

Exhibit 2.3

Response to Statements in the Rebuttal Testimony of Mr. Hanser

Introduction

This exhibit includes responses to rebuttal testimony of Mr. Philip Q. Hanser. Mr. Hanser was hired by ComEd to take an advocacy position in favor of ComEd's SFV structure and his testimony generally addresses theoretical points that are not specific to ComEd. Many of his points come from the notion that as soon as the distribution system is built, there is surplus capacity. This notion means the short-term marginal or variable cost for distribution is near zero in some instances. Mr. Hanser would set prices on the basis of this short-run marginal cost and then collect the difference between marginal cost and the revenue requirement from fixed account charges. That idea arbitrary and discriminatory, and marginal cost pricing is not the policy of the Illinois commission. Because that argument would likely not be taken seriously, most of his comments are at the margins of the central issues in this case. Accordingly, I have included my detailed responses to Mr. Hanser in this separate exhibit.

I have organized this exhibit by first repeating Mr. Hanser's statements, then discussing why I disagree with his assertions. I have provided line number references to Mr. Hanser's rebuttal testimony for the statement each response addresses.

Unlike other consultants that ComEd hired for the case, such as CA consulting, Mr. Hanser's testimony takes an advocacy position. The fact that ComEd sees it necessary to hire an outside consultant to testify against the interests of low use/low income ratepayers and in favor of high use/high income ratepayers demonstrates just how strongly the company wants to maintain high customer charges. It is clear that ComEd is not at all indifferent to cost of service and rate design issues, when it comes to increasing fixed charges for low-income/low-use consumers.

(1) Mr. Hanser's Incorrect Interpretation of the City/CUB Tiered Charges Proposal

ComEd Ex. 10.0, ComEd Ex. 10.0, Lines 15-17; 53-56:

I respond to their respective proposals to eliminate ComEd's current ...
Straight Fixed Variable ("SFV") rate design for the residential sector. I
disagree with these proposals. Despite the fact that most of ComEd's cost of

service results from fixed costs, Messrs. Bodmer and Rubin seek to reduce the level of revenues recovered from the fixed charge and, instead, have revenues recovered mostly through a variable, volumetric charge.

Response:

As a highly qualified consultant, I assume that Although Mr. Hanser had access to my testimony, it appears he did not read and review the exhibits. My testimony did not suggest elimination of the SFV structure; rather it suggested an alternative implementation of the SFV concept that avoids discriminatory impacts on low use/low income consumers. The City/CUB proposal did not contain a higher volumetric charge, other than for a warranted transfer of costs within the residential class. Indeed, the multi-family volumetric or energy charge is lower in my proposal than in ComEd's presentation.

Because of ComEd's vigorous advocacy with respect to "fixed" cost and revenue stability, the City/CUB proposal accommodates that concern, while eliminating unfair rates by applying ComEd's monthly fixed charge on a tiered basis. Applying the tiered customer charge based upon specific usage levels avoids the current discrimination against low-use/low-income ratepayers. Applying the tiered charge using weather normalized moving average of usage assures revenue stability. This graduated customer charge is analogous to the cable company that charges a higher fixed rate when you buy more services such as HBO rather than basic service. My rebuttal testimony in response to Mr. Tenorio describes places in my direct testimony where I described my proposal.

(2) Mr. Hanser's Incorrect Statement Implying that Formula Rates are Not a Large Change and that the Commission Did not Ask for Investigation of the SFV Impacts on Low Use Consumers

ComEd Ex. 10.0, Lines 21-24:

First, there have been no changes in the past two years that would support reversing the Commission's approval of an SFV rate design for ComEd's residential customers. Neither of these witnesses provides a compelling reason to abandon this recently approved residential rate design. Second, these proposals run contrary to sound regulatory policy, which encourages the recovery of fixed costs through fixed charges.

Response:

Mr. Hanser's comments completely ignore the formula rates that were authorized by the State Legislature and chosen by ComEd. The formula rates completely eliminate the primary utility motive behind SFV - revenue stability. Further, Mr. Hanser's suggestion that the SFV was unconditionally approved completely ignores a key directive of the 10-0467 order, where the Commission ordered a study of establishing a new class so that disproportionate impacts could be avoided for low use consumers.

(3) Mr. Hanser's Reference to the Bonbright's 1961 Book is Inappropriate and Does Not Reflect Energy Efficiency Objectives Mandated by the State Legislature

ComEd Ex. 10.0, Lines 81-85; 90-109:

In 1961, James C. Bonbright coalesced their thinking in his canon, Principles of Public Utility Rates³, which was reissued in its second edition in 1988.... While Mr. Bonbright's "Principles" have been in place for more than five decades, they continue to be relevant today and serve as the foundation for reasonable rate design.

Response:

The table below demonstrates that the City/CUB proposal conforms more to the Bonbright principles than ComEd's proposal; particularly when the principles are updated for energy efficiency objectives mandated by the State Legislature. The table lists each principle and then evaluates whether the City/CUB proposal or the full SFV proposed by ComEd in the 10-0467 case better conforms to the principles. Out of ten principles, the City/CUB proposal performs better on eight, with ComEd winning on revenue stability and with one tie.

