking within the category.



State regulatory rankings distribution*

RRA attempts to maintain a "normal distribution" of the rankings, with the majority of the states classified in one of the three Average categories. The remaining states are then split relatively evenly between the Above Average and Below Average classifications, as seen in the accompanying chart that depicts the current ranking distribution.

For a more in-depth discussion of the factors RRA reviews as part of its ratings process, see the Overview of RRA rankings process section that begins on <u>page 8</u>.



Rankings changes

Since the publication of the previous "State Regulatory Evaluations" <u>report</u>, which was released on March 25, 2020, RRA has made no rankings changes.

However, in conjunction with the release of the March review RRA made six rankings changes.

RRA raised the ranking of <u>Connecticut</u> regulation to Average/3 from Below Average/1. The ranking shift reflects modestly constructive ratemaking actions the Connecticut Public Utilities Regulatory Authority, or PURA, has taken in recent years, including a focus on grid modernization.

RRA also raised the ranking of <u>lowa</u> regulation to Above Average/3 from Average/1, as constructive measures stemming from the state's omnibus energy legislation enacted in 2018 have materialized in recent months.

In addition, RRA raised the ranking of <u>Louisiana</u> regulation to Average/1 from Average/2, recognizing the impact of the state's use of alternative regulation plans many of which contain earnings-sharing provisions and include other constructive provisions that address various utility costs and investments in a timely manner.

On the other hand, RRA lowered the ranking of <u>Maine</u> regulation to Average/3 from Average/2 due to recent restrictive developments related to mergers and rate case activity.

RRA also lowered the ranking of <u>Utah</u> regulation to Average/2 from Average/1. This was driven primarily by a recent restrictive Public Service Commission of Utah <u>decision</u> for Dominion Energy Inc. subsidiary Questar Gas Co., and in light of constructive developments in certain other jurisdictions that caused a shift in Utah's relative position within the RRA rankings framework.

RRA state regulatory evaluations					
State-by-state l	0 0	-	D	01.11	D. Him
State	Ranking	State	Ranking	State	Ranking
Alabama	Above Average/1	Louisiana—NOCC	Average/2	Ohio	Average/2
Alaska	Below Average/1	Louisiana—PSC	Average/1	Oklahoma	Average/3
Arizona	Average/3	Maine	Average/3	Oregon	Average/2
Arkansas	Average/1	Maryland	Below Average/2	Pennsylvania	Above Average/2
California	Average/2	Massachusetts	Average/2	Rhode Island	Average/2
Colorado	Average/2	Michigan	Above Average/3	South Carolina	Average/3
Connecticut	Average/3	Minnesota	Average/2	South Dakota	Average/2
Delaware	Average/3	Mississippi	Average/1	Tennessee	Above Average/3
District of Columbia	Below Average/2	Missouri	Average/3	Texas—PUC	Average/2
Florida	Above Average/2	Montana	Below Average/1	Texas—RRC	Average/2
Georgia	Above Average/2	Nebraska	Average/1	Utah	Average/2
Hawaii	Average/2	Nevada	Average/2	Vermont	Average/3
Idaho	Average/2	New Hampshire	Average/3	Virginia	Average/1
Illinois	Average/2	New Jersey	Below Average/1	Washington	Average/3
Indiana	Average/1	New Mexico	Below Average/2	West Virginia	Below Average/2
lowa	Abive Average/3	New York	Average/1	Wisconsin	Above Average/2
Kansas	Below Average/1	North Carolina	Average/1	Wyoming	Average/3
Kentucky	Average/1	North Dakota	Average/1		

RRA state regulatory evaluations

As of May 19, 2020.

NOCC = New Orleans City Council; PSC = Public Service Commission; PUC = Public Utility Commission;

RRC = Railroad Commission

Source: Regulatory Research Associates, a group within S&P Global Market Intelligence

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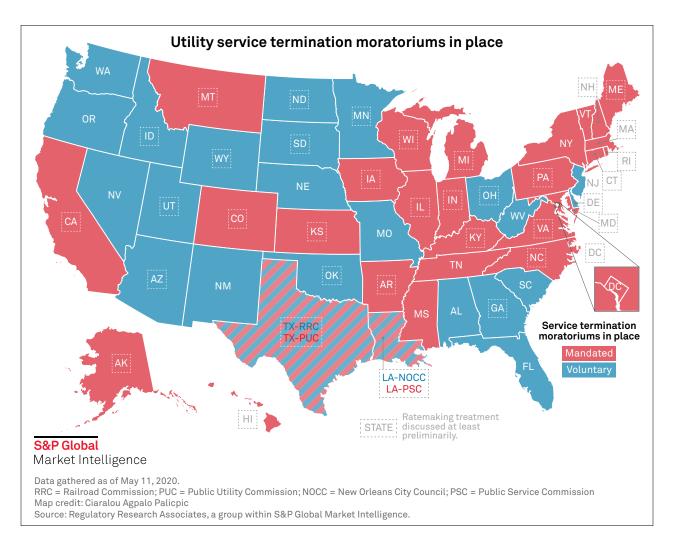
Finally, RRA lowered the ranking of <u>Virginia</u> regulation to Average/1 from Above Average/3. This was the second ranking reduction RRA made for Virginia in the prior 12 months. While RRA perceives an increase in the level of regulatory risk for the utilities operating in the state, the Virginia regulatory climate still remains somewhat more constructive than average from an investor viewpoint.

Issues to watch

Coronavirus/COVID 19

The coronavirus outbreak presents challenges for U.S. utilities on several fronts, including but not limited to, expected reductions in usage as businesses, schools and government buildings remain shuttered, lower revenues due to a higher anticipated occurrence of bad-debt/uncollectibles and increased operating costs associated with enhanced biohazard safety measures and maintaining sufficient staffing to ensure safety and reliability of utility service.

These challenges have the potential to significantly impact the financial performance of the investor-owned utilities, increasing the overall level of investor risk. <u>Mechanisms</u> are in place in several states that, all else being equal, could blunt the impact or allow the impacts to be addressed on a more expedited basis, and these mechanisms are already baked into RRA's rankings of those states.



While maintaining essential utility circumstances in these difficult times has been the primary focus for policymakers, as the crisis has dragged on, regulators have <u>begun</u> to consider methodologies to address COVID-19 related costs. As of May 11, regulators in 17 jurisdictions had authorized the utilities to track and defer COVID-19 related costs. Since then two other states, Virginia and Pennsylvania have <u>approved</u> deferrals on a limited basis. In 13 other states, proceedings are pending to discuss a workable framework to address COVID-19 costs and five states have indicated that the service suspension do not relieve customers of the obligation to pay for the service they have used.

RRA has posited that <u>securitization</u> may ultimately be a viable option for recovery of the deferred balances.

COVID-19 cost recovery provisions				
Deferral		Customer payment plan	Pending	
Alaska	Maryland	Colorado	Arizona	Missouri
Arkansas	Michigan	New Hampshire	Delaware	Montana
California	Minnesota	North Carolina	Indiana	North Dakota
Connecticut	Oklahoma	Ohio	Kansas	South Dakota
Dist. of Columbia	Pennsylvania	Rhode Island	Kentucky	Utah
Georgia ¹	Texas-PUC ²		Maine	Wisconsin
Hawaii	Texas-RRC		Masschusetts	
Idaho	Virginia			
Illinois	Wyoming			
lowa				
As of May 11, 2020. PUC=Public Utility (ies) Commission; RRC=Railroad Commission Deferral=Costs and/or lost revenues may be deferred for future recovery. Customer payment plan=Lost revenue associated with suspension moratorium to be recovered on a customer-specific basis over time. Pending=Proceeding under way/legislation pending to determine cost recovery ¹ Deferral approved for one utility for another the lost revenue associated with suspension moratorium would be recovered through existing rate plan. ² Costs and/or lost revenues may be deferred for future recovery for utilities; interim funding mechanism in place for retail electric providers. Source: Regulatory Research Associates, a group withinn S&P Global Market Intelligence.				

