



# THE MYTH OF VIRGINIA'S RATE UTOPIA A Comparison of Rates, Riders, and Bills

A REPORT BY THE Virginia Poverty Law Center





he Virginia Poverty Law Center (VPLC) is committed to leading and coordinating efforts to seek justice in civil legal matters for lower income Virginians. While it isn't shocking to us, many have wondered why VPLC has gotten so involved recently at the legislative and regulatory levels in energy issues. The reason is simple: We kept hearing from utility representatives and policymakers that Virginia had some of the lowest electricity rates in the country. That didn't seem to coincide with the feeling many of our clients had that their bills were too high or the conversations we had with organizations who give utility assistance.

Thus, we conducted an in-depth study to try to gain more insight into this matter, specifically the alarming data from the Energy Information Administration showing that in Virginia, residential electricity rates are competitive compared to nationwide averages, but the state has the 10<sup>th</sup> highest residential electricity bills. VPLC has been representing lower income Virginians at all levels of government and administration since 1978. Back then, there were greater resources for legal aid programs, and VPLC had the technical expertise and capacity to cover a wide array of issues, including utility rate-setting cases before the SCC and utility policy matters at the Virginia General Assembly.

Today, as families across Virginia attempt to recover after the Great Recession, one common theme emerged: wages have stayed stagnant or declined, and even though people were back to work, many families found it hard to cover some of the most basic expenses, namely housing costs and utilities. VPLC maintains a hotline for those facing issues with predatory loans. We hear story after story of people using predatory loan products, not for one-time emergency expenses, but just to stay on top of everyday bills such as utilities.

We have come to realize the need to recommit our efforts to looking at the cost impact of all utilities, particularly electric utilities, on low-income families. We began our quest looking at both short-term, but more importantly, longer term solutions to help lower-income families be resilient in the face of potentially higher utility costs in the future, whatever the reasons.

We assumed energy efficiency would become an important solution for utility affordability in the long term. In an age where so many programs seek to help the low-income build wealth, perhaps investments in energy efficiency would be the most cost-effective way to help stop the cycle of poverty.

This report is our attempt to answer one ultimate question: If our electricity rates are so low, why are our bills so high? We also know that energy efficiency measures have been shown to reduce overall energy use, lower electricity bills, and negate the need for new power plant construction. So, we dug deeper. What is Dominion's energy efficiency potential, especially compared to its peers? Our clients and all utility consumers in Virginia deserve an answer, and we hope this study sheds some light.

# kwh

# **EXECUTIVE SUMMARY**

## Background

Virginia has the 10th highest average residential electricity **bills** in the nation, per the most recent data from the United States Energy Information Administration (EIA).

n its face, this is a worrisome statistic for anyone concerned about the burdens of low-income citizens in the Commonwealth. To the layperson, this is a vexing statistic considering numerous and repeated claims by utility representatives that Virginia has some of the lowest electricity **rates** in the country, especially compared to its peers.

Given these seemingly contradictory data points of low rates but high bills, this report compares the electric **rates** and **bills** of Virginia's largest utility, Dominion Virginia Power, against the averages of peer states and their utilities. We also reviewed Dominion's current energy efficiency savings and how it compares with its peers. We use information publicly available from national studies, utility filings at the State Corporation Commission (*SCC*), and EIA data.

We discovered that Dominion Virginia Power's base rates are, at best, *average* compared with their peer sister utilities. In addition, the cause of the significantly higher **bills** is due to additional charges Dominion is allowed to pass on to the customers in the form of "RACs" — rate adjustment clauses. These "RACs" include Dominion's cost to build new power plants, to 'meet demand.' However, we also found that Dominion lags significantly behind its peers in capturing savings through energy efficiency programs. Energy efficiency is a low-cost means of generation, and several of Dominion's peer utilities are already saving nearly twice, if not more, than what Dominion saves through energy efficiency programs. Data shows that in 2015 Dominion Virginia Power's potential energy savings in rental homes alone could have reduced energy bills in Virginia by over \$10,000,000.



# Report Outline TWO MAIN SECTIONS

**SECTION 1** 

## Rates vs. Bills: What's the Difference?

Section 1 of this report provides a short primer of electric utility law in Virginia. Our goal is to simplify a complicated policy area. The section gives the reader a brief overview of the primary issue at hand: **What is the difference between electricity rates versus electricity bills, and why does it matter to the everyday consumer?** 

R ecently, a Dominion representative stated in an op-ed that Dominion's electricity base rates have been "remarkably stable and well below the national and regional averages,"<sup>1</sup> comparing its rates to two jurisdictions north of Virginia (*the District of Columbia and Maryland*).