BONBRIGHT PRINCIPLE	COMEd's DKT. 10-0467 SFV PROPOSAL	CITY MODIFIED SFV WITH TIERED FIXED CHARGES	PLAN THAT CONFORMS BETTER TO PRINCIPLE
1. Effectiveness in yielding total revenue requirements under the fair-return standard without any socially undesirable expansion of the rate base or socially undesirable level of product quality and safety	ComEd's proposal to collect more than \$30 through the customer charge is socially undesirable, because of its negative effects on affordability of service and on energy efficiency. These effects exacerbate service availability problems and the environmental effects of electricity production.	The City proposal includes cost-based rates that strongly encourage energy efficiency and conservation, enhances service affordability for low use/low income ratepayers.	City/CUB
2. Revenue stability and predictability, with a minimum of unexpected changes that are seriously adverse to utility companies	ComEd's proposal is favorable to the utility company and would result in increased stability and predictability that is important to ComEd and its parent company.	Through the combination of ComEd's formula rates and a tiered charges based on weather normalized rolling average usage, revenue stability is maintained	ComEd
3. Stability and predictability of the rates themselves, with a minimum of unexpected changes that are seriously adverse to utility customers and that are intended to provide historical continuity	Implementation of ComEd's SFV proposal would mean an increase in customer charges from \$2.94 before the 2008 case to \$30. Such change does not provide stability or predictability, as it reflects a dramatic change in rate design, not costs. No consultant can prove that this is rate continuity.	While rates for high users would increase, rates for low-users would be more consistent with historic levels and cost causation.	City/CUB
4. Static efficiency, i.e., discouraging wasteful use of electricity in the aggregate as well as by time of use	By setting the customer charge at \$30 and a low marginal energy charge the SFV results in reduced benefits from efficiency and conservation. Marginal prices are below the long-run marginal (demand) cost that ComEd acknowledges is driven by demand.	Because reduced customer charges encourage energy conservation, wasteful energy use is discouraged instead of encouraged.	City
5. Reflect all present and future private and social costs in the provision of electricity (i.e., the internalization of all externalities)	For the reasons stated regarding Principle 4, under ComEd's SFV proposal externalities are clearly not incorporated in the marginal energy price.	The City proposal also includes a low energy rate, but tiered fixed charges mean a higher marginal price that better reflects externalities of increased usage.	City/CUB

BONBRIGHT PRINCIPLE	COMEd's DKT. 10-0467 SFV PROPOSAL	CITY MODIFIED SFV WITH TIERED FIXED CHARGES	PLAN THAT CONFORMS BETTER TO PRINCIPLE
6. Fairness in the allocation of costs among customers	ComEd's SFV proposal disproportionately collects the difference between ComEd's short-term marginal costs and its revenue requirement from low use/low income customers. That is patently unfair.	The City proposal more accurately reflects the costs driven by density, age, and undergrounding of facilities, which are lower for low-use ratepayers.	City/CUB
7. Avoidance of undue discrimination in rate relationships so as to be, if possible, compensatory (free of subsidies)	By collecting the difference between short-run marginal cost and revenue requirements through the customer charge, the ComEd SFV subsidizes high use/high income consumers.	Through tiering the customer charge, the City proposal avoids the subsidy to high use consumers.	City/CUB
8. Dynamic efficiency in promoting innovation and responding to changing demand-supply patterns	Mr. Hanser supports the SFV rate design in part because it discourages solar power. The SFV rate design recovers so much from fixed charges that it is very inflexible in responding to demand-supply patterns affected by demand efficiency and supply alternatives.	The City proposed rate design encourages investment in demand side solutions and supply alternatives such as solar power panels. Because the tier boundaries and patterns can be changed, the proposed rate design has the flexibility to accommodate new public policies and consumer choices.	City/CUB
9. Simplicity, certainty, convenience of payment, economy in collection, understandability, public acceptability, and feasibility of application	The ComEd proposal is simple and ComEd collects money with absolute certainty, but public acceptability of \$30 customer charge would be very low.	The City proposal is slightly more complex for ComEd's billing system (though no more than tiered energy and demand charges), but it would be far better from the public acceptability perspective.	Tie

BONBRIGHT PRINCIPLE	COMEd's DKT. 10-0467 SFV PROPOSAL	CITY MODIFIED SFV WITH TIERED FIXED CHARGES	PLAN THAT CONFORMS BETTER TO PRINCIPLE
10. Freedom from controversies as to proper interpretation	ComEd's SFV is highly controversial and even company witnesses do not seem to have a consistent story. For example Hanser emphasizes demand costs as fixed, while ComEd witnesses admit that demand causes cost but argue that demand and usage are not correlated.	Because the proposal reflects the higher costs of increased usage, while maintaining ComEd's preference for fixed charge recovery of distribution (demand) costs, it should meet the needs of both sides. The City proposal would promote energy conservation in an unambiguous manner	City/CUB

(4) Mr. Hanser's Assertion that SFV is Cost Based Either Assumes No Correlation between Usage and Demand or Uses Short-Run Marginal Cost as the Basis for Measuring Cost

ComEd Ex. 10.0, Lines 125-131:

The updated Bonbright principles are: economic efficiency, equity, revenue adequacy and stability, bill stability and customer choice. The core of these principles continues the notion that charges should reflect cost causation. Accordingly, a two-part tariff where the fixed charge reflects those costs of providing distribution services that do not vary with usage and the variable charge reflects those costs that vary with usage is the appropriate design for residential customers who do not have a demand meter. Such a rate design is often referred to as a SFV tariff.

Response:

In responding to this statement, I assume that ComEd's 80/20 proposal from its last rate design case is the theoretical base for Mr. Hanser's SFV discussion. That implies that 80% of distribution costs are priced on the basis of ratepayer accounts and 20% are priced on the basis of usage. In the current case ComEd has insisted on numerous occasions that distribution costs are caused by peak demand (something it has apparently not explained to Mr. Hanser).

Therefore, for the SFV proposal from the last case, to reflect cost causation, 80% of usage would have to be driven by random factors unrelated to demand. If the number were 100%, that SFV concept would imply that a large mansion has the same peak demand as a studio apartment that is part of a duplex, since 100% of the (with 80% the conclusion would be nearly the same). In fact, as demonstrated in City/CUB exhibit 2.1, the correlation between usage and demand is just about perfect. This implies that if ComEd's position that demand causes distribution costs is correct, then the SFV proposal cannot be cost based.

Rebutting both ComEd and Mr. Hanser together is difficult because they apparently disagree about cost causation. Mr. Hanser wants to use short-run marginal cost, under the assumption there is surplus distribution capacity. This measurement of cost may be valid from an economist's perspective, but it leaves open the critical ratemaking issue, the question of how the difference between the revenue requirement computed on the basis of average (embedded) cost and the short-run marginal cost should be collected. Mr. Hanser wants to collect this revenue through Ramsey pricing, that is, high prices where inelasticity is greatest. For ComEd, that means high fixed charges, without paying attention to who caused the costs being recovered. This fixed charges collection approach results in highly discriminatory rates. Further, that approach was firmly rejected even when the Illinois Commerce Commission applied marginal cost principles in the 1980's and the 1990's. (Instead, ComEd applied an equal proportion of marginal cost approach.) ComEd and Mr. Hanser cannot have it both ways. Either costs are caused by demand, as ComEd asserts, or they are caused by the existence of a consumer account, as Mr. Hanser maintains.