RRA has also observed that <u>fewer</u> companies are filing rate cases and the <u>schedules</u> in others have been delayed. Similarly, concerns regarding the spread of the virus and the need to address the broader economic impacts have disrupted <u>legislative</u> sessions across the U.S., slowing the process and creating additional uncertainty for the sector as a whole and in some states primaries and/or elections have also been delayed/postponed.

Elections

In addition to the U.S. Presidential election, the 2020 general <u>elections</u> will feature 19 utility commissioner and 11 gubernatorial elections. Changes in regulatory personnel that result from these elections could lead to policy shifts in the affected jurisdictions.

A total of four <u>commissioners</u> in three states where regulators are elected, are ineligible to run for reelection in November due to term limits — Arizona, Montana, where there are two, and New Mexico. Notably one Arizona commissioner who was seeking re-election has been <u>removed</u> from the ballot after issues with the authenticity of the signatures required to appear on the ballot were raised.

In Texas, Commissioner Ryan Sitton failed to win the Republican primary to retain his seat on the Railroad Commission of Texas. The winner, James Wright, will face the victor in a Democratic primary run off that is scheduled for July 20 between Chrysta Castaneda and Roberto Alonzo.



The chief executive of the jurisdiction appoints the utility commission members in nine of the 11 states where gubernatorial elections will be held. Nineteen commissioner terms in eight of those states will expire during the governor-elects' new terms and eight terms will expire within the first 12 months following the election.

States to watch

In addition to the changes discussed above, there are several states where ongoing issues bear close scrutiny.

In <u>Arizona</u>, a proceeding is ongoing in which the commission is considering an overhaul of the regulatory framework including the implementation of <u>retail competition</u> for generation and adoption of a 100% renewable portfolio standard, or RPS. While RRA does not take a view on whether the introduction of retail competition or the RPS is in and of itself positive or negative, experience shows that the transition process can be fraught with risk, and so developments in this proceeding bear watching.

In addition, a commission-mandated <u>rate case</u> is underway for Pinnacle West Capital Corp. subsidiary Arizona Public Service Co., while proceedings are also pending for <u>Southwest Gas Corp</u>. and Fortis Inc. subsidiary <u>Tucson Electric</u> <u>Power Co.</u>

In <u>California</u>, the team is continuing to monitor developments with respect to the <u>bankruptcy</u> proceedings involving Pacific Gas & Electric and its parent PG&E Corp., including the prospects for a state takeover or <u>break up</u> of the company. Meanwhile, issues with respect to the treatment of wildfire costs continue to await a final resolution.

Other jurisdictions that bear watching include the District of Columbia, where Exelon Corp. subsidiary Potomac Electric Power, or Pepco, filed its first ever multiyear rate <u>plan</u>. Intervenors to the case have <u>called</u> for the commission to reject the proposal and instead issue a decision based on a traditional test year filing. A final order is expected in late-2020.

RRA continues to monitor the ongoing proceedings in <u>Georgia</u> with respect to Southern Company subsidiary Georgia Power Co.'s Vogtle nuclear plant expansion project. The company filed its 22nd periodic monitoring report on the construction earlier this year, but as the commission's review has proceeded, the company has <u>announced</u> that it has reduced its workforce at the facility by 20% due to the COVID-19 outbreak.

In Maryland, RRA is monitoring the Maryland Public Service Commission's progress as it implements its new policy allowing the use of <u>multiyear rate plans</u> to mitigate regulatory lag. Energy storage pilot program <u>proceedings</u> are also ongoing, as is the commission' review of the proposed <u>acquisition</u> of Elkton Gas by Chesapeake Utilities Corp. Elkton Gas is currently owned by South Jersey Industries.

<u>Montana</u> also bears watching, as recent rate case decisions have produced <u>authorized</u> returns on equity that have trended toward nationwide averages; however, it is too soon to say whether this heralds the beginning of a sustained improvement in the regulatory climate. It is also noteworthy that three of the five commissioner seats will be up for election during the 2020 general election.

RRA continues to monitor the situation in <u>New York</u> with respect to the heightened politicization of certain energy regulatory matters in the state. During the summer of 2019, a political backlash ensued surrounding power outages in Consolidated Edison Inc. subsidiary Consolidated Edison Co. of New York's, or CECONY's, service area. Both Gov. Andrew Cuomo and local politicians ratcheted up the criticism of CECONY's reliability. The utility reached a deal, which New York Public Service Commission adopted in January 2020, specifying a well-below-industry-average 8.8% ROE as part of a three-year <u>electric</u> and <u>gas</u> rate plan.

Political fallout surrounding the utilities' self-imposed moratorium on new natural gas service is apparently creating some overhang for National Grid USA subsidiaries <u>Brooklyn Union Gas Co</u>. and <u>KeySpan Gas East Corp</u> Even though a settlement was reached in November 2019 that lifted the moratorium and called for the utilities to pay \$36 million to compensate customers hurt by the moratorium. In testimony filed in April 2020, the PSC staff recommended an 8.2% ROE for both companies, substantially below those adopted in the CECONY cases. Rate cases are also <u>pending</u>



for Iberdrola's four New York utility operating companies, and the staff has also proposed an 8.2% ROE for these companies. A settlement in those <u>cases</u> is expected to be filed in the near future.

Two recently completed rates cases before the <u>Public Utility Commission of Texas</u>, <u>one</u> for CenterPoint Energy Inc. subsidiary CenterPoint Energy Houston Electric LLC and the <u>other</u> for American Electric Power Co. Inc. subsidiary AEP Texas Inc., were particularly contentious, even though settlements were reached, due to the commission's request for testimony on and ultimate adoption of enhanced ring-fencing requirements. A proceeding is <u>pending</u> for Xcel subsidiary Southwestern Public Service where similar issues are being considered.

Recent State Regulatory Reviews

In recent months, RRA has issued State Regulatory Reviews affirming the rankings of several jurisdictions.

In a <u>review</u> released on April 29, 2020, RRA maintained the Above Average/3 ranking of <u>Michigan</u> regulation, finding that Michigan regulatory climate is generally constructive from an investor perspective and continues to support significant capital investments and timely recovery of these costs.

In a <u>review</u> of <u>Idaho</u> published on April 20, 2020, RRA noted that the regulatory climate remains relatively balanced from an investor viewpoint and maintained the Average/2 ranking of that jurisdiction.

In a <u>review</u> issued on March 10, 2020, RRA affirmed the Average/1 ranking of the <u>North Carolina</u> regulatory climate. In RRA's view, North Carolina is also generally balanced from an investor viewpoint, but is a bit more constructive than average.

In a <u>review</u> released on Jan. 6, 2020, RRA affirmed its Average/3 ranking of <u>South Carolina</u> regulation indicating that while generally balanced, the environment in the state is somewhat more restrictive than average from an investor viewpoint.

RRA state regulatory evaluations — energy* Above Above Above Below Below Below average/3 Average/2 average/3 average/1 average/2 Average/1 Average/3 average/1 average/2 Alabama Florida Iowa Arkansas California Arizona Alaska Maryland Dist. of Columbia Georgia Michigan Indiana Colorado Connecticut Kansas New Mexico Pennsylvania Tennessee Kentucky Hawaii Delaware Montana West Virginia Wisconsin Louisiana - PSC Idaho Maine New Jersey Illinois Mississippi Missouri Louisiana — NOCC Nebraska New Hampshire New York Massachusetts Oklahoma North Carolina Minnesota South Carolina North Dakota Vermont Nevada Virginia Ohio Washington Oregon Wyoming Rhode Island South Dakota Texas—PUC Texas—RRC Utah

For a complete listing of RRA's in-depth reports, see the <u>Energy Research Library</u>.

As of May 19, 2020.