Dominion argues that because of its low base rates as compared to other states, Dominion customers therefore, enjoy low-cost electricity service. These arguments mirror similar claims from Dominion made in recent paid advertisements, in official testimony before the Virginia General Assembly, and in other venues.

Our analysis finds the opposite. While the electricity base rates are a factor in determining the overall cost of service to the customer, additional charges that often comprise a substantial portion of the customer's costs must also be analyzed to determine the total final electricity **bill** — which is the ultimate barometer of whether electricity costs are competitive in comparison to peer states or peer utilities. We found that Dominion's bills increased substantially due to a series of "rate adjustment clauses" (RACs), which are additional charges added on top of, and separate from, the base rate frequently cited by Dominion.

Specifically, we found:

- » Dominion's bills increased 30% between 2006 and 2016
- » 42% of Dominion's bill increases were due to RACs, between 2007 and 2012
- » Dominion fell in bill rankings, dropping from 8th place to 12th place out of 20 peer utilities between 2006 and 2016.

# What's Dominion's Energy Efficiency Potential?

Section 2 of this report analyzes Dominion's potential for energy efficiency savings compared to the averages of what peer states and utilities are already achieving.

he American Council for an Energy-Efficient Economy (ACEEE) ranked Virginia 33<sup>rd</sup> in its 2016 rankings of states' energy efficiency policies. Similarly, Ceres ranked Dominion 30<sup>th</sup> out of 30 of the largest investor-owned utilities in the country on their energy efficiency savings.<sup>2</sup> Each year, consumer advocates, housing groups, and others propose legislative measures designed to strengthen Virginia's energy efficiency programs, to reduce energy waste, lower electricity bills, and save consumers money. The SCC often hears advocacy in support of similar regulatory measures.

Dominion, for its part, has recently highlighted its commitment to fund a pilot program for low-income energy efficiency programs. This commitment was the result of a controversial bill from the 2015 legislative session that froze *base rates* for Dominion and Appalachian Power Company. In the same op-ed cited above, Dominion claimed that the utility delivered "*best in class*" levels of funding "to weatherize homes [and] to save money and energy in the long run" for their most vulnerable customers.

# Our analysis finds that Dominion has a long way to go to match the energy savings of its peer states and utilities as Dominion consistently lags its peers in reducing energy waste.

Specifically, we found:

- » Dominion's energy efficiency performance was worse than peer state averages each year, from 2006–2015
- » Dominion's energy efficiency performance is currently half of peer state averages
- » If Dominion's energy efficiency performance were to match either the 50<sup>th</sup> percentile or 75<sup>th</sup> percentile of peer states, **Dominion would still lag far behind several sister utilities**

The upside of these low rankings for Dominion is that the utility has the potential to make substantial progress to improve its energy efficiency savings, minimizing the need to build more expensive power plants. Dominion can follow the example of their peer utilities (those operating in the southeast United States, such as Duke Energy or Kentucky Power) to implement energy efficiency programs that would significantly increase their energy efficiency savings, effectively stabilizing and potentially reducing the economic burden of utility bills on low-income households.



## Section 1 RATES vs. BILLS: WHAT'S THE DIFFERENCE?

# Bills in Virginia are Higher than the National Average

Utility advocates frequently claim that Virginians enjoy low electric rates, but that only tells part of the story. In fact, in the metric that most directly affects customer's pocketbooks — average monthly electric bills — out of all 50 states and the District of Columbia, Virginians pay the 10<sup>th</sup> highest bills in the nation. As seen in Table 1 below, Virginian commercial customers fare similarly poorly.

#### Table 1 / EIA — National Electricity Bill Rankings (Actual)

|                          | National Average | VA Average | VA National Ranking | VA South Atlantic<br>Ranking |  |  |
|--------------------------|------------------|------------|---------------------|------------------------------|--|--|
| Residential <sup>3</sup> | \$114.03         | \$130.58   | 10th highest        | 5th highest                  |  |  |
| Commercial⁴              | \$670.82         | \$772.22   | 12th highest        | 3rd highest                  |  |  |

e note that when assessing average electricity bills of residential customers, it is common practice to estimate bill averages using "the typical 1,000 kWh per month user" as a standard. However, Virginia's average monthly consumption is 1,149 kWh, greater than any state in the South Atlantic.

Table 1 above outlines actual electricity customer bill averages as reported by the EIA.<sup>5</sup> This data is the best source of information to gauge how much consumers *are actually spending* for their electricity, rather than less reliable estimates of spending based on the counterfactual assumption that the customer consumes only 1,000 kWh of electricity monthly.

We further note and acknowledge that, according to at least one report, residential electricity rates and bills in Dominion's service territory are lower on average than in the service territory of Virginia's other main investor-owned utility, Appalachian Power Company (*APCo*).<sup>6</sup> Our report does not attempt to discern how any utility or co-op affects Virginia's overall electricity bill rankings. However, Dominion's service footprint is particularly expansive, comprising two-thirds of Virginia's electricity customers.<sup>7</sup> Due to this significant potential to affect most Virginians' pocketbooks, Dominion is the primary focus of this report.



