Formula rate profit guarantees and how they threaten Illinois' energy goals

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After roughly a decade of formula ratemaking in Illinois, a general consensus has emerged that formula rates are bad public policy. Proponents of Public Act 102-0662, the energy bill passed in September, claimed it ended formula rates. We argued the new law did not, but rather transitioned from one type of formula rate to another, maintaining harmful formula rate profit guarantees while also likely increasing profit rates. Our opposition to this policy was so strong that we opposed the overall bill, despite enthusiastic support for many policies in it.

This short paper explains what this key formula rate mechanism, an annual actual cost reconciliation, does, how it does it, and how it threatens Illinois' energy goals. To summarize:

- **What an annual actual cost reconciliation does:** The policy supercharges the traditional utility incentive to spend money to make money and shifts business risk from the utility and its shareholders to customers, making higher bills and lower service quality more likely.
- **How an annual actual cost reconciliation works:** Like any business, in any given year, if a utility under traditional regulation has lower than expected revenue, higher than expected costs, or both, it won't meet its desired profit levels or could even suffer a loss. With an annual actual cost reconciliation, these outcomes are effectively impossible: if a utility spends more than anticipated, it makes more money.[1] It does this through an annual accounting process that charges consumers extra for costs, investments and profits of the prior year not initially included in rates, through a surcharge on future bills. This is the mechanism that guarantees utility profits and shifts risks to customers.
- **How an annual actual cost reconciliation threatens Illinois' energy goals:**

[1] The Illinois Commerce Commission must approve investments after the fact but since 2013 regulators have not disallowed a single investment from ComEd while the company has spent at unprecedented levels.

    - The law's performance incentives are overwhelmed by its profit guarantee incentives. While the new law includes new and potentially higher performance incentives intended to align utility incentives with public interest outcomes, those incentives will be overwhelmed by the guaranteed profit incentive provided by the annual cost reconciliation. In a time of significant anticipated changes to and investments in the electrical grid, an annual actual cost reconciliation weakens and counteracts performance and efficiency incentives and other regulatory tools intended to achieve the best outcomes for the public at the lowest cost.
    - Guaranteed profit increases will crowd out other, more valuable programs. By supercharging the incentive to spend money to make money, utilities will be more likely to "gold-plate." This is harmful in itself but also threatens other priorities: as customers continue to pay more and more for utility profits this can mean less resources for other programs. We estimate ComEd profits will account for roughly one third of the distribution rates customers will pay in 2024 and that the share will continue to increase. As bills rise in the coming years, the political pressure to lower or slow the increase in utility bills will, for legal and political reasons, more likely constrain valuable programs, like in renewable energy, energy efficiency, and building and transportation electrification, which are included in utility bills, than cut unnecessary utility profits.

The power industry is transforming rapidly, incredibly rapidly on the utility timescale. These changes are critical to avoid the worst impacts of climate change. With significant, rapid change comes heightened uncertainty and risk.

Illinois has experience with the inherent risks in the utility enterprise: high cost and poor service quality. One prominent example stems from ComEd's problematic nuclear power plant construction.

- High cost: In the 1980s, ComEd's ill-considered and mismanaged construction of six nuclear power plants, beset by cost overruns and delays, led to Illinois consumers paying some of the highest utility bills in the country.
- Poor service quality: In an attempt to keep costs down, ComEd then cut corners in maintaining its electricity distribution system, leading to decades of reliability problems.

Another example is the current Peoples Gas pipe replacement project, which is driving bills to unaffordable levels for a significant portion of Chicago gas customers while failing to achieve its purported public safety purpose.[2]

Even if significant investment in the distribution grid is necessary, ComEd's nuclear power plant construction, the Peoples Gas pipe replacement program, and ComEd's aggressive spending under formula rates present vivid examples of how utility investments can lead to record profits and high bills but not valuable service for customers.