NOCC = New Orleans City Council; PUC = Public Utility Commission; RRC = Railroad Commission *Within a given subcategory, states are listed in alphabetical order, not by relative ranking. Source: Regulatory Research Associates, a group within S&P Global Market Intelligence Please note that the State Regulatory Reviews are static versions of RRA's <u>Commission Profiles</u>, which are updated on an ongoing basis.

Overview of RRA rankings process

RRA maintains three principal rating categories, Above Average, Average and Below Average, with Above Average indicating a relatively more constructive, lower-risk regulatory environment from an investor viewpoint and Below Average indicating a less constructive, higher-risk regulatory climate. Within each principal rating categories, the numbers 1, 2 and 3 indicate relative position. The designation 1 indicates a stronger or more constructive rating from an investor viewpoint; 2, a midrange rating; and 3, a less constructive rating. Hence, if you were to assign numeric values to each of the nine resulting categories, with a "1" being the most constructive from an investor viewpoint and a "9" being the least constructive from an investor viewpoint, then Above Average/1 would be a "1" and Below Average/3 would be a "9."

Methodology

While numerical scores employed, the rankings are subjective and are intended to be comparative in nature. RRA endeavors to maintain an approximate normal distribution with an approximately equal number of rankings above and below the average.

The rankings are designed to reflect the interest of both equity and fixed-income investors across more than 30 individual metrics. The individual scores are assigned based on the covering analysts' subjective judgement. The scores are then aggregated to create a single score for each state, with certain categories weighted more heavily than others.

The states are then ranked from lowest to highest and distributed among the nine categories to create an approximate normal distribution. This distribution is then reviewed by the team as a whole, and individual state rankings may be adjusted based on the covering analysts' recommendations, subject to review by a designated panel of senior analysts.

The variables that RRA considers in determining each state's ranking are largely the broad issues addressed in our State Regulatory Reviews/Commission Profiles and those that arise in the context of rate cases and are discussed in RRA Rate Case Final Reports.

The rankings not only reflect the decisions rendered by the state regulatory commission, but also take into account the impact of the actions taken by the governor, the legislature, the courts and the consumer advocacy groups. The policies examined pertain largely to rate cases and the ratemaking process, but issues such as industry restructuring, corporate governance, treatment of proposed mergers and the ongoing energy transition are also considered.

Please note: In the charts within this report that show the rankings by category, the jurisdictions in each category are listed in alphabetical order rather than by relative position within the category.

The summaries below provide an overview of the variables RRA looks at, including a brief discussion of how each can impact the ranking of a given regulatory environment.

Governor/Mayor

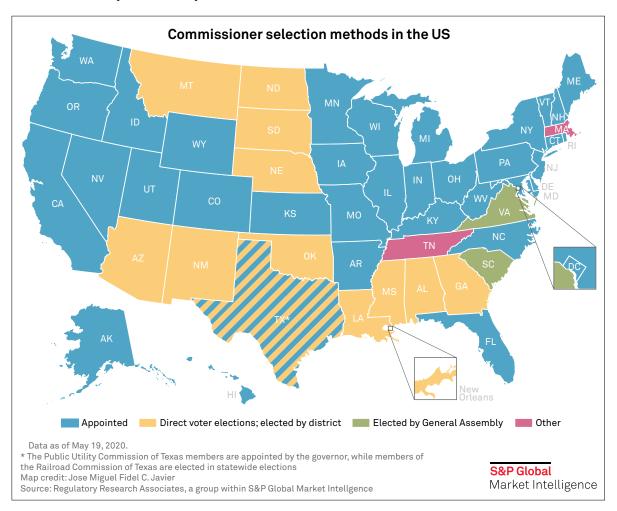
The impact the governor, or in the District of Columbia the mayor, may have depends largely on the individual; the issue of elected versus appointed commissioners is evaluated separately.

RRA takes no view on whether Republican governors or Democratic governors are more or less constructive. However, attributes of the governor or the gubernatorial election process that can move the needle here are: whether energy issues were a topic of debate in recent elections and what the tone/topic of the debate was, whether the governor seeks to involve himself or herself in the regulatory process, and what type of influence the governor is seeking to exert.



Commissioner selection process/membership

RRA looks at how commissioners are selected in each state. All else being equal, RRA attributes a greater level of investor risk to states in which commissioners are elected rather than appointed. Generally, energy regulatory issues are less politicized when they are not subject to debate in the context of an election.



Realistically, a commissioner candidate who indicates support for the utilities and their shareholders, or appears to be amenable to rate increases is not likely to be popular with the voting public. In addition, there might not be specific experience requirements to run for commissioner; so, a newly elected candidate may have a steeper learning curve with respect to utility regulatory and financial issues, which could make discerning what decisions that individual might make more difficult and could increase uncertainty.

However, there have been some notable instances in which energy issues played a key role in gubernatorial/senatorial elections in states where commissioners are appointed, with detrimental consequences for the utilities, e.g., Illinois, Florida and Maryland, all of which were downgraded by RRA at the time in order to reflect the increase risk associated with increased political scrutiny of the regulatory process and policies within the jurisdiction.

In addition, RRA looks at the commissioners themselves and their backgrounds. Experience in economics and finance and/or energy issues is generally seen as a positive sign. Previous employment by the commission or a consumer advocacy group is sometimes viewed as a negative indicator. In some instances, new commissioners have very little experience or exposure to utility issues, and in some respects, these individuals represent the highest level of risk,

simply because there is no way to foresee what they will do or how long it will take them to "get up to speed." Controversy or "scandal" surrounding an individual and/or the potential for a conflict of interest are also red flags.

Similarly, a high rate of turn-over or the tendency to allow vacancies to stand unfilled for a long period of time add to the level of regulatory risk in RRA's view.

For additional information concerning the selection process in each state and the make-up of the commissions, refer to the RRA Regulatory Focus Topical Special Report entitled <u>The Commissions</u>.

Commission staff/consumer interest

Most commissions have a staff that participates in rate proceedings. In some jurisdictions the staff has a responsibility to represent the consumer interest, and in others the staff's statutory role is less defined. In addition, there may or may not be: additional state-level organizations that are charged with representing the interests of a certain class or classes of customers, such as the Attorney General or the Consumer Advocate; private consortia or lobbying groups that represent certain customer groups; and/or large-volume commercial and industrial customers that intervene directly in rate cases.

Generally speaking, the greater the number of consumer intervenors, the greater the level of uncertainty for investors. The level of risk for investors also depends on the caliber and influence of the intervening parties and the level of contentiousness in the rate case process. Even though a commission may not adopt an extreme position taken by an intervenor, the inclusion of an extreme position in the record for the case widens the range of possible outcomes, reducing certainty and increasing the risk of a negative outcome for investors. RRA's opinion on these issues is largely based on past experience and observations.

Settlements

In most instances, the ability of the parties to reach agreement without having to go through a fully litigated proceeding is considered constructive, particularly since it reduces the likelihood of court review after the fact. However, RRA also endeavors to ascertain whether the settlements arise because of a truly collaborative approach among the parties, or if

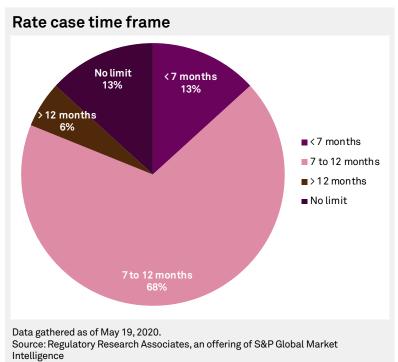
they result from concern by the companies that the commissioners' views may be more extreme than the intervenors', or that the intervenors will take a much more extreme position in a litigated framework than in a closed-door settlement negotiation resulting in a less constructive outcome.

Rate case timing

For each state commission, RRA considers whether there is a set time frame within which a rate case must be decided, the length of any such statutory time frame and the degree to which the commission adheres to that time frame.