## The Three Primary Components of a Typical Electricity Bill

In 2007, the Virginia General Assembly passed a bill known as the Virginia Electric Utility Regulation Act.<sup>8</sup> This Act returned the state to a system of utility regulation, where electricity rates from Dominion and APCo must be set and approved by Virginia's SCC.

The Utility Regulation Act of 2007 requires the SCC to review the "base rates" of the two investor-owned utilities on a biennial basis, through rate cases. In these cases, base rates are set at a level that allows an investor-owned utility to recoup its full operating costs plus a fair rate of return<sup>9</sup>. However, legislation passed in 2015, referred to as SB 1349, froze base rates and suspended biennial base rate reviews until 2022 for Dominion.<sup>10</sup>

#### Here are the primary components of a Dominion electricity bill:

- Base Rates: Under Virginia's traditional regulated utility model, base rates included all construction and operating costs of power plants those rates that encompass the utility's total cost of providing service to the customer (other than fuel costs, discussed below). Importantly, as mentioned above, the recent SB 1349 legislation froze only base rates, but still allows utilities to increase additional charges on top of the base rate. Such charges could increase total electricity bills, while the base rate portion remains "frozen."
- 2. Fuel Adjustment Clauses are charges separate from the base rate, which cover a utility's cost of the fuel needed to provide electricity (*natural gas, coal, nuclear, biomass*) and which adjusts as prices fluctuate. Fuel adjustment clauses are "pass through charges," meaning that the customer *only* pays for the cost of fuel. The utility does not see a profit or loss on these fuel costs.
- **3.** Rate adjustment clauses (RACs) are additional charges that utilities may add to electricity bills that include covering the costs of building new power plants. RACs did not exist prior to 2007 because under Virginia's previous regulated utility model, construction costs were included in "base rates." Today, RACs (also called "riders") allow a utility to charge customers these generation costs associated with new capital projects, separately from the base rate. Approval of a RAC by the SCC guarantees a full return on investment regardless of how much the plant is used to produce electricity, an incentive for Dominion to build its own power plants.

## How Rate Adjustment Clauses (RACs) Impact Dominion's Bills

For a comprehensive understanding of a typical residential customer's electricity bill, we examined past tariff and other SCC filings from Dominion, and national data from the EIA and other entities commonly relied upon in the industry (see Appendix A for a full methodology of analyzing Dominion's RACs).

RACs are the additional charges added to bills to pay for new power plant construction and recover costs related to the transmission and distribution infrastructure. These charges currently make up almost one-fourth of Dominion's typical residential bill. Base rates account for about 60% of a typical residential electricity bill for Dominion, as seen in Figure 1 below.



#### Figure 1 / Typical Component Distribution for 1,000 kWh Dominion Bill^ $\!\!^{11}$

After determining the current contribution of generation RACs to a typical residential bill, we reviewed historical data to find how base rates and additional charges like RACs within the residential bill have changed over time. As shown in Table 2 below, a typical 1,000 kWh Dominion residential bill increased by 30% from 2006 to 2016, which is an increase in more than \$26 per month or more than \$300 per year.

#### Table 2 / Typical Historical Residential Monthly 1,000 kWh Electric Bill

| PERIOD                      | Period<br>Start Bill | Period<br>End Bill | Change<br>Over Period | % Change in Bill<br>Over Period |
|-----------------------------|----------------------|--------------------|-----------------------|---------------------------------|
| Jan. 1, 2006 — July 1, 2007 | \$87.18              | \$92.39            | \$5.21                | 6%                              |
| July 1, 2007 — July 1, 2012 | \$92.39              | \$109.02           | \$16.63               | 18%                             |
| July 1, 2012 — Jan. 1, 2016 | \$109.02             | \$113.24           | \$6.93                | 4%                              |
| Jan. 1, 2006 — Jan. 1, 2016 | \$87.18              | \$113.24           | \$26.06               | 30%                             |

As outlined in Table 3, 42% of the increase in bills between 2007 and 2012 was due to new generation RACs. The contribution of generation RACs within this five-year snapshot indicates that these RACs are a major determinant of Dominion's overall bill increase.