[2] See our in depth report, Tragedy of Errors, at https://illinoispirg.org/feature/ilp/tragedy-errors

No outcome is certain, but the inclusion of guaranteed profits through an annual actual cost reconciliation in Public Act 102-0662 makes it less likely that Illinois will achieve its energy goals, or do so at the lowest cost.

What an annual actual cost reconciliation does

Utility regulation aims to, among other things, mitigate and fairly balance risk between customers and shareholders in order to better achieve universal, affordable, reliable, environmentally sustainable service. One of the primary ways it does so is by managing how a utility earns its revenues and profits through the setting of rates the utility may charge its captive customers.

Under traditional "cost of service" rate setting,[3] a utility is allowed to recover all reasonable operating expenses as well as, over time, all prudently incurred capital investments along with a return, or profit, based on the remaining value of those investments. The amount a utility aims to recover through ratepayers' bills is known as the "revenue requirement."

The company makes a profit on the value of the assets it uses to provide service, or its "rate base." Therefore, the company makes more profits as it invests faster than its overall rate of depreciation. This incentive structure attempts to align the private profit motive of utility managers and shareholders with the public interest of a healthy grid that can provide safe, reliable service. One of the risks of an incentive structure wherein the utility spends money to make money is that it incentivizes utility managers to over-invest in, or "gold-plate," the system. Because utilities' revenues are collected through customer rates, overinvestment leads directly to customers overpaying.

The traditional regulatory toolbox includes numerous mechanism to limit gold-plating and balance risk:

- utilities can only recover costs for investments that are providing service - the utility is on the hook for failed investments;
- regulators only approve recovery of investments if they deem them "reasonable" or "prudent," that is, after an investment is made the utility might not be able to charge customers for it;
- setting a revenue requirement at a representative level without a reconciliation creates an opportunity for, but not guarantee of, profit; and
- because rates are only reset periodically and time passes before a utility can begin recovering for a new investment, it will not profit off the full, original amount of each investment.

[3] For an extended discussion of the incentive structure of traditional ratemaking, see our December 2020 report on the 2011 Energy Infrastructure Modernization Act, Guaranteed Profits, Broken Promises.

For the purposes of this discussion, the last two are the primary mechanisms upended by formula rate profit guarantees.[4]

The third mechanism seeks to reward utilities for operating efficiently and controlling costs, and to punish them for not doing so. Static authorized rates, which may last for years, are set using the estimates of the revenue the company needs to collect combined with the weather and usage forecasts for a normal year. Actual customer usage will vary year to year — the company makes more in a hot summer and less in a cool one, for example. These effects should balance out in the long run, but in this system, the company is not guaranteed that all of the expected revenue will arrive in any given year. This provides utility managers the incentive to remain efficient and keeps costs in line since revenue is uncertain. This static revenue goal also creates headroom for the company to earn additional profits from higher than expected efficiencies or increased sales.

The fourth mechanism effectively guarantees that the utility will not profit off of every dollar it invests, as some depreciation will occur before the investment is approved by regulators and factored into rate base.

The overall effect of this incentive structure, balancing the incentives to invest with the incentives to do so in a prudent manner, is to create a reasonable budget for utility managers to operate within. The annual actual cost reconciliations blows this budget — and balance of incentives — up.

Annual cost reconciliations, in practice, move the operational and capital spending risks from the company's shareholders to its customers. In doing so, it supercharges the utility incentive to spend money to make money. This harm is inherent in its design which guarantees profits and encourages large utility capital programs. This is why ComEd sold the 2011 law as necessary to provide "certainty" to facilitate increased spending on reliability improvements and smart grid technology.