Generally speaking, RRA views a set time frame as preferable, as it provides a degree of certainty as to when any new revenue may begin to be collected.

About two-thirds of state commissions nationwide have a rule or statute that requires a rate case to be decided within seven to 12 months of filing.



Shorter time frames may apply for limited-issue proceedings, but there are very few states where a rate case will take less than seven months to be decided.

In addition, a shorter time frame for a decision generally reduces the likelihood that the actual conditions during the first year the new rates will be in effect will vary markedly from the test period utilized to set new rates, thus keeping regulatory lag to a minimum.

Interim procedures

The ability to implement all or a portion of a proposed rate increase on an interim basis prior to a final decision in a rate case is viewed as constructive. However, should the commission approve a rate change that is markedly below the rates implemented on an interim basis, the utility would be required to refund any related over-collections, generally with interest.

In some instances, commission approval is required prior to the implementation of an interim increase and may or may not be easy to obtain, while in others, state law or commission rules permit the companies to implement interim rate increases as a matter of course. In some instances, the commission may establish a date prior to the final decision in the case that will be the effective date of the new rates. In these instances, the company may be permitted to recoup any revenue that was not collected between the effective date and the decision date.

Rate base

A commission's policies regarding rate base can also impact the ability of a utility to earn its authorized ROE. These policies are often outlined in state statutes, and the commission usually does not have much latitude with respect to these overall policies.

With regard to rate base, commissions are about evenly split between those that employ a year-end, or terminal

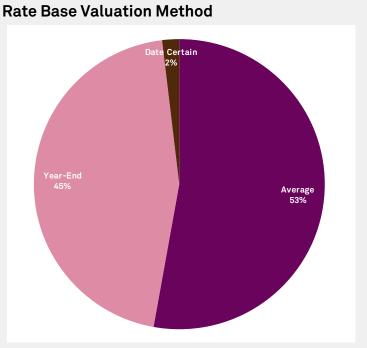
valuation and those that utilize an average valuation, with one using a "date certain." In some instances, the commission may employ a different rate base valuation method depending on the utility type or the type of case — general rate case or limited-issue proceeding — or based on the test year selected by the company.

In general, assuming rate bases are rising, i.e., new investment is outpacing depreciation, a year-end valuation is preferable from an investor viewpoint.

Again, this relates to how well the parameters used to set rates reflect actual conditions that will exist during the rate-effective period; hence, the more recent the valuation, the more likely it is to approximate the actual level of rate base being employed to serve customers once the new rates are placed into effect.

Some commissions permit post-test year adjustments to rate base for "known and measurable" items, and, in general, this practice is beneficial to the utilities.

However, the rules with respect to what constitutes a known and measurable adjustment are not always specific, and there can be a good deal of controversy about what does and does not pass muster.



Data gathered as of May 19, 2020.

Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence



Another key consideration is whether state law and/or the commission generally permit the inclusion in rate base of construction work in progress, or CWIP, for a cash return. CWIP represents assets that are not yet, but ultimately will be, operational in serving customers.

Generally, investors view inclusion of CWIP in rate base for a cash return as constructive, since it helps to maintain cash flow metrics during a large construction cycle. Alternatively, the utilities accrue allowance for funds used during construction, which is essentially booking a return on the construction investment as a regulatory asset that is recoverable from ratepayers once the project in question becomes operational.

While this method bolsters earnings, it does not augment cash flow and does not support credit metrics. For a more in-depth look at rate base issues, refer to the RRA report entitled Rate base: How would you rate your knowledge of this utility industry fundamental?

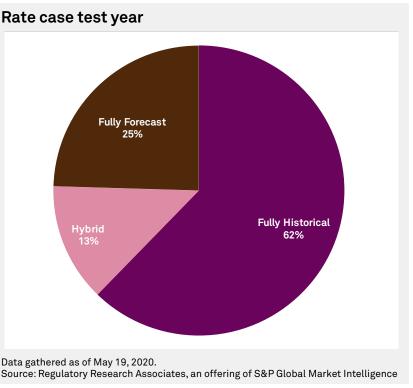
Test period

With regard to test periods, there are a number of different practices employed, with the extremes being fully forecast at the time of filing, which is considered to be most constructive, on the one hand, and fully historical at the time of filing, considered to be least constructive, on the other.

Some states utilize a combination of the two, in which a utility is permitted to file a rate case that is based on data that is fully or partially forecast at the time of filing and is later updated to reflect actual data that becomes known during the course of the proceeding.

In these cases, the test year is historical by the time a decision is ultimately rendered, and so regulatory lag remains something of a problem.

Almost two-thirds of the 53 jurisdictions covered by RRA utilize a test year that is historical at the time of filing. As with rate base valuation, in some states, commissions use different test period types for different types of proceedings or for different utility types. The accompanying



map shows the predominant treatment in each state.

Many of the jurisdictions allow for known and measurable adjustments to the test year, but the statutes governing the definition of known and measurable can be ambiguous, and there can be wide disagreement among the rate case parties as to which adjustments qualify.

Return on equity

ROE is perhaps the single most litigated issue in any rate case. There are two ROE related issued that RRA considers when evaluating an individual rate case and the overall regulatory environment: (1) how the authorized ROE(s) compares to the average of returns authorized for energy utilities nationwide over the 12 months or so immediately preceding the decision; and (2) whether the company has been accorded a reasonable opportunity to earn the authorized return in the first year of the new rates.



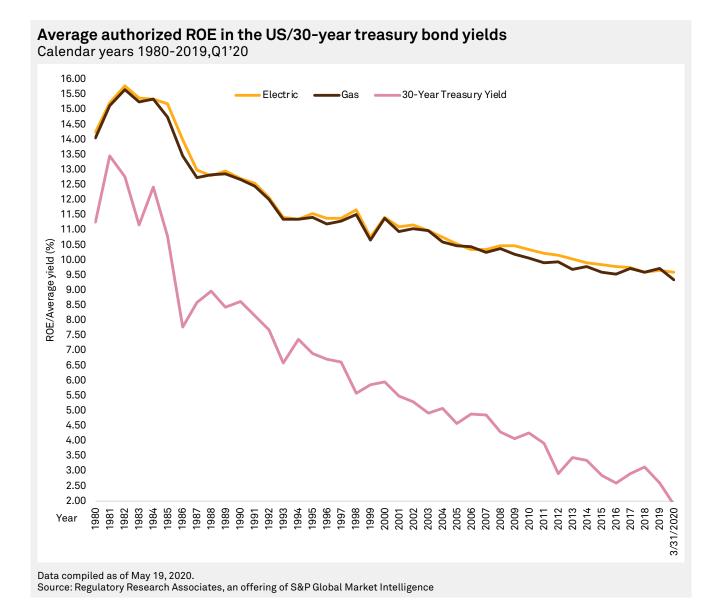
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With regard to the first criterion, RRA looks at the ROEs historically authorized utilities in a given state and compares them to utility industry averages, as calculated in RRA's <u>Major Rate Case Decisions Quarterly Updates</u>. When referring to these "averages," RRA means the average ROE approved in cases decided in a particular year; returns carried over from prior years are not included in the averages.

Intuitively, authorized ROEs that meet or exceed the prevailing averages at the time established are viewed as more constructive than those that fall short of these averages. However, ROEs overall have been declining steadily since 1980, falling below 10% in for the first time in 2011 for gas utilities and 2014 for electric utilities, and remaining below that benchmark since.

Interest rates have been a key factor driving authorized ROEs downward, but commission determinations that various alternative or innovative ratemaking mechanisms have reduced risk for the companies and their investors across the board have played a role as well.



Consumer advocacy organizations continue to argue that lower returns on equity are warranted because of riskreducing factors, such as limited-issue riders, decoupling mechanisms, alternative regulation constructs and changes to basic rate design.