#### Table 3 / Contributions to Typical Residential Monthly 1,000 kWh Electric Bill Increase From 2007-2012

| REASON FOR BILL CHANGE              | Amount  | % of Bill Change |
|-------------------------------------|---------|------------------|
| Fuel Cost Increase                  | \$4.74  | 29%              |
| Transmission Cost Related Increases | \$4.25  | 26%              |
| New Generation RACs                 | \$6.94  | 42%              |
| DSM Rate Adjustments                | \$0.70  | 4%               |
| TOTAL                               | \$16.63 | 100%             |

It is from this data that we can clearly see that the cost of new generation, i.e., new power plants, is where the largest driver for increasing consumer utility *bills* resides. Virginia must find a way to generate enough electricity to meet its needs, but at a lower cost. Energy efficiency is a low-cost means of electrical generation. Through efficiency measures, consumers will reduce demand, allowing current production to serve more customers. The cost to invest in energy efficiency measures is typically one-third the cost to build a new power plant.<sup>12</sup> Without the escalating generation costs that utilities are allowed to pass directly on to their customers through RACs, consumer bills can stabilize. While this significantly helps low-income households, all Virginia ratepayers benefit.

### **Dominion's Rankings Compared to Peer Utilities**

In a 2016 report to the Commission on Electric Utility Regulation of the Virginia General Assembly, SCC staff wrote "[Dominion's] total bill for a residential customer using 1,000 kWh was \$90.59 as of July 1, 2007, and has increased to \$111.22 as of July 1, 2016. DVP's bill increase is attributable to RACs and other rate changes approved under the Regulation Act."<sup>13</sup>

SCC staff's 2016 report compared the residential electricity rates and bills of the typical 1,000 kWh user from peer utilities in the South, since re-regulation in 2007. In their extensive report, SCC staff documented two key findings. **First, Dominion dropped in electricity bill rankings.** Out of 20 peer utilities, Dominion's ranking fell from 8<sup>th</sup> place in 2006 to 12<sup>th</sup> place in 2016.<sup>14</sup> **Second, Dominion also dropped in electricity rate rankings.** Out of 18 peer utilities, Dominion's ranking fell from 7<sup>th</sup> place in 2006 to 9<sup>th</sup> place in 2015.<sup>15</sup>

Our analysis of Dominion's electricity bills, coupled with SCC staff's report, differ from recent statements made by Dominion, including in the op-ed cited above.

- » First, Dominion's base rates in comparison to peer utilities are **not** among the lowest in the region — their rates are average.
- » Second, base rates only account for 60% of the final **bill**. Dominion's total bills have increased considerably over time, up 30% since 2006.
- » Finally, RACs, the additional charges included in customer bills, in addition to the base rate, are the single largest driver of Dominion's bill increases.

Even if Dominion's base rates are average, RACs significantly increase the final electricity bill paid by Dominion customers.



Section 2

# WHAT IS DOMINION'S ENERGY SAVINGS POTENTIAL?

## **Overview**

In the previous section, we found that Dominion's bills have increased 30% since 2006 due in large part to RACs, charges in addition to base rates, which are imposed on consumers to construct new power facilities. Consumer advocates, environmental advocates, and other affiliates often claim that in lieu of new generation, utilities can achieve cost savings for consumers, if they invested more financial resources in energy efficiency programs.

n this section, we assess Dominion's energy efficiency performance as compared to a set of peer states and utilities. Our goal is to determine whether Dominion has the potential to save more energy, thereby saving consumers money on their electricity bills.

## **Analytical Approach**

First, we began by conducting a review of the annual net generation data from SNL, an energy data and analysis company, for 2006–2015 for Dominion's new generation RACs.<sup>16</sup> Next, we benchmarked historical energy efficiency savings from a set of peer group states.<sup>17</sup> There were ten states used in the peer group: Alabama, Florida, Georgia, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Tennessee and West Virginia. These states were selected because either they border Virginia or they contain electric utilities cited in the 2015 "Report to the Commission on Electric Utility Regulation of the Virginia General Assembly and the Governor of the Commonwealth of Virginia."<sup>18</sup>

In the ACEEE's 2016 State Energy Efficiency Scorecard, Virginia ranked 33<sup>rd</sup> out of 50 states in the effectiveness of their policies and programs on energy efficiency.<sup>19</sup> The average ranking of the collective peer states listed above is 32.3. It is important to note that while some states in the U.S. achieve less energy efficiency savings than the average of the selected peer states, many states in the U.S. achieve more. Figure 2 illustrates the average energy efficiency savings as a percentage of annual retail sales for the states selected in the peer group:





#### Figure 2 / Annual Energy Efficiency Savings in Peer Group States

With data from peer group states, we calculated a mid and high scenario for historical energy efficiency potential. The mid scenario assumed a level of energy efficiency savings equal to the 50<sup>th</sup> percentile of the peer group states. The high scenario assumed a level of energy efficiency savings equal to the 75<sup>th</sup> percentile of the peer group states. For each scenario, the historical energy efficiency was compared to actual energy efficiency savings from Dominion to estimate the untapped energy efficiency potential.