How an annual actual cost reconciliation works

Revenue uncertainty is a reality for most businesses, and is especially problematic when large upfront investments are necessary to provide service. While utilities' rates are regulated, their revenue is traditionally uncertain because a portion of their rates are collected through

[4] As we describe in our report, formula rates as constructed in the 2011 EIMA, while not changing the legal standards, also limit the second tool in practice. The new law is better in this regard, but still places some limitations on application of the legal standards, and, because of the cost reconciliation, is still properly understood as a formula rate. It's difficult to overstate the difference between the traditional model, which determines a "test year" that sets representative levels of costs to operate the business, compared to an annual process that seeks to determine and approve all actual costs. The Commission is structured to do the former, and cannot reasonably perform the latter. In the former, the Commission sets a reasonable level of costs necessary to run that utility. In the latter, the Commission is expected to "ok" the costs of every investment and expense individually and in aggregate amount and if it disagrees it must have specific reasons for not allowing the utility to collect for costs the company has already spent.

volumetric ($/kWh) charges on customer bills. Revenue may increase or decrease for a variety of reasons related to overall usage, because some bills may not be paid on time or at all, and because the number of customers can change during any year. There are different ways to reduce uncertainty in traditional utility rates, some of which are beneficial to customers and the utility alike.

Revenue Guarantee

Many states, including Illinois, have opted to reduce utility revenue uncertainty through a policy mechanism known as decoupling or a volume balancing adjustment (VBA). This mechanism is solely concerned with a utility's revenue and not the cost to provide service. Therefore, the mechanism works to meet a pre-set level of revenue, but does not retroactively reset that level of revenue.

In addition to stabilizing revenue through, for example, removing weather effects, another primary objective of adopting a VBA is to reduce the utility's incentive to keep volume, i.e. power consumption, high. Reducing unnecessary energy consumption is critical for numerous cost, pollution, and climate reasons. Therefore, policy makers don't want utilities to have an incentive to resist conservation and energy efficiency, an incentive they have if their revenue and profits go up as consumption increases.

To illustrate how a VBA can work, let's say a utility's annual revenue requirement is $100 million, but at the end of the year, the utility's actual revenue was $95 million. With a VBA, the utility would add a surcharge to the following year's bills, to recoup the $5 million difference (plus interest). Likewise if the utility overcollects, say its revenue was $105 million, it would issue a $5 million credit (plus interest) on future bills.

The accounting process to determine the difference between projected and actual revenue, and to determine the following year's surcharge or credit, is known as a reconciliation. Sometimes the VBA ensures revenue comes within a range of the revenue requirement, rather than ensuring an exact match. Often, the charge or credit comes with a carrying cost, or interest. Properly constructed, a VBA can be beneficial both to the utility and its customers.

Profit Guarantee

Formula rates are crucially different from a VBA: VBA's guarantee revenues but not profits, because costs could still be higher or lower than expected. **Formula rates guarantee profits by performing not only a revenue reconciliation, but a cost reconciliation as well.**

Recall that the revenue requirement is built from projections of operating costs and investments, along with a profit margin applied to the remaining value of those investments. This sets a static target annual revenue based on representative costs before a year starts. While a VBA ensures

that a utility earns that predetermined revenue requirement, or close to it, an annual cost reconciliation, ***recalculates*** the revenue requirement, by reconciling the difference between projected and actual costs, and adding a carrying cost, or interest. The difference between the actual revenue collected and the recalculated requirement, the reconciliation amount, is then added as a charge, or credit, on future bills.

Returning to the illustrative example above, if the original revenue requirement, based on projected costs, was $100 million, but the new revenue requirement, based on actual costs, was $105 million, the utility would be set to recover the additional $5 million (plus interest) on future bills. If the utility's revenue from that year was $95 million, it would stand to collect an additional $10 million (plus interest) on future bills through the reconciliation.

With an annual cost reconciliation, if operating costs are up 10%, no problem, that extra 10% will be paid for by consumers later, with interest. When a normal business, or even a utility under traditional regulation, wastes money, it suffers lower profits or perhaps even losses. A utility with an actual cost reconciliation suffers no consequence and the public foots the bill. The risks associated with inefficient operation have been shifted from shareholders to ratepayers.

While the new law contains a cap on the amount of cost overages that can be reconciled, the cap is high and full of so many loopholes such that it fails to be a meaningful consumer protection, as we critique in detail in our June report, Formula rates are dead, long live guaranteed profits, and discuss further below.