This presents a stark contrast to views held by both fixed-income and equity investors that utilities are becoming more <u>risky</u> because of large capital spending plans, limited sales growth potential, changes in the structure of the industry and the regulatory framework occasioned by new technologies and the public policy shift favoring renewable resources, federal tax reform impacts, interest rate volatility and now the challenges being posed by overall market volatility as the coronavirus pandemic drags on.

With regard to the second consideration, in the context of a rate case, a utility may be authorized a relatively high ROE, but factors such as capital structure changes, the age or "staleness" of the test period, rate base and expense disallowances, the manner in which the commission chooses to calculate test year revenue, and other adjustments may render it unlikely that the company will earn the authorized return on a financial basis.

With respect to capital structure, most commissions utilize the company's actual capital structure at a given point in time, but in some instances the commission may rely on a hypothetical capital structure that represents a mix of debt and equity that the commission views as more reasonable or economically efficient. If the commission uses a capital structure that is more highly leveraged that the company's actual structure, this will lower the overall return authorized and the revenue requirement ultimately approved, and may render it more difficult for the company to earn the authorized return on its actual equity.

Even if a utility is accorded a "reasonable opportunity" to earn its authorized ROE, there is no guarantee that the utility will do so. The revenue requirement and ROE established in a rate case are targets that the commission believes the established rates will allow the utility to attain.

Various factors such as weather, management efficiency, unexpected events, demographic shifts, fluctuations in economic activity and customer participation in energy conservation programs may cause revenue and earnings to vary from the targets set.

Hence, the overall decision may be restrictive from an investor viewpoint even though the authorized ROE is equal to or above the average. For a more detailed discussion of the rate case process, refer to the RRA report entitled <u>The Rate</u> <u>Case Process: A Conduit to Enlightenment</u>.

Accounting

RRA looks at whether a state commission has permitted unique or innovative accounting practices designed to bolster earnings. Such treatment may be approved in response to extraordinary events such as storms or for volatile expenses such as pension costs. Generally, such treatment involves deferral of expenditures that exceed the level of such costs reflected in base rates. In some instances the commission may approve an accounting adjustment to temporarily bolster certain financial metrics during the construction of new generation capacity.

From time to time, commissions have approved frameworks under which companies were permitted to, at their own discretion, adjust depreciation in order to mitigate underearnings or eliminate an overearnings situation without reducing rates. These types of practices are generally considered to be constructive from an investor viewpoint.

Federal tax law changes enacted in 2017 and effective in 2018, particularly the reduction in the corporate federal income tax rate to 21% from 35%, had sweeping impacts on utilities, with a flurry of ratemaking activity during 2018 and 2019. While the issues have been addressed for most of the RRA-covered companies, there are still some that have not.

For most of the companies that have already addressed the implications with regulators, rates have been reduced to reflect the ongoing impact of the lower tax rate, refunds to return to ratepayers related deferred over-collections are occurring over a relatively short time period and amortization of the related excess accumulated deferred income





tax liabilities is occurring over varying time periods — generally over the lives of the companies' assets for protected amounts and most often five to 10 years for unprotected amounts. RRA has been monitoring these developments and their impact on credit ratings and investor risk.

The ongoing COVID-19 pandemic and how the related costs are categorized and recovered will be something RRA will be focusing on in the coming months.

Alternative regulation

Generally, RRA views as <u>constructive</u> the adoption of <u>alternative regulation plans</u> that are designed to streamline the regulatory process and cost recovery or allow utilities to augment earnings in some way. These plans can be broadly or narrowly focused. Narrowly focused plans may: allow a company or companies to retain a portion of cost savings relative to a base level of some expense type, e.g., fuel, purchased power, pension cost, etc.; permit a company to retain for shareholders a portion of off-system sales revenues; or provide a company an enhanced ROE for achieving operational performance and/or customer service metrics or for investing in certain types of projects, e.g., demand-side management programs, renewable resources, new traditional plant investment.

Formula-based	Multi-year rate			Electric fuel/	Capacity release
ratemaking	plans	Earnings sharing	Incentive ROEs	Gas costs	Off-system sales
Alabama	California	Alabama	Colorado	Indiana	Colorado
Arkansas	Connecticut	Arkansas	Iowa	Idaho	Delaware
Georgia	Dist. of Columbia ²	Connecticut	Kansas ²	Iowa	Florida
Hawaii	Florida	Florida	Mississippi	Illinois	Indiana
Illinois	Georgia	Georgia	Montana ²	Kansas	Iowa
Louisiana—NOCC	Hawaii	Hawaii	Nevada	Kentucky	Kentucky
Louisiana—PSC	Louisiana—NOCC	Idaho	Ohio	Maryland	Louisiana
Maine	Maine	Iowa	Virginia	Missouri	Massachusetts
Massachusetts	Maryland ²	Kansas	Washington ²	Montana	Missouri
Minnesota	Massachusetts	Louisiana—NOCC	Wisconsin	New Jersey	New Jersey
Mississippi	Minnesota	Louisiana—PSC		Oregon	New York
Pennsylvania ²	New Hampshire	Maine		Tennessee	North Dakota
Tennessee	New York	Massachusetts		Rhode Island	New Jersey
Texas—RRC	Ohio	Mississippi		Utah	Oklahoma
Vermont	Pennsylvania ²	Nevada		Vermont	Pennsylvania
	Rhode Island	New Mexico		Virginia	Rhode Island
	South Carolina	New York		Wyoming	South Dakota
	Utah	Oklahoma			Tennessee
	Vermont	Oregon			Texas—PUC
	Washington ²	Rhode Island			Texas—RRC
	Wisconsin	South Dakota			Utah
		Vermont			
		Virginia			
		Washington			
		Wisconsin			

As of May 19, 2020.

NOCC=New Orleans City Council; PSC=Public Service Commission; PUC=Public Utility (ies) Commission; RRC=Railroad Commission.

¹Mechanism in place for at least on utility in the state, unless otherwise noted.

²Specifically permitted by rule, law or commission order; no mechanism currently in place.

Source: Regulatory Research Associates, a group withinn S&P Global Market Intelligence.

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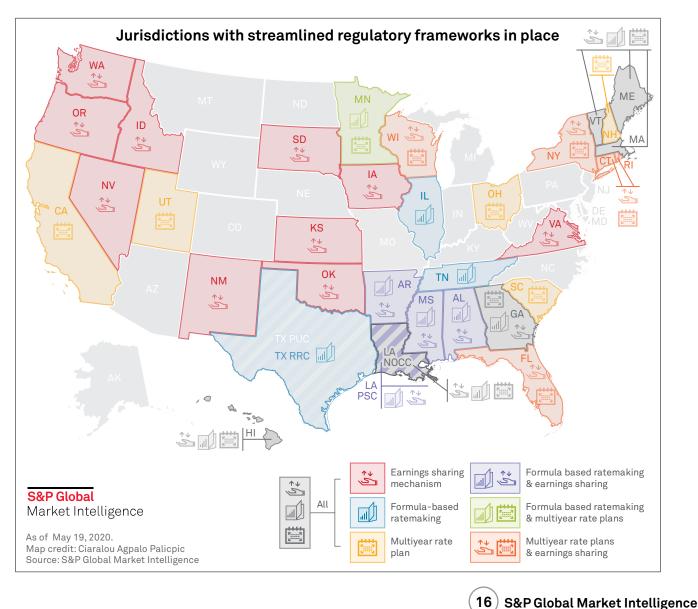
RRA Regulatory Focus: State Regulatory Evaluations

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The use of plans with somewhat broader scopes, such as ROE-based earnings sharing plans, is, for the most part, considered to be constructive, but it depends upon the level of the ROE benchmarks specified in the plan and whether there is symmetrical sharing of earnings outside the specified range.

