Indiana Utility Regulatory Commission Staff Report

Findings Related to Electric Utilities' Backup, Maintenance, and Supplemental Power Rates

"…[W]e appreciate that a well-placed cogeneration facility with well-timed maintenance outages can enhance value to both the providing customer-generator and the utility-system customers as a whole, and direct IPL to explore with existing and potential industrial customer-generators how to capture such value."

IURC Cause No. 44576 (March 16, 2016), page 77

Contents

I. Statutory Requirements

The General Assembly directed the Indiana Utility Regulatory Commission ("IURC" or "Commission") to:

(1) review the backup, maintenance, and supplemental power rates charged to private generation projects;
(2) identify the extent to which the rates are cost based, nondiscriminatory, and do not result in the subsidization of costs within or among customer classes; and
(3) report the Commission's findings to the Interim Study Committee on Energy, Utilities, and Telecommunications not later than November 1, 2018. [1]

On December 28, 2017, the Commission issued a General Administrative Order ("GAO"), GAO 2017-3, which delegated the review, identification, and reporting requirements of the statute to Commission staff and created a transparent process in which interested stakeholders were encouraged to submit information and written comments. The GAO also set up the procedures for stakeholders to submit information.

In addition to responding to the statutory directive and the GAO, this report also presents background information on both the challenges and means of accomplishing the statutory directives.

II. Executive Summary

A rate-regulated electric utility in Indiana is statutorily obligated to provide adequate retail service to each customer in its assigned service area.[2] Accordingly, it is reasonable for a customer to expect the utility to have in place a system to provide it with the electricity they need when they need it; for example, for the light to come on when the switch is flipped. In the standard relationship, the customer can only buy from that utility and, in turn, the utility has an obligation to provide for the full electricity requirements of that customer.

An electric utility generally provides services to its customers through Commission-approved tariffs. In effect, the tariffs are quasi-contractual arrangements that define, among other things, the price at which the service is to be provided. Because a utility serves a wide variety of customer types (e.g., homes, businesses, factories, etc.), it groups the customers into general categories based on their service characteristics (e.g.,

[1] Ind. Code § 8-1-2.4-4(h).
[2] Ind. Code § 8-1-2.3-4(a): As long as an electricity supplier continues to provide adequate retail service, it shall have the sole right to furnish retail electric service to each present and future consumer within the boundaries of its assigned service area and no other electricity supplier shall render or extend retail electric service within its assigned service area.

residential, commercial, industrial). The cost to serve each group (or "rate class") is then determined, and the tariff offering is established to provide the utility a reasonable opportunity to recover the cost of providing service to the rate class. Importantly, in this process, the average customer within a group in many ways represents the group as a whole and, therefore, the similarity, or homogeneity, of the group is an important consideration so that the customers within each group are treated fairly and subsidies between customers within the group are minimized. For example, Duke Energy Indiana's standard residential tariff defines the price of service for approximately 670,000 customers. The extent to which a specific customer differs from the average one will determine the extent to which they are overpaying or underpaying the actual cost to serve them.

It is the stated policy of Indiana to encourage the development of alternate energy production, cogeneration, and small hydro facilities.[3] A statutorily-required means of such encouragement is the provision of supplemental, backup, and maintenance power on a nondiscriminatory basis and at just and reasonable rates by the electric utility.[4] The provision of this service allows a customer to make a private investment in order to meet a portion of its electric service needs without having to assume the obligation of meeting its reliability expectations for their entire electric service needs.

A customer who elects to provide some of its own electricity requirements is sometimes referred to as a "partial requirements customer," as the utility only provides part of the electricity the customer requires. The topics of this review relate to how a partial requirements customer is to be provided and charged for services by the utility. The types of service covered by this study include supplemental power (the electricity service the customer normally uses to complement their own generation), as well as back-up power services needed when their own generation is not available (i.e., "back-up power" when the need is unplanned (e.g., outages) or "maintenance power" when the need is planned (e.g., planned outage for maintenance)).

A difficulty complicating the establishment of a rate class and its tariff pricing for electric services for partial requirements customers is the extent of their differences, or their heterogeneity, or at least potential heterogeneity. The size and type of customer-owned generation utilized by a partial requirements customer can vary significantly. A review of the statutes requiring utilities to provide supplemental, back-up and maintenance power services identifies several applicable generation technologies, including solar, wind, organic biomass, and cogeneration facilities, among others. The varying characteristics of these resources can impact the electric utility system differently. A tariff designed for an average customer among a group with such potential differences would seem to not lend itself well to allowing a specific customer's impact, including any value they can provide to the system, to be recognized.