Finally, by performing the cost reconciliation annually, the fourth mechanism articulated above, "regulatory lag," is all but eliminated, and utilities are ensured to collect and profit off the full value of all investments.

The implications of the profit guarantee are more troubling when it comes to utility capital spending, since that drives profits and incentives. Under traditional regulation, a utility's incentive to spend money to make money is balanced by the incentives described above: it may have to wait years to see its capital spending reflected in rate base, and as such will not profit off the full amount of the original investments; it may see some capital spending disallowed (rejected) by the regulators; and it has no guarantee that it will realize those larger potential profits if costs are higher, or revenue lower, than expected.[5]

With formula rates, these guardrails are partially or completely removed, *supercharging* the utility incentive to spend money to make money.

[5] Further, under traditional ratemaking, regulators approve a representative level of costs, i.e., the types of costs and at roughly what level, for the company. Profits are set at a reasonable level based on a prudent level of spending. With an annual cost reconciliation, a regulator has to say why a specific investment shouldn't have been made in a specific year. This helps explain how ComEd has made over $6 billion in investments under formula rates without a single dollar disallowed.

This harm is not speculative. It is exactly what we have experienced with ComEd under formula rates. ComEd sold formula rates to the Illinois General Assembly as necessary to add $2.6 billion to its rate base over 10 years compared to a baseline that would have added profits slowly over that time. The company did not only increase its investments by that amount; rather, it has added significantly more: when its 2021 formula rate update is approved, ComEd will have added $6.8 billion, *more than doubling its rate base*, from $6.2 billion in 2012 to $13 billion in 2022. Exelon has told investors it plans ComEd's rate base to reach $16.6 billion by 2024 (including regulatory assets).[6] If ComEd achieves this rate base in 2024, it will have grown its investment base 13% annually on average between 2011 and 2024.

The ratemaking process in the new law is an improvement over the current formula rate in several ways, most notably through integrated grid planning, but also a grid audit, potentially improved performance metrics, and setting the company's revenue requirements through a multi-year planning process. These regulatory tools could mean that the company won't be able to grow its profits at such a blistering pace going forward. The annual reconciliation, the formula rate profit guarantee, however, critically counteracts and undermines these regulatory tools.

How an annual actual cost reconciliation threatens Illinois' energy goals

The law's performance incentives are overwhelmed by its profit guarantee

Proponents of the new law circulated legislative analysis claiming that the new law:

> "**Ends the Formula Rate** so that utilities are no longer rewarded for spending more on infrastructure and instead are compensated for meeting metrics in the following categories: reliability, reducing peak demand, supplier diversity, affordability, integration of distributed energy resources, and customer service."

This statement is inaccurate in multiple ways. The inaccuracies highlight one of the critical problems with the new law's ratemaking structure: it gets utility incentives wrong when it is critical that we get them right.

First, the statement is inaccurate because the new law does not end the current formula rate. As we outline in our June report, the new law actually extends portions of the current formula rate by ensuring up to two additional annual actual cost reconciliations past the current law's sunset date. The new law does not otherwise change the sunset date for the current formula rate, which was already set for December 31, 2022. Thus, the only change the new law makes to the current formula rate is to incrementally extend the reconciliation profit guarantee until new rates are set.

[6] Exelon Corporation, Earnings Conference Call, Fourth Quarter 2020, February 24, 2021, slide 36

Second, and more importantly, as we have outlined, the inclusion of an annual actual cost reconciliation means the new ratemaking structure is best understood as a formula rate, if a differently-constructed formula rate than the current one. This is not our conclusion alone. As an outside expert wrote in a slide presentation to a national association of utility consumer advocates this summer:

- MD and DC have recently approved "multiyear rate plans" that are really formula rates due to "reconciliation mechanisms"
- IL is on the verge of doing the same thing.[7]

The third way the statement is inaccurate is in saying that utilities are "no longer rewarded for spending more on infrastructure." As the law plainly states,

> The Commission's determination of the electric utility's actual revenue requirement for the applicable calendar year shall be based on: (A) the Commission-approved used and useful, prudent and reasonable actual costs for the applicable year, which shall be determined pursuant to the following criteria: (i) The overall level of actual costs incurred during the calendar year [...].[8]

That is, under the new law, Illinois is still operating under a "cost of service" model wherein a utility's revenue is determined by its costs, such that it makes money by spending money. The utility's compensation is still almost entirely based on its spending. The new performance metrics will have only a modest effect on utility revenues.