Some states employ even more broad-based plans, known as formula-based ratemaking. Formula-based ratemaking plans generally refer to frameworks where the commission established a revenue requirement, including a target ROE, capital structure and rate of return for an initial rate base as part of a traditional cost or service base rate proceeding. Once the initial parameters are set, rates may adjust periodically to reflect changes in expenses, revenue and capital investment. These changes generally occur on an annual basis, and there may be limitations on the percentage change that can be implemented in a given year or period of years.

Others use multiyear rate plans, under which the commission approves a succession of rate changes that are designed to take into account anticipated changes in revenues, expenses and rate base. The commission may approve a static authorized ROE or the plan may provide for adjustments to the ROE during the plan's term. These plans often include true-up mechanisms to ensure that the company makes the investments it has committed to make at the inception of the plan. The plans often include earnings sharing mechanisms and may also include performance-based ratemaking provisions.





Court actions

This aspect of state regulation is particularly difficult to evaluate. Common sense would dictate that a court action that overturns restrictive commission rulings is a positive. However, the tendency for commission rulings to come before the courts and for extensive litigation as appeals go through several layers of court review may add an untenable degree of uncertainty to the regulatory process. Also, similar to commissioners, RRA looks at whether judges are appointed or elected, as political considerations are more likely to influence elected jurists.

Legislation

While RRA's <u>Commission Profiles</u> provide statistics regarding the make-up of each state legislature, RRA has not found a specific correlation between the quality of energy legislation enacted and which political party controls the legislature. Of course, in a situation where the governor and legislature are of the same political party, generally speaking, it is easier for the governor to implement key policy initiatives, which may or may not be focused on energy issues.

Key considerations with respect to legislation include: how proscriptive newly enacted laws are; whether the bill is clear or ambiguous and open to varied interpretations; whether it balances ratepayer and shareholder interests rather than merely "protecting" the consumer; and whether the legislation takes a long-term view or is a "knee-jerk" reaction to a specific set of circumstances.

Legislative activity impacting utility regulatory issues has been <u>robust</u> in recent years, as state policymakers, utilities and industry stakeholders seek to address "disruptors" that challenge the traditional regulatory framework. RRA follows these developments closely with an eye toward assessing whether the states are taking a balanced, sustainable approach and how legacy utility providers will be affected by the policies being adopted.

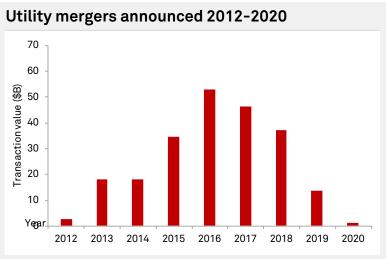
Corporate governance

The term corporate governance generally refers to a commission's ability to intervene in a utility's financial decisionmaking process through required preapproval of all securities issuances, limitations on leverage in utility capital structures, dividend payout limitations, ring fencing and authority over mergers. Corporate governance may also include oversight of affiliate transactions.

In general, RRA views a modest level of corporate governance provisions to be the norm, and in some circumstances, these provisions, such as ring fencing, have protected utility investors as well as ratepayers. However, a degree of oversight that would allow the commission to "micromanage" the utility's operations and limit the company's financial flexibility would be viewed as restrictive.

Merger and acquisition activity

Though merger and acquisition activity has slowed in 2019 and 2020, it was fairly robust in prior years, with more than 40 transactions aggregating to \$207 billion in transaction value announced between 2013 and 2018. Eight transactions with a total value of \$14 billion were announced in 2019 and thus far in 2020, two transactions aggregating to \$1 billion have been announced.



Data gathered as of May 19, 2020.

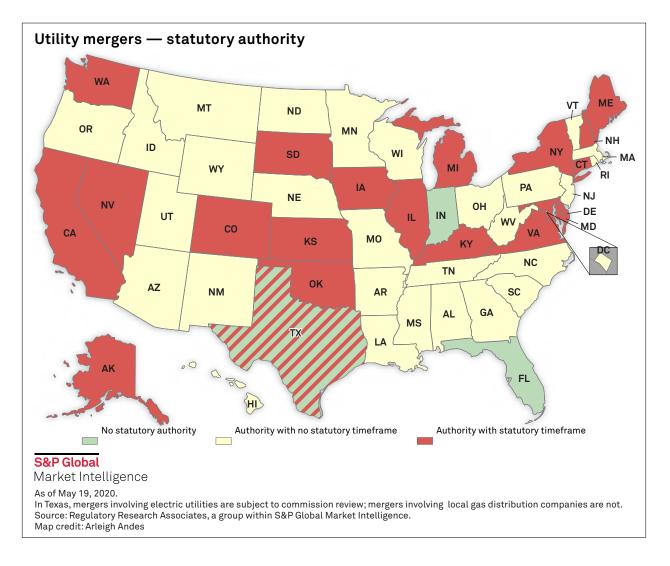
Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

Aside from the involved entities' boards of directors and shareholders, deals involving regulated utilities must pass muster with some or all of a variety of federal and state regulatory bodies. The states generally look at the day-to-day issues such as the impact on rates, safety and reliability.

Looking more closely at the role of <u>state regulators</u>, 50 of the 53 non-federal jurisdictions RRA follows have some type of review authority over proposed mergers. In Indiana and Florida, preapproval by state regulators is not required before a transaction can proceed. In Texas, prior approval by the Public Utility Commission of Texas is required before a transaction involving an electric utility can take place, but Railroad Commission of Texas approval is not required for a transaction involving a local gas distribution company.

In evaluating a commission's stance on mergers, RRA looks at several broad issues such as whether there is a statutory time frame for consideration of a transaction and how long the process actually took.

For the 50 jurisdictions where commission preapproval is required, the review process and standards vary widely. In 20 of the jurisdictions, the commission must complete a merger review within a prescribed period of time, but in the remaining jurisdictions there is no timeline for their merger reviews, which means a commission could effectively "pocket veto" a transaction by delaying a decision until the merger agreement between the applicants expires or until pursuing the transaction is no longer feasible.



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In addition, RRA considers whether a settlement was reached among the parties and, if so, whether the commission honored that settlement or required additional commitments. RRA also examines how politicized the process was: Did the governor, or in the District of Columbia the mayor, play a role? Did the transaction garner a lot of local media attention in the affected jurisdiction?

The definition of what constitutes a transaction that is subject to review can vary widely and may include sales of

individual assets or a marginal minority interest as well as larger transactions where a controlling interest or the whole company is changing hands. State law often lacks specificity with respect to what constitutes a transaction that is subject to regulatory review.

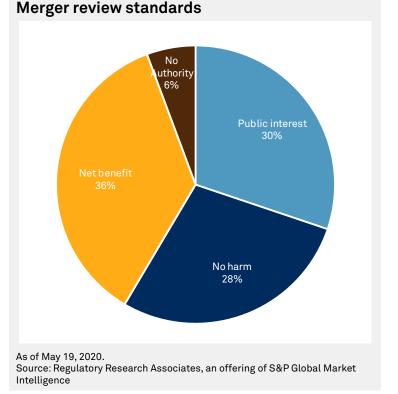
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In cases where the state commission has authority over mergers, RRA reviews the type of approval standard that is contained in state law and/or has been applied by the commission in specific situations.

For discussion purposes, RRA groups the statutory standards into three general buckets: public interest, which is generally thought to be the least restrictive, no net ratepayer harm, which is somewhat more restrictive, and net ratepayer benefit, which is the most restrictive.

In many instances, regulators have broad discretion to interpret what the statutes may mean by these terms. So, the standard of review is often more readily apparent by looking at how prior transactions were addressed than by reading the statutory language one commission's public interest might be another's net ratepayer benefit.