(5) Mr. Hanser's Implication that SFV is Consistent with Applying Demand Charges to AMI Meters is False

ComEd Ex. 10.0, Lines 143-145; 159-162:

Ideally, with AMI, some of the costs that are otherwise collected through the fixed charge would instead be collected through the demand charge.

This Commission approved SFV approach is a more reasonable and cost-based rate design for distribution services for customers who do not have demand meters.

Response:

Mr. Hanser's suggestion that somehow the SFV is comparable to setting rates on the basis of demand for consumers with AMI meters is wrong and has not been demonstrated in any way. As

usage is all but perfectly correlated with demand in the residential class, setting rates on the basis of demand would be very similar to setting charges on the basis of usage. If rates were changed from the SFV to demand measured with an AMI meter, a large mansion that is subsidized under the SFV would suddenly pay much higher charges with an AMI meter, reflecting the much higher level of demand relative to the studio apartment that is part of a duplex. In setting rates on the basis of demand, revenue stability would decrease compared to usage based charges. Rate continuity would also be violated. Clearly, if ComEd (or the Commission) wants to have an orderly transition to demand charges enabled by AMI meters, they should immediately get rid of the SFV rate design. Finally, Mr. Hanser apparently also does not understand that SFV was not applied to non-space heat multi-family ratepayers.

If AMI meters are implemented, they can be beneficial because of the shared energy savings they could produce and/or benefits to the distribution system. These benefits are related to energy and demand, differences in cost between standard meters and AMI meters must be allocated and priced on the basis of demand or energy and not on the number of accounts.

(6) Mr. Hanser's Assertion that SFV is a Good Thing, Because It Harms the Economics of Supply Alternatives and Energy Efficiency Measures, Is Contrary to State Policy

ComEd Ex. 10.0, Lines 170-145:

[The SFV] lets customers and retail electric providers focus on the best way to provide electric supply service by allowing the structure of the distribution service tariff to be neutral with respect to those choices. In essence, under SFV, the volumetric charge represents only the costs of energy consumption, so the customer's energy market price signal is clear and undistorted by charges unrelated to it. As well, the utility will be indifferent as to choice of supplier, that is, the utility will be competitively neutral.

Acceptance and support for services and products that serve to reduce kilowatt-hour consumption, such as energy efficiency services and distributed generation, are more likely to be provided by a distribution utility if its revenues do not depend on the extent of customer usage. If the distribution revenue was entirely recovered through a volumetric charge, then the distribution utility may be averse to offering energy efficiency programs because they would impede its revenue recovery. SFV pricing removes this disincentive. Similarly, to the extent that future state policy is

designed to encourage the adoption of clean sources of behind-the-meter distributed generation like rooftop solar, SFV pricing addresses concerns about the utility's ability to recover the costs of its investments in the distribution grid by making it financially indifferent to such proposals.

Response:

From a consumer perspective, the economics of energy efficiency (EE) programs and supply alternatives are worse with an SFV rate design. Consumers using conservation or energy efficiency measures will not receive distribution cost savings on the amount of energy saved. In the extreme version of SFV, there is no energy charge for distribution and there are no distribution savings at all to consumers from energy efficiency. Mr. Hanser's testimony makes one wonder whether ComEd has advocated for the SFV in order to discourage the adoption of distributed generation (DG) such as roof-top solar. Any concern about possible stranded costs completely unnecessary, because the formula rates allow ComEd to completely collect its revenue requirement even after a decline in sales.

Mr. Hanser's statements also directly conflict with ComEd's repeated position that distribution costs are caused by demand. How can Mr. Hanser assert that reduced demand with implementation of AMI meters should result in lower bills for a consumer and then, a couple of paragraphs later state that it is bad to have lower bills from reduced demand caused by energy efficiency? If a consumer has an AMI meter and a solar panel on his roof, his bill would be reduced if the distribution charge is imposed on the basis of demand. Mr. Hanser's testimony is inconsistent and illogical on this score, as it is in many other places.

(7) Mr. Hanser's Concern About "Over-Incentivizing" Energy Efficiency Must Not Be a Policy Consideration for the Commission and it Represents Nothing More than the Classic Problem of Marginal versus Average Cost

ComEd Ex. 10.0, Lines 190-199) (emphasis added):

Further, allocating a larger proportion of fixed costs to the volumetric charge over-incentivizes energy efficiency. This can induce customers to invest more than can be economically justified if they had been provided with proper price signals, but also can potentially lead to efforts to "game the system." Since the capability to make capital investments is generally proportional to customer income, it can result in the undesirable situation of high-use

customers having trivial bills compared to lower income customers with similar usage but placing a similar burden on the distribution system.

Response:

On a practical level, Mr. Hanser's obsession with over-incentivizing energy efficiency is out of touch with concerns around the world to promote lower use of electricity and directives of the State Legislature in Illinois. The theoretical question raised by Mr. Hanser's surprising comment is the issue of distribution avoided cost. Mr. Hanser's comment presumes that the avoided cost of distribution cost is zero with the further implication that ComEd will never have to replace any distribution equipment and that there will never be pressure on the distribution system. Apparently, ComEd did not explain to Mr. Hanser the massive investments in distribution equipment that were caused by load growth and the famous ComEd outages. For example, after the Wrigleyville outage and the Loop outage ComEd flew equipment in 747 jets to assure that increases in load would not cause future catastrophic outages. ComEd seems to understand that avoided cost is measured as a function of demand and that the avoided cost is not zero.

Mr. Hanser's comments again reveal a dramatic inconsistency between setting rates on the basis of demand (particularly with AMI meters) or a usage proxy and the SFV approach. If a home has demand charges set on the basis of demand measurements from an AMI meter, the home will receive savings from the amount of reduced demand when solar panels are installed, as explained above. By contrast, with full implementation of the SFV concept, where energy charges are close to zero, there would be no distribution savings. ComEd and Mr. Hanser need to clarify whether they are advocating a cost causation policy (requiring recovery of demand costs on a demand or demand-proxy basis) or an SFV approach that discards cost causation for revenue stability, constrained EE and DG investment, and marginal cost pricing.

If ComEd and Mr. Hanser were truly worried about over-incentivizing energy efficiency, they could propose that people who install solar panels should pay a surcharge to cover the lost revenue. Maybe ComEd and Mr. Hanser could also then implement a special surcharge that would apply to anybody who turns off their lights!