Performance metrics themselves are not new to Illinois ratemaking; they are a feature of the current formula ratemaking structure. In fact, three of the six categories in the new law are already performance metrics for the utility in formula rates: reliability, customer service and supplier diversity.[9] The performance metrics in the new law, just like the performance metrics in the current formula rate, *adjust* utility compensation; they do not form the basis of its compensation.

Putting dollar amounts to these concepts helps demonstrate how traditional spending incentives will continue to outweigh performance incentives under the new law.

Under the new law, the performance metrics have the potential to incrementally increase or decrease the utility's ROE, or profit rate, by between 20 to 60 basis points, or 0.20 to 0.60

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[7] Mark Newton Lowry, "The PBR Challenge for US Consumer Advocates," presented to the National Association of State Utility Consumer Advocates, June 15, 2021, slide 10.
[8] Public Act 102-0662, starting in 16-108.18(f)(6) and ending in subsection (A)(i), 850-851.
[9] The current formula rate metrics do not potentially "compensate" the utility, only potentially penalize. While the new metrics do add an upside (potentially giving ComEd even more money) the downside impact between the two sets of metrics is actually very similar and it could be the case that the impact is smaller with the new metrics than the current ones. The total impact of the metrics in the new law starts at 40 basis points with an option for the regulators to increase or decrease it 20 basis points (discussed more below). The current penalties are capped at 38 basis points. See 16-108.5(f-5)

percentage points. It is reasonable to expect, based on Commission precedent, that under the new law's ratemaking structure ComEd's ROE will be above 9%,[10] or 900 basis points.[11] Using that figure as an example, the performance incentives have the potential to increase or decrease ComEd's 900 basis point ROE by 20 to 60 basis points. That ROE, when incorporated into the utility's weighted average cost of capital, also called an overall Rate of Return (ROR), is applied to the utility's rate base to determine its profit amount.

Using the same scenario we used in our June analysis illustrates how this may play out. In 2024, the year the new ratemaking structure will go into effect, Exelon has told its investors it expects ComEd's rate base (including regulatory assets) to be $16.6 billion.[12] Because the new ratemaking scheme returns the ROE determination to the Commission, rather than tying the ROE to current, low interest rates as current law does, it is reasonable to expect ComEd's ROE, and therefore ROR, will increase. If ComEd is awarded the same ROE the Commission recently awarded Ameren Illinois Gas (9.67%), its overall ROR will increase by 117 basis points, from 5.72% to 6.89%.[13]

Applied to ComEd's $16.6 billion rate base, a 6.89% ROR means **$1.14 billion in guaranteed profits** in 2024. This profit level will increase as ComEd continues to invest at rates higher than depreciation, as it is expected to.

The 117 basis points ROR increase alone accounts for **$194 million more in profits** than if it stayed at its current ROE (to be clear, this $194 million is included within the $1.14 billion figure).