### Results

In 2015, Dominion achieved 0.14% energy savings as a percentage of retail sales. This figure is slightly more than half of the average savings of Virginia's peer states. The 50<sup>th</sup> percentile of peer states achieved 0.26% energy savings as a percentage of retail sales in 2015.

In comparison to the 75<sup>th</sup> percentile of the group, Dominion's energy savings as a percentage of retail sales (0.14%) is at one-quarter of its peers (0.56%). In each year from 2006–2015, Dominion's energy efficiency performance is consistently lower than both the mid and high-performance scenarios of peer states.

As mentioned earlier in this report, ACEEE and other publications have ranked Virginia near the bottom of states nationally on policies designed to spur energy efficiency investment. As seen in Table 4 and Table 5 below, Dominion's actual energy efficiency savings from 2006–2015 significantly trail peer states who likewise are on the lower end of national energy efficiency state rankings.

#### Table 4 / Dominion's Untapped Energy Efficiency Potential — Mid Scenario

|  | Net Incremental Savings as Percentage of Retail Sales |       |       |       |       |       |       |       |       |       |  |
|--|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| MID SCENARIO   | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  |  |
| 50 Percentile of<br>Peer Group Sales   | 0.01%   | 0.01% | 0.03% | 0.07% | 0.15% | 0.26% | 0.25% | 0.28% | 0.27% | 0.26% |  |
| DVP Actual Annual<br>Energy Efficiency Savings                               | 0.00%   | 0.00% | 0.00% | 0.00% | 0.00% | 0.14% | 0.03% | 0.03% | 0.11% | 0.14% |  |
| DVP Untapped Annual<br>Energy Efficiency Savings<br>(compared to peer group) | 0.01%   | 0.01% | 0.03% | 0.07% | 0.15% | 0.11% | 0.21% | 0.25% | 0.16% | 0.12% |  |

#### Table 5 / Dominion's Untapped Energy Efficiency Potential — High Scenario

|  | Net Incremental Savings as Percentage of Retail Sales |       |       |       |       |       |       |       |       |       |  |
|--|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| HIGH SCENARIO  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  |  |
| 75 Percentile of<br>Peer Group Sales   | 0.08%   | 0.03% | 0.10% | 0.14% | 0.25% | 0.35% | 0.36% | 0.53% | 0.56% | 0.56% |  |
| DVP Actual Annual<br>Energy Efficiency Savings                               | 0.00%   | 0.00% | 0.00% | 0.00% | 0.00% | 0.14% | 0.03% | 0.03% | 0.11% | 0.14% |  |
| DVP Untapped Annual<br>Energy Efficiency Savings<br>(compared to peer group) | 0.08%   | 0.03% | 0.10% | 0.14% | 0.25% | 0.20% | 0.32% | 0.50% | 0.45% | 0.42% |  |

This analysis does not attempt to compare Dominion's untapped energy efficiency potential to the generation produced from any specific power plant constructed via a RAC. Yet it is fair to conclude that a meaningful portion of Dominion's generation output could have been saved, if Dominion matched at least the average energy savings of its peer states — which are, again, below the national average in such energy savings.

## **Comparing Dominion's Energy Savings with Sister Utilities**

So far, we've compared Dominion's energy savings as a percentage of sales in comparison to peer *states*. Figure 3 below illustrates Dominion's energy savings in relation to several sister *utilities* in the South and Midwest.



#### Figure 3 / EE Savings as % of Sales – Utilities

If Dominion's energy savings as a percentage of overall sales (0.14%) were to match either the 50<sup>th</sup> percentile (0.26%) or 75<sup>th</sup> percentile (0.56%) of peer states, Dominion would still lag significantly behind several sister utilities in the same metric. Despite nationwide growth in energy savings in surrounding states, Dominion is achieving far less. These programs are designed to reduce energy waste, lessen the need for new power plant construction, and lower consumer's energy bills.

## **Energy Efficiency for At-Risk Virginians**

As part of the 2015 legislation that froze base rates for Dominion and APCo, the two utilities were each required to create a pilot program for new energy efficiency measures targeting low-income, elderly, and disabled residents.<sup>20</sup> Due to the lack of efficiency investments made to-date by Virginia's IOU's as displayed in Figure 3 above, consumer advocates hope that new efficiency investments will help lower electricity bills, particularly for at-risk individuals. In fact, advocates in Virginia have consistently pushed policymakers to adopt additional measures to lower energy bills for consumers and reduce energy waste (*see Appendix B*).

To get a sense of potential bill savings for at-risk Virginians, we reviewed Virginia Tech's 2014 report entitled "The Impact of Energy Efficient Design and Construction on LIHTC Housing in Virginia", a report commissioned by Housing Virginia.<sup>21</sup> The report found that Virginia residents in rental units who occupy homes retrofitted to EarthCraft energy efficiency standards saved 464 kWh of energy per month versus energy consumed in similar standard construction units. This reduction in energy use amounts to energy bill savings of \$54 per month, or \$648 annually for the average Virginia renter.