(8) Mr. Hanser's Discussion about Fixed Cost Represents Nothing More than the Classic Problem of Marginal versus Average Cost

ComEd Ex. 10.0, Lines 201-207:

Each customer imposes costs on the system that are essentially fixed. Under purely volumetric tariffs, customers with lower usage would not be paying their fair share of the cost of creating and operating the distribution system. Instead, higher use customers would be covering the deficit and paying more than their fair share. An SFV tariff that more closely matches fixed and variable costs with fixed and variable charges reduces this inequity so that all customers will pay their fair share of the costs associated with the delivery of electricity through the distribution system.

Response:

Mr. Hanser's statement begins an economics argument about fixed and variable costs by adopting a utility's self serving default definition of "fixed" costs -- anything not directly related to consumption is fixed, even if it admittedly is caused by and varies with a different variable measure (demand). Mr. Hanser simply advocates setting rates on the basis of short-run marginal cost. His position that marginal cost should be the basis for setting rates is inconsistent with Commission policy and statements made by ComEd.

Pretending for a moment that setting prices according to short-term marginal cost were Commission policy, Mr. Hanser's comments about equity are not correct. If short-term marginal cost is the basis for setting rates, the difference between the revenue requirement and marginal cost must be addressed. Mr. Hanser's arguments simply amount to collecting the difference in a completely inequitable manner without paying any attention at all to equity and cost causation.

When costs are fixed because of surplus capacity, short-term marginal costs are often less than the revenue requirement. If rates are set according to short-term cost then the rates could be almost zero. The equity question arises when the difference between the revenue requirement and short-term cost needs to be collected from ratepayers. The only equitable way to recover the difference between short-term marginal cost and the revenue requirement is to examine cost causation. According to ComEd, this implies that rates would be set on the basis of demand, not on the basis of the existence of an account. Mr. Hanser's assertion that it is equitable to have the same rate for a studio apartment in a duplex as a mansion rejects cost causation and does not require elaborate economic theory as a response.

(9) Mr. Hanser's Comments about Rate Continuity Ignore the Dramatic increase in Customer Charges from \$2.94 to \$30 and the Commission's Explicit Directive to Study Impacts on Low Use Consumers

ComEd Ex. 10.0, Lines 215-221:

It is also necessary to consider the consequences of abruptly canceling the SFV rate, which would cause sudden and unexpected bill increases for many customers. The Commission approved the SFV structure of ComEd's residential rates a little more than two years ago. Nothing has changed since that time that would merit a wholesale revisiting of the structure of ComEd's charges to residential customers. From a regulatory policy perspective, such changes should be made infrequently and only after careful consideration of the implications of the change.

Response:

Mr. Hanser's statement about rate continuity applies equally to the radical changes that ComEd suddenly suggested in the rate design last case. Coming out of the rate freeze period, the multi-family customer charge was below \$3.00 per month. In the 10-0467 Docket, ComEd suggested a customer charge after implementation of the SFV that would have been more than \$30 per month. For low use ratepayers, I have already demonstrated that the customer charge represents most of their bill and that ComEd's rate design policy has resulted in rate increases of 53%, even though the full SFV has not been implemented. With the 80/20 SFV ComEd's rates for low use consumers would have increased by 78%. For ComEd to worry about sudden and abrupt rate changes now is unexplained hypocrisy.

Mr. Hanser's statement about Commission policy completely ignores the Commission's directive respecting low use consumers and the Commission's discussion during the oral argument phase of the last case. The City/CUB proposal -- customer charges that are driven by weather normalized rolling average usage for the prior twelve months -- complies with the Commission's order, and addresses additional comments from the Commission. At the same time, the proposal addresses ComEd concerns, such as revenue variability and collecting revenues through a fixed charge. The only difference is that, under the City/CUB proposal, the equity impacts on low use consumers are addressed.

Finally, Mr. Hanser's discussion about rate continuity ignores that fact that ComEd did not apply SFV to the multi-family subclass. The energy charge is 30% higher for multi-family consumers demonstrating that ComEd did not apply the SFV to that class. Therefore, removing the SFV would have no effect on a large segment of the residential class.

(10) Mr. Hanser's Comparison to ComEd with Other Utility Companies Ignores the Diversity in Housing Stock in the Chicago Area and the Amount By Which ComEd's Rates are Out of Line with Other Companies.

ComEd Ex. 10.0, Lines 233-221; 242-245; 261-262:

I also would observe that the Commission has authorized SFV rate design for other Illinois distribution companies. In particular, Nicor Gas Company ("Nicor Gas") and the Ameren Illinois gas utilities ("Ameren") each have Commission-approved SFV rate designs that have been in place since 2009 and 2008, respectively.

Rochester Gas and Electric ("RG&E") has a fixed charge of \$21.38/month in addition to a bill issuance charge of \$0.95/month. The New York Public Service Commission ("NYPSC") approved RG&E's SFV rate design in a 1996 order.

...relatively high fixed charges has not caused the NY PSC to reverse its sentiment. NYPSC has also approved Con Edison's \$15.76 fixed charge.

Response:

I have addressed my responses to Mr. Hanser's statements regarding natural gas utility companies in my direct testimony and I will not repeat that testimony here.