For indicative purposes, the performance metrics, on the other hand, have the potential to i**ncrease or decrease ComEd's profits in that year by $15.3 to $45.9 million**.[14]

Clearly, under this system, ComEd is not "compensated for meeting metrics" rather than for spending more on infrastructure. In 2024, the metrics could impact ComEd's profit by between

[10] ComEd's last ROE that was not set by the formula, set in ICC Docket No. 10-0467, was 10.5%. However, the two most recent ROEs that the Commission has set were 9.67% for Ameren Gas in Docket No. 20-0308 and 9.73% for Nicor Gas in ICC Docket No. 18-1775. In ICC Docket 21-0098, the proposed order includes a 9.75% ROE for Nicor Gas. Both utilities enjoy a similar type of automatic recovery of actual costs through Rider QIP which reduces risk and adds "certainty" but the Commission does not seem to have in any way considered that effect on their cost recovery when determining their ROE's.
[11] To be clear, we are not saying that this is an appropriate ROE for ComEd, just that it is a reasonably likely outcome. Given ComEd's decreased risk from the multi-year planning and ratemaking, cost reconciliation, and potential ROE boost from performance incentives, there is a clear case for a lower ROE.
[12] Exelon Corporation, Earnings Conference Call, Fourth Quarter 2020, February 24, 2021, slide 36.
[13] This calculation does not include changes the new law makes to ComEd's equity share in calculating its WACC, further increasing its ROR.
[14] The performance metrics impact the ROE applied to the delivery rate base, not including regulatory assets. On the other hand, the increase in ROE due to ICC determination will apply to the regulatory assets.

1% to 4%; the impact compared to revenue is even smaller. The impact of the law's effective bump in ComEd's ROE will increase ComEd's profits by roughly four times the maximum performance metric reward.

While the ROE jump is illuminating, after the first year of the new rate structure, it will represent a (highly profitable) "new normal" applied to a rate base that ComEd has announced it plans to continue to grow after 2024. Another way of putting the performance incentives in perspective is by comparing them to the potential increase in spending and profits allowed under the annual actual cost reconciliation's 5% "cap."

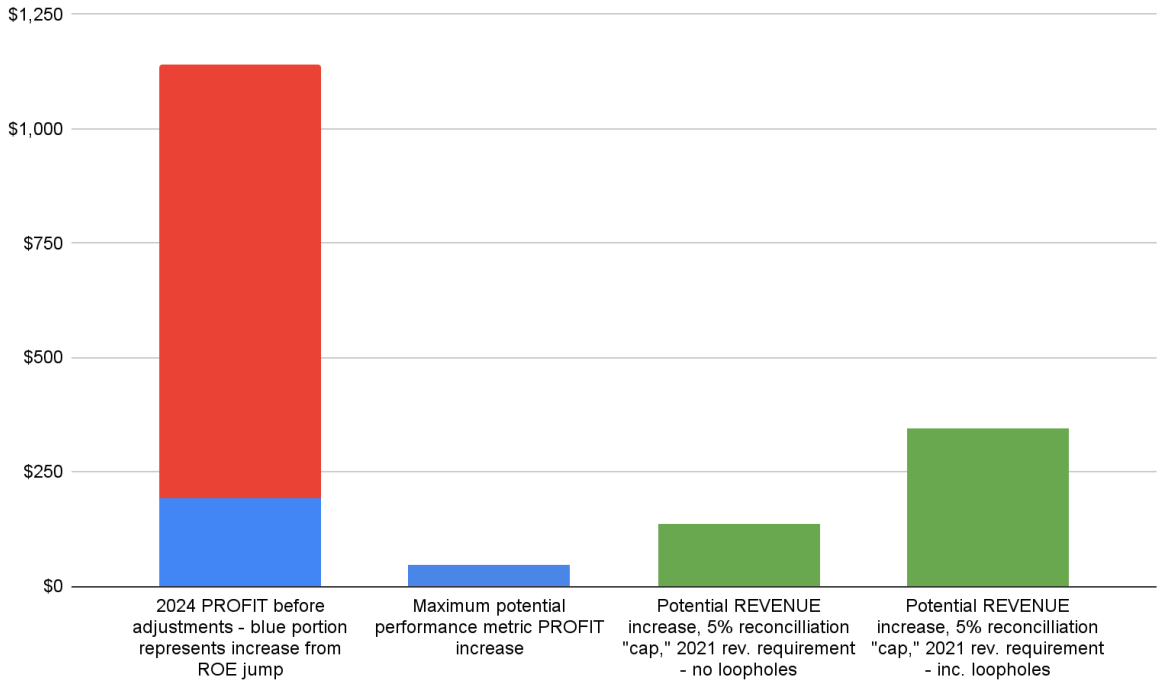
For this example, we will use ComEd's current (2021) revenue requirement, such that we can more accurately estimate the impact of the 5% cap's loopholes.[15] Before accounting for those loopholes, a 5% increase to the 2021 revenue requirement would produce **$136 million in additional revenue**, roughly three times the maximum increase possible from performance metrics in our 2024 scenario.[16]