As discussed above, our analysis shows that Dominion's untapped energy efficiency potential in 2015 is 0.12% of retail sales in the mid scenario and 0.42% in the high scenario. This amounts to 91,391 MWh of untapped energy efficiency potential for the mid scenario and 319,869 MWh for the high scenario in 2015, as outlined in Table 6 and Table 7 below:

#### Figure 4 / Mid Energy Efficiency Scenario



#### Table 6 / Mid Energy Efficiency Scenario

| MID<br>SCENARIO   | 2006       | 2007       | 2008       | 2009       | 2010       | 2011       | 2012       | 2013       | 2014       | 2015       |
|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| DVP Actual<br>Retail Sales<br>(MWh)                                   | 71,994,689 | 75,648,171 | 74,468,359 | 73,725,662 | 76,895,671 | 74,323,597 | 72,603,502 | 74,469,354 | 75,562,974 | 76,159,481 |
| Cumulative<br>Untapped<br>Energy<br>Efficiency<br>(MWh)               | 7,199      | 14,764     | 33,381     | 84,989     | 196,488    | 278,271    | 432,884    | 617,409    | 735,925    | 825,190    |
| DVP Retail<br>Sales with<br>Untapped<br>Energy<br>Efficiency<br>(MWh) | 71,987,490 | 75,633,407 | 74,434,978 | 73,640,673 | 76,699,183 | 74,045,326 | 72,170,618 | 73,851,945 | 74,827,049 | 75,334,291 |



#### Table 7 / High Energy Efficiency Scenario

| HIGH<br>SCENARIO  | 2006       | 2007       | 2008       | 2009       | 2010       | 2011       | 2012       | 2013       | 2014       | 2015       |
|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| VEP Actual<br>Retail Sales<br>(MWh)                                   | 71,994,689 | 75,648,171 | 74,468,359 | 73,725,662 | 76,895,671 | 74,323,597 | 72,603,502 | 74,469,354 | 75,562,974 | 76,159,481 |
| Cumulative<br>Untapped<br>Energy<br>Efficiency<br>(MWh)               | 55,796     | 78,490     | 152,959    | 254,331    | 448,493    | 597,167    | 831,758    | 1,204,318  | 1,543,856  | 1,861,599  |
| VEP Retail<br>Sales with<br>Untapped<br>Energy<br>Efficiency<br>(MWh) | 71,938,893 | 75,569,681 | 74,315,400 | 73,471,331 | 76,447,178 | 73,726,430 | 71,771,744 | 73,265,036 | 74,019,118 | 74,297,882 |

While this report does not attempt to suggest that the full total of Dominion's untapped energy efficiency potential could be directed to improve Virginia's rental housing stock to the specifics identified in the 2014 Virginia Tech report, we highlight the study to help underscore Dominion's energy savings potential in practical terms.

The 2014 Virginia Tech report found that the average rental unit had the potential to save 5,568 kWh of energy per year, provided that Virginia's standard rental unit came equipped with proper energy efficiency improvements. If extrapolated to match the untapped energy savings potential for Dominion in the mid scenario in 2015, 16,413 rental homes outfitted with upgraded energy efficiency measures would've saved Virginians \$10,635,624 on their energy bills in 2015 alone. In the high scenario, 57,447 rental homes with upgraded energy efficiency measures \$37,225,656 on their energy bills in 2015.

# CONCLUSION

kWh

count options available to you

Our client's experiences don't match Dominion's "low rate" claims. What matters most to our clients are their total electricity bills, and in that regard, Dominion ranks poorly compared to its peers. The average residential electricity bill for Dominion customers have increased by 30% since 2006, or more than \$300 per year.

n fact, in relation to peer utilities, Dominion ranks in the bottom half regarding the cost of electricity bills (12th out of 20th). Dominion's residential electricity bills are rising due in large part to new generation RACs, which we found to be the single biggest contributor to Dominion's bill increases.

To offset rising bills, peer states and utilities are investing in energy efficiency measures at levels much higher than Virginia's largest utility. **Dominion is achieving only half of the energy savings of peer states and performing even worse when compared to other sister utilities.** These actions hit our clients the hardest because energy is a regressive cost. In fact, studies have shown that the energy burdens of citizens in metropolitan areas like Richmond and Virginia Beach are far higher than average.<sup>22</sup> Energy efficiency measures can help struggling families in Virginia afford their utility bills, not to mention, food, clothes, and other vital needs.