More narrowly, RRA reviews the conditions placed on

the commission's approval of these transactions, including: whether the company will be permitted to retain a portion of any merger-related cost savings; if guaranteed rate reductions or credits are required that are or are not directly related to merger savings; whether certain assets were required to be divested; what type of local control and work force commitments are required; whether there are requirements for certain types of investment to further the state's public policy goals that may or may not be consistent with the companies' business models and whether the related costs will be recoverable from ratepayers; and whether the commission placed stringent limitations on capital structure and/or dividend policy or composition of the board of directors.

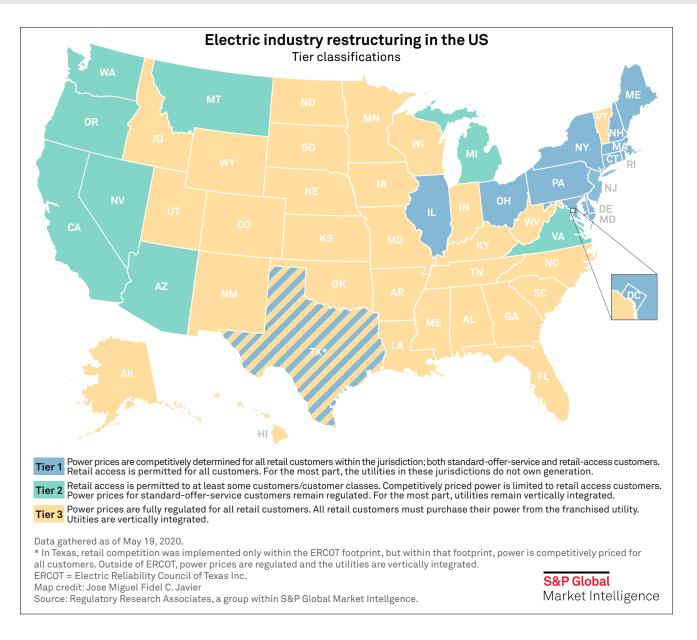
See the Merger Activity section of each <u>Commission Profile</u> for additional detail on statutory guidelines for merger reviews and detail concerning approved/rejected mergers and the associated conditions imposed.

Electric regulatory reform/industry restructuring

By electric industry restructuring, RRA means implementing a framework under which some or all retail customers have the opportunity to obtain their generation service from a competitive supplier. In a movement that began in the mid-1990s, about 20 jurisdictions have implemented retail competition for all or a portion of the customers in the utilities' service territories. The last of the transition periods ended as recently as 2011, when restructuring-related rate freezes concluded for certain Pennsylvania utilities.

RRA classifies each of the regulatory jurisdictions into one of three tiers based on their relative electric industry restructuring status.





Now that transition periods are completed, RRA has focused more on how standard-offer or default service is procured for customers who do not select an alternative provider and how much, if any, market-price risk the utility must absorb.

However, initiatives are underway in Arizona and Virginia that could lead to an expansion of retail competition in those jurisdictions.

RRA is also monitoring states where initiatives are underway to revamp the way the transmission and distribution system is configured. These efforts have arisen from expansion of renewables and a focus on grid reliability/resiliency. RRA refers to this trend as electric industry restructuring phase two.

Similar to phase one, the recovery of <u>stranded costs</u> and ways to ensure universal service are real concerns. In phase two, the conversation is further complicated by the need to ensure not just the physical, but also the cybersecurity of the grid. Several states got out in front of these issues and are addressing them in a broad-based way, while others



are taking a more piecemeal approach dealing with deployment of advanced metering, distributed generation and net metering, time-of-use rates, cybersecurity and other issues on an individual basis.

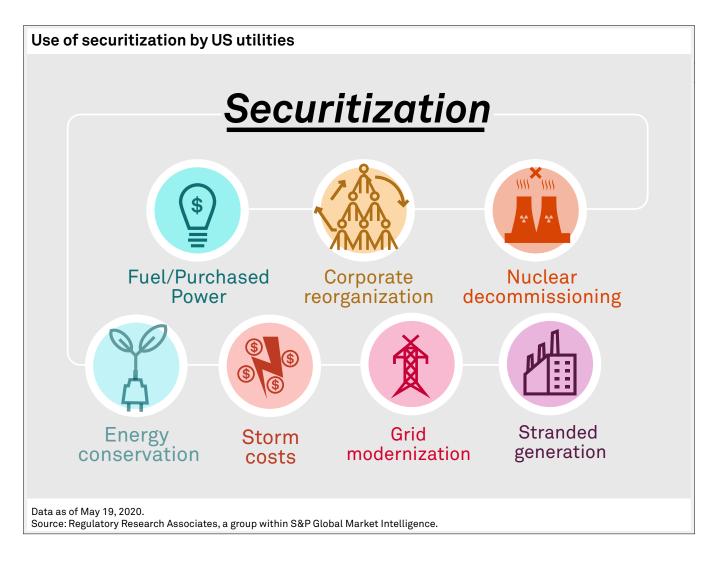
The pressure to resolve these issues is increasing, as customers and policymakers want the changes in place yesterday. As these issues unfold, the same issues that were of concern in the first phase of restructuring will warrant close attention.

Gas regulatory reform/industry restructuring

Retail competition for gas supply is more widespread than is electric retail competition, and the transition was far less contentious as the magnitude of potential stranded asset costs was much smaller. Similar to electric retail competition, RRA generally does not view a state's decision to implement retail competition for gas service as either positive or negative from an investor viewpoint. RRA primarily considers the manner in which stranded costs were addressed and how default-service obligation-related costs are recovered.

Securitization

As it pertains to utilities, <u>securitization</u> refers to the issuance of bonds backed by a specific existing revenue stream that has been "guaranteed" by regulators and/or state legislators.



Securitization generally requires a utility to assign the designated revenue stream to a "bankruptcy remote" special purpose entity, or SPE, or trust, which in turn issues bonds that will be serviced by the transferred revenue stream. The funds raised by the bond issuance flow to the utility, and in many cases are used to retire outstanding higher-cost debt and/or buy back common equity, thus lowering the company's weighted average cost of capital.

While it is unclear if securitization requires legislation, a specific legislative mandate generally improves the rating accorded the securitization bonds and lowers the associated cost of capital, given that a legislatively supported revenue stream may be more difficult to rescind than a stand-alone order of a state commission. In RRA's experience, no state commission has authorized securitization in the absence of enabling legislation.

Securitization is viewed as an attractive option because it allows regulators to minimize the customer rate impacts related to recovery of a particular utility asset. The carrying charge on the asset would be the lower interest rate applied to a highly rated, usually AAA, corporate bond rather than the utility's weighted average cost of capital or even the interest rate on typical utility bonds, which are generally rated BBB and carry higher interest rates.

At the same time, securitization simultaneously reduces the investment risk for the utility by providing the utility up front recovery of its investment in what are usually non-revenue-producing assets. The company can then redeploy those investment dollars elsewhere.

The energy industry's introduction to asset securitization occurred in the mid-1990s, when legislation was enacted in certain states enabling utilities to securitize mandated conservation investments.

In the late 1990s and early 2000s, several states that implemented retail competition for electric generation enacted legislation allowing securitization to be used for recovery of uneconomic generating or other physical assets, above-market-priced purchased power contracts, regulatory assets, nuclear decommissioning costs, etc., that had the potential to become unrecoverable, or stranded, in a fully competitive market for generation supply.

In recent years, changing industry dynamics have once again begun to raise concerns about the prospects of stranded costs and securitization is being used to address generation facilities that are retired prematurely.

Securitization has also been used as part of reorganization plans, to finance fuel/purchased power balances, distribution system improvements and extraordinary storm costs.

Adjustment clauses

Since the 1970s, <u>adjustment clauses</u> have been widely utilized to allow utilities to recover fuel and purchased power costs outside a general rate case, as these costs are generally subject to a high degree of variability. In some instances, a base amount is reflected in base rates, with the clause used to reflect variations from the base level, and in others, the entire annual fuel/purchased power cost amount is reflected in the clause.