Adding the loopholes in the 5% cap would allow 2021 **revenue to increase by roughly $344 million**, roughly seven and a half times the maximum increase possible from performance metrics in our 2024 scenario.[17]

To be clear, these figures represent potential increases in *revenue*, not all of which would be increases in *profits*, as in our other comparisons. Depending on the costs that could drive a $344 increase in revenue allowed under the cap, the company certainly could earn as much or more profits than are possible from the performance metrics.

The potential $46 million reward for hitting performance metrics is nothing to sneeze at, but in the context of over a billion dollars in profits, an almost $200 million profit jump through an ROE increase, and the potential to add another $344 million in revenue consisting of ample profits through the reconciliation, it's hard to argue that that $46 million provides a powerful incentive to ComEd, or that it outweighs, much less replaces, the incentive to spend money to make money.

[15] The 5% cap for 2024 revenue would be increased by almost another $10 milion from the roughly $194 million jump in profits from the ROE increase alone.
[16] Assuming a roughly $3 billion revenue requirement in 2024, a 5% increase would be more than three times the maximum performance reward.
[17] Calculation of this figure includes loopholes for storms, weather and other unforeseen expenses, investment for new business and facility relocations, and "year end rate base" accounting treatment, but not amortization of costs into regulatory assets, which could increase the allowable increase to revenue.



As we have shown, the performance incentives, which may be good in their own right and produce better outcomes than would occur without them, are nonetheless overwhelmed by ComEd's ongoing incentive to spend money to make money, an incentive supercharged by the unnecessary inclusion of an annual actual cost reconciliation in the new law's ratemaking structure. This makes it less likely that we will successfully and efficiently transform our electrical grid to meet the needs of the 100% renewable future, or do so in a cost effective manner.

Guaranteed profits increases will crowd out other, more valuable programs

In its cost analysis for AARP Illinois, Chapman Energy Strategies concluded that increases in ComEd profits would be the single largest cost driver of the new law. In ten years, the average single family ComEd customer will pay an additional $14.73 monthly as a result of the new law. Of that, over $9 would go to increased ComEd profits alone.

Despite significant increases in delivery rates since the onset of formula rates, ComEd bills have remained relatively flat, as ComEd is quick to point out, because the price of power decreased over the same period, meaning lower power supply rates counteracted higher power delivery rates. Those lower power prices were driven by historically low gas prices, a trend which can not last forever, as we are experiencing right now. While renewable energy development promises to lower and stabilize per kilowatt supply prices and help overall household energy budgets in the long term, there is no doubt that utility bills are set to rise over the next decade, which could lead to political pressure to lower bills or at least slow their growth. Given the political power of ComEd and other utilities, relatively undiminished even after a historic scandal, that pressure is

more likely to result in lower investments in renewable energy or other valuable climate change mitigation efforts than in lower unnecessary utility profits.

Even if that scenario does not unfold, it's clear Illinois is poised to burden residents and businesses and waste scarce and valuable resources on unnecessary utility profits. We are already doing so with rates based on the unreasonable amount of rate base ComEd has added under the Energy Infrastructure Modernization Act's formula rates. ComEd more than doubled its rate base in under a decade, setting a new harmful baseline that will continue to grow. Utility profits serve the public good when they align utility incentives with public interest outcomes. Instead, the new energy law continues to misalign utility incentives while showering utility shareholders with unnecessary profits. That is not a recipe for achieving our energy goals.