One must be careful when analyzing electricity *rates* versus electricity *bills*. While the general public, and even some policymakers, may use the words "rates" and "bills" interchangeably, the difference is real. The base rate only accounts for 60% of the total residential bill for a Dominion customer. *Additional charges, like* RACs, account for the remainder of the bill, causing total bills to rise.

In either case — rate or bill — Dominion is falling behind. Dominion's rankings have dropped in both metrics in relation to utilities in peer states in recent years, with Dominion placing merely average or below average in these categories.

In paid advertisements, published op-eds, and public statements to state officials, Dominion has made several claims in regards to electricity affordability. First, Dominion's rates are low and stable. Second, Dominion's customers enjoy low-cost energy as compared to its peers. And third, Dominion has delivered best in class resources to improve its energy efficiency performance, particularly for low-income individuals.

The data tells a different story. We find these claims to be inaccurate.

# Appendix A

## Methodology: Dominion's Generation RACs Analysis

In order to develop a comprehensive understanding of a typical residential customer's electricity bill, we grouped the Schedule 1 residential rate<sup>23</sup> into generation, transmission, and distribution components using the current 2016 filed tariff.<sup>24</sup> The tariff includes current rates for each generation RAC in question. We calculated the cost of each RAC for Schedule 1 customers using Dominion's bill calculator worksheet<sup>25</sup>, which is consistent with the rates in the tariff. The calculator was also used to assess costs of other components of a Dominion residential electric bill, including transmission and distribution expenditures and energy efficiency RACs. We then examined current residential rates and RACs for investor-owned utilities ("IOUs") within its peer group in the South Atlantic and East South Central regions to compare generation and RAC expenses within the group.

To determine how the RACs have changed over time, we researched historical data that give insight into how Schedule 1 has changed. We reviewed past tariffs and Commonwealth of Virginia SCC filings to find historical RAC data and assess how generation RACs contributed to the typical bill increases from 2006 to 2015.<sup>26</sup>

Through review of the 2016 tariff, we identified RACs currently in effect and applicable to Schedule 1 residential customers for the Virginia City Hybrid Energy Center; Warren County Power Station; Biomass Conversions at Altavista, Hopewell, and Southampton; Bear Garden Power Station; and the Greensville Power Stations. Remington Solar is not an applicable RAC, as Dominion's filing to build the solar project was denied by the SCC in October 2015.<sup>27</sup>

## **Appendix B**

## **Policies Impacting Electricity Bills**

In 2007, the Virginia General Assembly adopted a voluntary energy efficiency target. The goal sought to reduce energy consumption by 10% by 2022 compared to a 2006 baseline by using energy efficiency programs. Later that year, SCC staff submitted a report to the General Assembly and the governor stating that the new energy efficiency goal was achievable.<sup>28</sup> In 2015, Governor Terry McAuliffe updated the state's energy efficiency goal and sought to achieve the same level of savings two years earlier, by 2020. The American Council for an Energy-Efficient Economy (ACEEE) ranks Virginia 33<sup>rd</sup> nationally on energy efficiency programs and policies in its 2016 scorecard.<sup>29</sup> The same report gives Virginia utility programs and policies — 0.5 points out of a possible 20. Neighboring states and leaders in energy efficiency have adopted measures to help customers reduce their overall consumption, thereby reducing their total monthly bills. Also, energy efficiency programs lead to reduced energy demand, lessening the need to build new construction. This report does not advocate for any specific policy or regulatory mechanism to address any key findings or results. However, we have summarized a list of policies and regulatory procedures that have been utilized in states across the nation to address consumer's need to reduce energy waste and lower electricity bills.

## The policies below are examples that are not currently practiced in Virginia:

Mandatory Energy Efficiency Resource Standard (EERS). As mentioned above, Virginia adopted a statewide voluntary efficiency goal, and the goal is not aimed at just utilities. Many states require utilities to achieve a certain level of annual energy savings.

**Utility Spending Goals.** Some states require utilities to spend a minimum amount of money, as a percentage of its overall revenue, implementing energy efficiency programs. Often, the minimum spending requirement includes carve-outs for low-income programs, designed to drive efficiency investments in hard to reach areas to people who may benefit the greatest.

**Decoupling.** Some states have implemented "decoupling" mechanisms to incentivize development of energy efficiency measures. Virginia law allows natural gas companies, but not electric utilities, to separate their profits from their sales. Revenue decoupling has been seen as a positive way to remove the incentive for utilities to sell more energy and provide additional ways to ensure utility earnings while also promoting efficiency. Modern Cost-Effectiveness Tests. State regulatory commissions rely on a variety of tests to gauge the cost-effectiveness of proposed energy efficiency programs. Many states that have seen the most robust investments in energy efficiency consider a broader range of energy efficiency benefits, like human health and environmental improvements. Accounting for more energy efficiency benefits in regulatory proceedings have led to more programs being approved as these benefits help outweigh some of the costs of implementation.