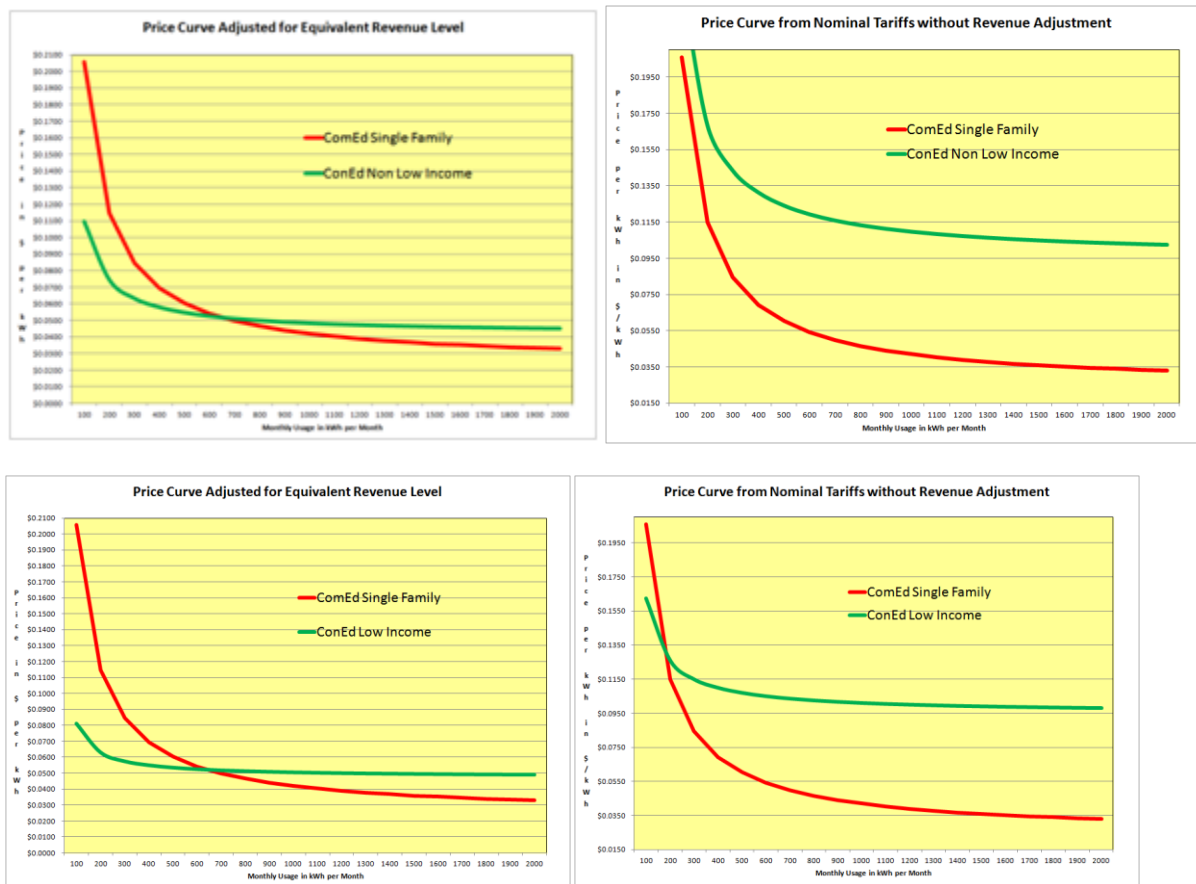
Mr. Hanser does not seem to recognize the effect of diversity in housing stock when evaluating the discriminatory aspects of the rate design. Towns in central and southern Illinois simply do not have the range in dwelling size that exists in the Chicago area.

Mr. Hanser's comments about a 1996 rate order in Rochester New York are telling because they demonstrate how far one has to look to find anything that resembles ComEd's SFV objectives. The population characteristics of this town in upstate New York cannot be compared to the Chicago area. Further, even Rochester's customer charge is far below ComEd's proposal of \$30 per month in the 10-0467 Docket.

Finally, Mr. Hanser's comparison with Consolidated Edison is very misleading. The absolute level of ConEd's rates are more than double the level of ComEd's rates, and ConEd has a separate low income rate that applies to many ratepayers. ConEd's non low-income account charge of \$15.76 is 1.75 times the first block energy charge of 8.99 cents per kWh (ConEd has

an inverted energy charge in the summer). This compares with a ratio of 7.65 for ComEd (the account charge of \$18.21 divided by the energy charge of 2.38). ConEd also has a low-income customer charge of \$7.26, which yields a ratio of .807. To suggest that ConEd has an account charge near the level of ComEd is false. In City/CUB Exhibit 2.2, rates are adjusted in a proportional manner to yield equivalent revenues to the ComEd single family revenues. For ConEd, the rates produce a level of revenues 2.26 times the rates of ComEd. When the non-low income customer charge of \$15.76 is divided by 2.26, the equivalent charge is \$6.98 per month. When a similar calculation is made for the low-income customer charge, the equivalent charge to the ComEd revenue level is \$3.62 per month.

To compare ComEd with other utilities I have created a price curve for each utility company. I have done this on a raw basis, without adjusting for different levels of revenues, as well as after adjusting for prices that produce different revenue levels. The graphs below show that ComEd's price curve is far steeper than the price curve of ConEd whether non-low income rates are used or the low-income customer charges are applied. Details of my calculations are presented in City/CUB Exhibit 2.2.



(11) Mr. Hanser's Assertion that Distribution Equipment for New Housing Developments Has Nothing to Do with the Size of Load or Usage Directly Contradicts Many Statements Made by ComEd

ComEd Ex. 10.0, Lines 265-275:

Suppose a new housing development is being built in ComEd's service territory. Before the homes can be inhabited, ComEd must extend its distribution system out to the development, including a network of sub-stations, transformers, feeders, and circuits, connect each home to the grid through service drops, and install a meter at each home, among many other activities. All of this constitutes investments that must be made before a single kilowatt-hour of electricity is consumed by any resident - an investment that certainly goes beyond a meter and postage stamps as Mr. Bodmer claims. So, it is unreasonable to subject the recovery of these fixed costs to the uncertainty associated with energy consumption patterns. It is also unreasonable for customers to pay for these costs through volumetric rates, when the costs themselves are not driven by energy consumption. That is the basic rationale for recovering fixed costs through fixed charges.

Response:

ComEd has insisted on many occasions in this case that the need for distribution equipment is caused by load. Mr. Hanser's statements imply that the need for distribution equipment is driven by the existence of a ratepayer account, directly contradicting the Company. One would expect that in reviewing Mr. Hanser's testimony, somebody at ComEd would have explained their position.

To demonstrate problems with Mr. Hanser's theory that demand has nothing to do with distribution cost, consider a situation where houses are built as single family homes and then become duplexes. There would be the same equipment as if the houses were single family dwellings, but the number of accounts will be doubled. Mr. Hanser further seems to assume that if a development consists of big mansions that are spread out and have underground wires that the cost per account will be the same as apartment buildings that are divided into many different accounts. Mr. Hanser's position that distribution equipment is caused by the existence of an account, no matter what the size of the account, is unsupported and incorrect.