Over time, the types of costs recovered through these mechanisms were expanded in some jurisdictions to include such items as pension and healthcare costs, demand-side management program costs, Federal Energy Regulatory Commission-approved regional transmission organization costs, new generation plant investment, and transmission and distribution infrastructure spending.

RRA generally views the use of these types of mechanisms as constructive but also looks at the frequency at which the adjustments occur, whether there is a true-up mechanism, whether adjustments are forward-looking in nature where applicable, whether a cash return on construction work in progress is permitted and whether there may be some ROE incentive for certain types of investment.

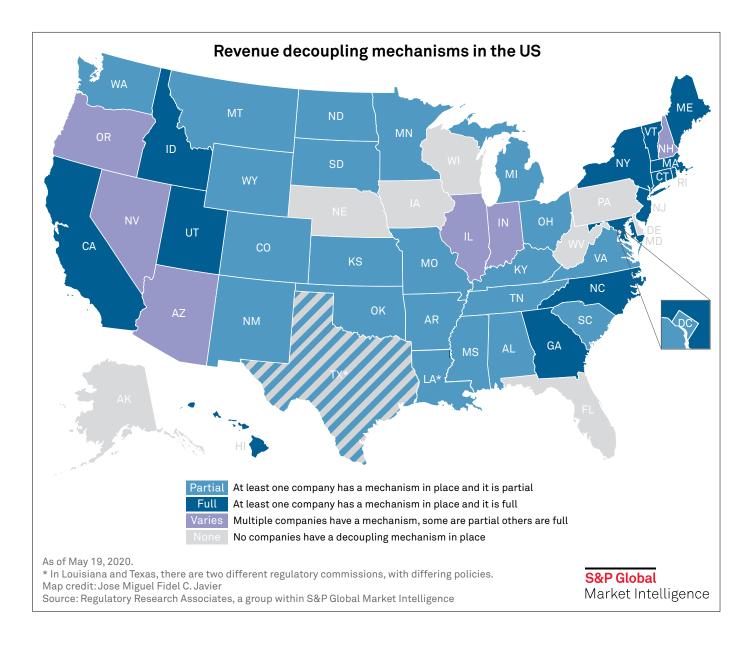
Another class of adjustment clauses, revenue decoupling mechanisms, allow utilities to adjust rates between rate cases to reflect fluctuations in revenues versus the level approved in the most recent base rate case that are caused by a variety of factors.



Some of these factors, such as weather are beyond a utility's control and the mechanism can work both ways — in other words it can allow the company to raise rates to recoup revenue losses associated with weather trends that reduce customer usage and can also require the company to reduce rates when weather trends cause usage to be higher than normal.

As energy efficiency initiatives have expanded, decoupling mechanisms have also been implemented to reduce the disincentive for utilities in pursuing energy conservation programs by making the utilities whole for reductions in sales volumes and revenues associated with customer participation in these programs.

Some of these mechanisms also allow the utility to adjust rates to reflect fluctuations in customer usage that are brought about by broader economic issues, such as demographic shifts, the migration of large commercial/industrial customers to other service areas, the shutdown of such businesses due to changes in their respective industries, recessions and theoretically, crises such as the current COVID-19 pandemic.



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RRA considers a decoupling mechanism that adjusts for all three of these factors to be a "full" decoupling mechanism and designates those that address only one or two of these factors as "partial" decoupling mechanisms.

Generally, an adjustment mechanism would be viewed as less constructive if there are provisions that limit the utility's ability to fully implement revenue requirement changes under certain circumstances, e.g., if the utility is earning in excess of its authorized return.

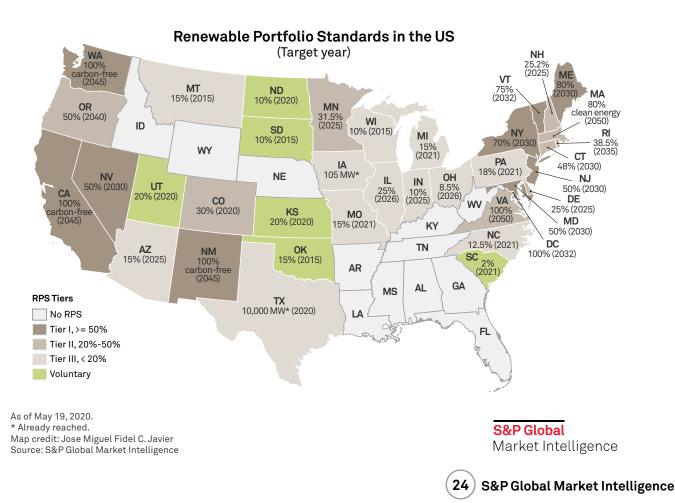
Integrated resource planning

RRA generally considers the existence of a resource-planning process to be constructive from an investor viewpoint as it may provide the utility at least some measure of protection from hindsight prudence reviews of its resource acquisition decisions. In some cases, the process may also provide for preapproval of the ratemaking parameters and/ or a specific cost for the new facility. RRA views these types of provisions as constructive, as the utility can make more informed decisions as to whether it will proceed with a proposed project.

Renewable energy/emissions requirements

As with retail competition, RRA does not take a stand as to whether the implementation of renewable portfolio standards, or RPS, or an emissions reduction mandate is positive or negative from an investor viewpoint. However, RRA considers whether there is a defined preapproval and/or cost-recovery mechanism for investments in projects designed to comply with these standards.

RRA also reviews whether there is a mechanism such as a rate increase cap that ensures that meeting the standards does not impede the utility's ability to pursue other investments and/or recover increased costs related to other facets of its business. RRA also looks at whether incentives, such as an enhanced ROE, are available for these types of projects.



RRA Regulatory Focus: State Regulatory Evaluations

In recent years, the focus on renewables has surged across the United States, with all but 12 jurisdictions developing some type of RPS. The proliferation of renewables, particularly those that are customer-sited or distributed resources, and the related rise of battery storage and electric vehicles have raised questions regarding the traditional centralized industry framework and whether that framework needs to change, perhaps ushering in a second phase of electric industry restructuring. How these changes are implemented is something RRA will be watching closely.

With respect to emissions, the threat of a federal carbon emissions standard for utilities and the spread of statelevel initiatives have caused many companies to rethink legacy coal-fired generation, causing plants to be shut down earlier than anticipated. How the commissions address these "stranded costs" also poses a risk for investors and bears monitoring.

The zero-carbon movement has also caused utilities/states to re-examine investments in nuclear facilities and, in some cases, to develop programs designed to support the continued operation of those facilities even though they may not be economic from a competitive-markets standpoint. How these issues are addressed is something that RRA is also monitoring.

Rate structure

RRA looks at whether there are economic development or load-retention rate structures in place and, if so, how any associated revenue shortfall is recovered.

RRA also looks at whether there have been steps taken over recent years to reduce/eliminate interclass rate subsidies, i.e., to equalize rates of return across customer classes.

In addition, RRA considers whether the commission has adopted or moved toward a straight-fixed-variable rate design, under which a greater portion of a company's fixed costs are recovered through the fixed monthly customer charge, thus according the utility greater certainty of recovering its fixed costs.

This is increasingly important in an environment where weather patterns are more volatile, organic growth is limited due to the economy and the proliferation of energy efficiency/conservation programs, and large amounts of non-revenue-producing capital spending is required to upgrade and strengthen the grid.

Fixed vs. variable costs		
Fixed	Variable	
Depreciation	Gas commodity	
Delivery O&M	Electric commodity	
Property taxes	Generation O&M	
Return on investment		
Customer service		
As of May 19, 2020		

As of May 19, 2020. Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence.

In conjunction with the influx of renewables and distributed generation, the issue of how to compensate customerowners for excess power they put back into the grid has become increasingly important and in some instances controversial. How these pricing arrangements, known as net metering, are structured can impact the ability of the utilities to recover their fixed distribution system costs and by extension their ability to earn their authorized returns.

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