**On-Bill Financing.** Home energy efficiency improvements pay off over time, but high upfront costs to implementation cause barriers to many owners who hope to make improvements to their homes. Many states have created innovative financing solutions that allow a customer to pay back the utility over time on their energy bill. This allows customers greater access to invest in energy efficiency programs.

## Footnotes

- www.richmond.com/opinion/their-opinion/guestcolumnists/mark-webb-column-dominion-still-offersthe-best-deal-around/article\_f3936746-abf4-52a8-91ef-81666ba96e59.html
- 2. www.ourenergypolicy.org/wp-content/uploads/2016/07/ Ceres\_BenchmarkCleanEnergy2016\_062716\_2.pdf
- EIA 2015 residential rankings, available at http://www.eia. gov/electricity/sales\_revenue\_price/pdf/table5\_a.pdf
- IA 2015 commercial rankings, available at https://www.eia. gov/electricity/sales\_revenue\_price/pdf/table5\_b.pdf
- 5. EIA-861 data from 2015, the most recent information available
- 6. http://scc.virginia.gov/comm/reports/2016\_veur.pdf
- 7. www.eia.gov/electricity/sales\_revenue\_price/pdf/table6.pdf
- 8. § 56-576 of the Code of Virginia, 1950, as amended
- 9. § 56-585.1, Code of Virginia, 1950, as amended, sets forth the requirements for setting a "rate of return" by the State Corporation Commission; the SCC has set that rate at 10%
- 10. Rate reviews are suspended until 2020 for APCo
- 11. "Other" mostly include charges associated with transmission, distribution, and taxes
- 12. ACEEE, "Energy Efficiency as a Resource"
- 13. http://scc.virginia.gov/comm/reports/2016\_veur.pdf
- 14. APCo fell from 3rd place to 14th place during the same time
- 15. APCo fell from 2nd place to 11th place during the same time
- Rider B Altavista, Hopewell, and Southampton Power Stations; Rider BW — Brunswick County Power Station; Rider GV — Greensville Power Station; Rider R — Bear Garden Generating Station; Rider S — Virginia City Hybrid Energy Center; Rider US-2 — Scott Solar, Whitehouse Solar Project and Woodland Solar Center; Rider W — Warren County Power Station
- 17. Among the peer group states, we documented the net incremental energy efficiency savings represented as a percentage of annual retail sales for each state for the years 2006 to 2015. This analysis was conducted using the data from ACEEE's annual "State Energy Efficiency Scorecard." Data from ACEEE is not available for 2012. Energy efficiency savings were calculated directly from data contained in EIA Form 861 for this year. The analysis calculated Dominion's annual net incremental energy efficiency savings represented as a percentage of annual retail sales using the same Form 861 data

- www.scc.virginia.gov/SCC-INTERNET/comm/reports/ 2015\_veur.pdf
- 19. http://aceee.org/state-policy/scorecard
- 20. https://lis.virginia.gov/cgi-bin/legp604. exe?151+ful+SB1349ER
- www.vchr.vt.edu/wp-content/uploads/2015/02/Housing-VA-LIHTC-Study-Full-Report.pdf
- http://energyefficiencyforall.org/sites/default/files/ Lifting%20the%20High%20Energy%20Burden 0.pdf
- 23. While Dominion appears to offer several residential time of use rates in addition to Schedule 1 Basic Residential Rate, evidence from recent IRP cases suggests that Schedule 1 is by far the most common residential rate.
- 24. Dominion Virginia Power Filed Tariff. 2016. www.dom.com/ library/domcom/pdfs/virginia-power/rates/shared/entirefiled-tariff.pdf?la=en
- Bill Calculator for 2016 Dominion VA: https://www.dom.com/ library/domcom/documents/xls/bill-calculator-worksheetva.xlsx?la=en
- 26. Commonwealth of Virginia State Corporation Commission (SCC) 2012. Assessing the Rates and Terms and Conditions of Incumbent Electric Utilities in the Commonwealth Pursuant to the Seventh Enactment Clause of Chapter 933 (SB 1416) of the 2007 Acts Assembly. https://www.scc.virginia.gov/comm/ reports/2012\_IEU\_Ch933.pdf
- 27. It is now being built by Microsoft, Dominion, and the Commonwealth of Virginia.
- www.dmme.virginia.gov/DE/LinkDocuments/GEC/ StaffReportStateCorporationCommission\_2007\_ ReportOn\_10percentElectricityConservationGoal.pdf
- 29. http://database.aceee.org/state/virginia



## OUR MISSION

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A REPORT BY THE Virginia Poverty Law Center

#### VIRGINIA POVERTY LAW CENTER

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