(12) Contrary to Mr. Hanser's Statements, the Split of a Single Family Home into a Duplex or an Apartment Building into Smaller Units is an Effective Way to Define Costs Caused by the Simple Presence of a Customer Account

ComEd Ex. 10.0, Lines 276-291:

Mr. Bodmer provides the "house being split into duplexes" example to counter this reasoning. However, Mr. Bodmer's example is specious and overlooks that such splits are the exception and not the rule when it comes to adding new customers and accounts. The installation of roof top solar panels provides another example of the rationale for recovering fixed costs through fixed charges. Consider a customer who installs rooftop solar panels that completely offsets her total energy consumption over the course of the month. Under a rate design with no fixed charge component, this customer will pay nothing for delivery service on her electricity bill while still benefiting from using ComEd's distribution system as backup when the sun is not shining and the solar panels are generating no electricity. In this circumstance, ComEd essentially acts as a free battery for the customer, a cost that will be borne by other ratepayers under Mr. Bodmer's suggested rate design. A fixed charge that represents the fixed costs associated with this customer continuing to connect to the ComEd's distribution system would address this inequity. To the extent that there is a policy goal of subsidizing investments in technologies like rooftop solar panels, this should be done outside of the rate design.

Response:

Mr. Hanser, an economist, apparently has the same utility definition and philosophy as ComEd. If a cost cannot be directly related to usage, it must, by default, be related to a ratepayer account. My proposition, which Mr. Hanser does not seem to understand, is that a ratepayer account costs should be defined affirmatively just like usage and demand costs, and there may be left-over costs that cannot easily fit into the usage, demand or account buckets. Even though ComEd cannot seem to understand this point, it has been recognized by the Commission. For example, the Commission recognized that there is no billing determinant for uncollectible account costs caused by people who do not pay their bills. The Commission applied the same logic further by recognizing that indirect costs related to uncollectible accounts should have the same treatment. The Commission should then recognize that a multitude of other costs (many listed in my testimony) that ComEd labels "customer related" are all not caused merely by the existence of a customer account. Similarly, there are many

other costs (e.g., costs related to the eChannel strategy, voice response technologies, e-services, and social media as well as transformation of the customer service interface model through the identification, development, and application of technology to enhance customer experience_) that do not neatly fall into the customer account, usage or demand buckets.

Mr. Hanser's comments about solar power in the context of defining a ratepayer account and cost causation is surprising and does not come close to the central question of defining cost causation. Remarkably, Mr. Hanser persistently confuses stranded investment from solar panels with the fundamental definition of a ratepayer account. Worse, Mr. Hanser's words imply that stranded investment should be recovered from low income and low use consumers. Of course, stranded investment charges are not in fact necessary given ComEd's formula rates and if they were imposed, the transition charges should be paid by high income and high use consumers.

(13) ComEd's Computation of 51% of Costs Being Related to a Ratepayer Account is Unreasonable Compared to the City Computation of \$1.00 per Month

ComEd Ex. 10.0, Lines 294-307:

My view of the appropriate tariff for a distribution company is very different from the concept espoused by Mr. Bodmer. He takes too narrow a definition of fixed costs and, as a result, arrives at the \$1.00/month fixed charge in his alternative rate proposal. That number is so low as to not even have a trace of reasonableness. He believes the only relevant per-account costs are those associated with installing the meter and sending out bills. He excludes all other distribution costs as not being specific to accounts and recommends that they be viewed as a public goods charge and collected through charges that are proportional to customer usage and/or bills. Mr. Bodmer's design would promote inefficient investment by residential customers' in their energy use and would increase cross-subsidies between small and large consumers of electricity within a given delivery class. Also, Mr. Bodmer has failed to consider the issue of bill stability for customers, which I address above in my discussion of customer bill stability (a Bonbright ratemaking principle).

Response:

The customer charge of \$1.00 per month reflects the lower cost of low use consumers that is documented in my direct testimony. Mr. Hanser does not appear to understand the definition of an account from a cost causation perspective. If a home is split into a duplex, no costs for ComEd increase except the cost of the meter and the cost of getting out a bill. As explained below (and confirmed by ComEd), distribution costs are caused by demand, and not by the existence of a consumer account. Further, as explained in City/CUB Exhibit 1.1, there is no meaningful level of demand that can be explained by the existence of a consumer account.

The real question is whether charges not related to distribution and service lines for multi-family ratepayers should be 52% of their total bill (this number excludes distribution costs and the costs of service lines). Mr. Hanser accepts this number without question, demonstrating an ingrained belief that it is reasonable to charge consumers 52% of the entire cost of delivery service simply to measure electricity and send out a bill.

(14) Mr. Hanser's Flawed Analogies to Sam's Club, Costco, Parking Garage, Taxi, Cable Company and Health Club Charges Are Not Comparable to ComEd's Customer Charge**ComEd Ex. 10.0, Lines 310-322:**

Grocery stores and services do not provide good analogies for electric distribution services, which are very capital intensive. Even in retailing, though, we find examples that contradict Mr. Bodmer's theory. Big box retailers such as Costco and Sam's Club utilize the exact type of pricing structure that he has characterized as "silly." A combination of fixed and per-unit charges are prevalent in many other industries as well. Examples include parking garages (higher price in first hour with lower price in each subsequent hour), gym memberships (up-front cost to join plus monthly membership fee), taxi charges (minimum fee plus charge per mile), cable TV packages (basic cable package plus additional premium/on-demand options) and even ice cream cones (scoop of ice cream plus optional cost of additional toppings). To imply that a combination of fixed and variable charges is an unreasonable pricing structure because it does not apply in other industries is as unconvincing as it is inaccurate.

Response:

Mr. Hanser's examples have nothing at all in common with the manner in which ComEd attempts to collect costs that cannot be classified as account related or usage related as part of its customer charge. The examples Mr. Hanser uses are related to marketing strategies in competitive markets, not to default recovery (through a fixed charge) of costs that cannot be neatly classified as account related, demand related or usage related for a monopoly electric distribution company.

Instead of Mr. Hanser's flawed analogies, the Commission should consider all the products that do not have fixed charge pre-conditions to service (like ComEd's customer charge) but do have similar types of costs, including costs related to creating websites, customer complaints, marketing strategy, new software systems and the like. Look around you. You did not pay a customer charge for the clothes you wear, the furniture in the room, your car, your gasoline, your electronics, your business supplies, your shoes, your food at a restaurant, and innumerable other items. Mr. Hanser had to look hard to find his examples and they are not analogous to the ComEd customer charges. In particular, even if accepted as comparable, those charges do not come anywhere near explaining the 52% charge – excluding any distribution cost at all – imposed on the multi-family non-space heat class.

Specific problems with Mr. Hanser's examples include:

- *Costco and Sam's Club*: The fixed payments are loyalty payments that are part of a marketing strategy and can be cancelled at any time. If you pay a fee to Sam's Club you will likely go to that store instead of another store. This type of pricing strategy to encourage you to be loyal to a store has nothing in common with ComEd's desire, as a monopoly electric distribution company, to collect costs that I labeled public goods, through up-front payments.
- *Parking Garages and Taxies*: As with ComEd, taxies, airplanes, parking garages and others would like to price according to load factor. When these businesses have idle capacity, it is costly to them. A taxi driver would rather drive around with a passenger than look for fares. ComEd is able to account for load factor through its cost allocation, where classes that have more usage relative to their peak pay a lower rate. Similarly, when a taxi has less idle time its costs go down. Pricing according to load factor already exists in the electricity distribution industry, and Mr. Hanser's examples for taxies and parking garages are analogous to this aspect of rate design - not to the customer charge. The taxi and parking fee examples have nothing to do with collecting costs of marketing costs through an up-front charge.

- *Gym Memberships*: Gym memberships are optional payments that are part of a marketing strategy like the loyalty payments for Sam's club. If you make a payment to the gym you will then probably not shop around for other gyms. Mr. Hanser confuses strategies that are designed to increase market share with attempts to collect general costs from a fixed charge that is not optional for ratepayers of a monopoly electric distribution company.
- *Cable TV*: Mr. Hanser's use of cable TV is an interesting example, because it is directly comparable to what City/CUB is proposing. You pay a higher fixed charge to the cable company when you use more services. The pricing is tiered so that you can buy packages with more services and, only then must the customer pay a higher fixed charge. If you are only interested in the basic cable, you pay a lower charge. This structure is similar to the tiered account charge proposal from my direct testimony.

(15) Mr. Hanser's Response to the Level of ComEd's Customer Charge Demonstrates that ComEd has an Extremely High Customer Charge and a Highly Regressive Rate Design

ComEd Ex. 10.0, Lines 340-322:

Here are some counter examples. RG&E, as noted earlier, is an investor-owned utility with a total fixed charge of over \$22 per month. There are also many municipal utilities and cooperatives in the U.S. with fixed charges that are as high as, or higher than, ComEd's, including: Nebraska Public Power District (\$19/month with a flat volumetric rate in the summer and a declining block rate in the winter), Great Lakes Energy Cooperative (\$18.28/month with an additional charge for customers in certain geographic locations), and Oregon Trail Electric Cooperative (\$18/month). Indeed, The National Rural Electric Cooperative Association manual Rate Strategies for 21st Century Challenges states, "[c]ooperatives should consider moving, to the extent practicable, toward recovering costs in the way they are incurred. Under such an approach, fixed costs and margins would be recovered through fixed charges and variable costs through variable charges."

Response:

The most interesting part of this testimony is to see just how far Mr. Hanser must look to find companies with customer charges that have levels anywhere near the levels of ComEd – Great

Lakes Energy Cooperative. When ComEd's strategy in its last case, increasing the customer charge to \$30, is compared to even these companies, one can see just how radical the Company's proposal is.

Moreover, rural cooperatives and municipal companies do not generally have formula rates analogous to the risk-reducing scheme that was approved by the State Legislature. The financial need for excessive customer charges is not present when formula rates are in place. Finally, rural electric companies have much less housing diversity than a city like Chicago and the discriminatory aspects of high customer charges on low use and low income consumers are less pronounced.

(16) The Proposed Surcharge by Arizona Public Service for Solar Installations Mr. Hanser References Should Not Be Applied in Illinois

ComEd Ex. 10.0, Lines 369-371:

Arizona Public Service is also proposing to revise its tariffs to customers who install rooftop solar by imposing additional charges on them to recover the fixed cost of investing and maintaining the grid.

Response:

Mr. Hanser apparently agrees with explicitly charging a ratepayer for making investments in alternative supply resources or energy efficiency. According to this logic, utilities should also enact a surcharge on customers who buy a more efficient light bulb. If stranded investment arises from energy efficiency programs, the best way to deal with the issue is not to penalize people who made the investments as these investments have positive externalities. Instead, high use consumers who create negative externalities should pay the stranded investment charge and the utility company should put a line item on the bill.

(17) Mr. Hanser's Reference to Webinars, Conferences and Industry Groups as Support for the SFV Concept is a Reason for the Commission to Reject ComEd's Proposal

ComEd Ex. 10.0, Lines 374-375:

In webinars and conferences of industry groups, there is a strong undercurrent of utilities wanting to move to an SFV type rate design.

Response:

This statement just illustrates that consultants, like the Brattle Group, are pushing utility companies to advocate for SFV, which I have demonstrated has negative consequences on energy efficiency and is regressive. It would be a better use of their time for these consultants to suggest measures that objectively measure cost of service and that encourage energy efficiency. Instead, they come up with discriminatory schemes designed to lower utility risk and increase the stock value of their client utility companies.

(18) Mr. Hanser's Critique of My Comparative Sample for All-In Tariffs is Mistaken

ComEd Ex. 10.0, Lines 378-382:

Bodmer Table 2 and Bodmer Figure 5 lump together tariffs for distribution services with tariffs for all-in electricity supply services. In particular, his column indicating whether the utility is providing inclining block rates is seriously misplaced because for most, if not all, of the utilities cited that rate design applies to the supply of electricity and not to its delivery.

Response:

Mr. Hanser is wrong on this point. Most utility companies serving the largest metropolitan areas in the country have separate delivery service tariffs. In City/CUB Exhibit 2.2 I show the utility companies that have integrated prices and those that have separate delivery tariffs. In my workpapers I show the assumptions I make regarding generation prices so that the rate design of delivery charges is isolated.

(19) Mr. Hanser's Critique of my Suggested \$1.00 Account Charge for the Lowest Use Consumers Ignores Increases in Account Charges for Higher Use Tiers

ComEd Ex. 10.0, Lines 385-387:

I find it noteworthy that 20 of the 23 fixed charges presented in Bodmer Figure 5 are higher than the \$1.00/month fixed charge that Mr. Bodmer has proposed in his preferred alternative rate design.

Response:

Again Mr. Hanser ignores the fact that I am suggesting tiered customer charges. On an average basis across the customer population, customer charges would be high. In addition, I have no qualms about saying that the whole industry has unreasonable customer charges.

(20) Mr. Hanser Does Not Deny that Usage is Correlated with Income, and His Reference to R-Squared Statistics is Incorrect

ComEd Ex. 10.0, Lines 449-445; 448-451:

No. Mr. Bodmer uses zip code level data provided by ComEd to quantify the correlation between income and consumption. He finds that the relationship between these two variables is positive and statistically significant. However, there are two problems with the way he has characterized his analysis. First, his Figure 10 (Id. at 40:580) shows that the r-squared value of his regression is 0.61. This means that only 61 percent of the variation in average consumption by zip code can be explained by the income variable, and 39 percent is unexplained and attributable to other factors that influence usage.

Second, his analysis is limited to average consumption and income by zip code. This masks much of the customer-specific variation in usage that should be considered for the purposes of analyzing customer bills. I would suggest that he work with a load research sample and combine that with customer-specific income data before making such strong statements.

Response:

The best critique Mr. Hanser could come up with for my income/usage analysis is to state the R-squared of 60% is not high enough. First, the 60% R-squared implies a correlation coefficient of

77% meaning that 77% of the standard deviation (as contrasted with the variance) in usage is related to income. Second, when dummy variables are added for the City of Chicago and for multi-family percentage, the correlation coefficient climbs to 85%. Third, the most relevant statistic is the t-statistic. That statistic is a measure of the probability that the dependent variable usage is unexplained by the independent variable income. My analysis (City/Cub Ex. 1.0, page 39) showed that ComEd's position that income and usage are not correlated has an infinitesimally small chance of being true.

The issue is not whether income is the only variable related to usage. Other variables include family size, age, tastes in terms of climate control and so forth. The point is that there is, indeed, a strong relationship between income and usage and that the R-squared is not very relevant in assessing the relationship.

Finally, Mr. Hanser's suggestion to use load research is not practical. First, as explained in City/CUB Exhibit 2.1, there are numerous problems with ComEd's load research data. Second, income data on each separate load research ratepayer is most probably not available. Third, the sample would be much smaller than the actual population. Fourth, there is nothing at all wrong with grouping the data by zip code.

(21) Mr. Hanser's Flawed Assertion that Costs are Driven by Customer Accounts Can Be Easily Tested by ComEd

ComEd Ex. 10.0, Lines 463-473:

No. It is based on the mistaken assumption that there are diminishing returns to scale in the distribution business. In fact, distribution is one of those businesses where there are increasing returns to scale. Once the distribution grid is in place, the cost of serving a unit of electricity declines as usage goes up until capacity is reached. To the best of my knowledge, inclining block structures are not being used in most places for pricing distribution services. Furthermore, Mr. Bodmer makes an indirect reference to such rates helping to promote energy efficiency. But as discussed earlier in my testimony, that objective of energy service is best served through demand-side management programs like the ones that ComEd offers to all customers. Alternatively, those rates can be imposed on the sale of electricity. However, since the electric market in Illinois has been restructured, such rates must be offered by competitive retail electricity providers.

Response:

Mr. Hanser is again confusing the revenue requirement with marginal cost under conditions of surplus capacity. If Mr. Hanser wants to test his proposition that costs are lower for high use consumers he should ask ComEd for access to CGIS data. This data could test whether the cost per kWh or per ratepayer is greater in a high income, high use area like Wilmette or in a low income area such as Englewood. I believe Mr. Hanser and ComEd do not perform this analysis because the results would not support their theory.

(22) Objective Analysis Demonstrates that Demand and Usage are Closely Correlated, Contrary to the Vague Statement made by Mr. Hanser**ComEd Ex. 10.0, Lines 498-505; 507-517:**

...in the absence of demand metering, demand-related costs should be recovered through fixed charges. Demand-related costs are often up front investments in equipment that are not a function of monthly kWh consumption levels, and therefore their recovery should not be subject to the uncertainty that is associated with energy consumption. Distribution lines and substations are not like fuel costs - the cost of their installment cannot be avoided if customers decide to consume less energy in a given month.

While Mr. Rubin and Mr. Bodmer both claim that usage is a reasonable proxy for demand in the absence of demand metering, neither has conclusively proven this empirically. Even if energy and peak demand were found to be correlated, it still would not be appropriate to allocate all demand-driven costs into a volumetric charge. This would result in a volumetric rate increase that applies 24 hours a day, seven days a week. Such a price signal would encourage energy reductions in off-peak hours as much as it would encourage reductions during peak hours. As a result, customers might respond by reducing consumption in off-peak hours, but this would not result in a reduction in ComEd's peak-driven distribution costs. In this situation, either ComEd under-recovers its costs or other ratepayers must pick up the slack. This is the type of inefficient and inequitable outcome that

would occur if economically distorted rates - like the ones Mr. Bodmer and Mr. Rubin are proposing – were to be put in place.

Response:

In City/CUB Exhibit 2.1, I present a simple, objective analysis that demonstrates Mr. Hanser is wrong and that usage and demand are closely correlated. The Commission must make its decisions on real data rather than unsupported opinions that reflect the self-interest of ComEd. Mr. Hanser's criticism of proposed changes that consider the relationship between usage and demand in the allocation of demand-caused distribution costs is based on his assumption of the result he wants – that the rate design ComEd favors is in place. I explained in my direct testimony (page 42) that a fair rate design that recognizes cost causation and does not penalize low users could not be achieved with a single monthly charge and a single energy charge – ComEd's rate design. But that is precisely what Mr. Hanser assumes to be able to assert that energy charges that reflect demand costs correlated with usage levels would be inefficient.

Further, Mr. Hanser's unsupported implication, that demand based charges will be similar to customer charges under the SFV, is completely without supporting empirical data and wrong. Mr. Hanser also seems to be suggesting that rates should be driven by system peaks, which could imply summer/winter differentials or even setting rates on the sole basis of the summer system peak, outcomes the Commission has rejected in the past.