[3] Ind. Code § 8-1-2.4-1.
[4] IC 8-1-2.4-4(a)(2) and IC 8-1-2.4-6(e).

An average customer-based tariff listed publically by the utility has the benefit of providing a measure of simplicity in the preliminary analysis of a full requirements customer who is contemplating a private investment into a generation facility and transitioning to being a partial requirements customer. However, that simplicity belies the complexity of justly balancing the private and public investments that comprise an efficient electric utility system. A means to address this challenge can be found in the Commission's administrative rules. Specifically, Commission rules afford either the utility or the potential partial requirements customer the right to petition the Commission for resolution.[5] This customer- and utility-specific determination provides an opportunity for specific customer-generator private investment created value to be optimally priced into the services the utility is obligated to make available.

Notwithstanding the identified challenges, the investor-owned electric utilities each offer a Commission-approved tariff to provide the statutorily-required services, and the existing Commission rules afford an opportunity for specific partial requirements customers to address perceived discrepancies based on their specific circumstances. After review, Commission staff concludes that the electric utilities are already providing cost-based, nondiscriminatory, and non-subsidizing required services subject to the ongoing oversight of the Commission. However, Commission staff notes the reduced use of demand ratchets and the development of a specific tariff for cogeneration customers could provide additional encouragement for customer private investment in generation.

III. Ratemaking Principals and Challenges

In reviewing rates and identifying the extent to which the rates are cost based, a high-level foundation of how rates are set in general may be helpful. The prices and terms of service which a utility offers its various customers are based on the cost of providing the service. The cost of providing a service requires both defining and classifying these underlying costs and allocating the costs to customers based on how the service they use aligns with the creation of the costs.

The initial step in the rate setting process is identifying the services provided by the utility that result in costs. For example, a customer creates a cost when someone stands by to answer the phone when they call in with a question, when a meter is needed to determine how much energy they consume, when a set of wires are required to get the electricity to them, when a resource must be maintained to provide electricity to them when needed, or when natural gas or coal is used to generate the energy they use. In

[5] 170 IAC 4-4.1-12: In the event an electric utility and a qualifying facility are unable to agree on matters to be determined for purchase or sale, either party may petition the commission for resolution of matters within the scope of 170 IAC 4-4.1-12 and the commission's jurisdiction.

general, these costs are put into three categories based on the functional relationship they have to a specific service: customer, demand, and energy. For the purposes of this review we will focus primarily on demand and energy. Demand refers to a customer's possible *rate of use* of electricity. Energy refers to the total amount of energy, often measured in kilowatt-hours, used over a specific period, regardless of when it was used in that period. Demand costs are, consequently, primarily related to the ability of the electric system to provide what is needed when called upon. Simplistically, this would be the wires needed to connect the customer to the energy source and the resource which stands ready to provide energy, or said another way, the capacity to meet an energy need when it arises. Energy costs are primarily related to the cost of creating the energy unit itself, in this case the kilowatt-hour. One might see this as the cost of the fuel and the process of converting that fuel into electricity.

Once the costs of a utility service are defined, they are allocated across the utility's customers in a manner that recognizes that the customer being served has a significant impact on the cost of serving them. Because a utility serves a large number of customers, for manageability's sake, it groups customers into classes which have generally similar service characteristics; essentially, residential, commercial, and industrial. The accurate allocation of these costs to the various classes will impact the extent to which a class of customers is paying its share of the utility's service cost. Any misalignment of this allocation creates what is commonly referred to as *inter-class* subsidies. Accordingly, the allocation is almost always a highly debated topic in a utility base rate case proceeding.

To summarize, each class of customers is assigned the determined cost of serving them. The next step, the rate design, relates to how customers within a class will be charged for the service they receive. For example, the rate they pay may be a minimum monthly charge, a capacity need-based charge, an energy-based charge, or some combination of these. The exercise of setting a class-specific rate design looks at a group of customers and the costs they create and puts a pricing structure in place for the utility to recover the costs from the class's customers as a whole. The similarity of customers within a rate class, their homogeneity, significantly impacts the extent to which a specific customer pays for the costs that have been assigned to them. As such, the extent to which a customer deviates from the other customers in its rate class leads to *intra-class* subsidies. Accordingly, a balance between the simplicity of a utility's tariff offerings and the desire for accurate, non-subsidizing or discriminatory rate design becomes more challenging as customers become more diversified, or stated another way, their heterogeneity increases.

The introduction of customers that are similar to other customers, except that they provide a portion of their own service requirements, adds another complicating wrinkle into rate design. The partial requirement customers—in contrast to full requirement customers—have elected to make a private investment to meet at least a measure of their service requirements so they may reduce their own costs and avoid causing a measure of costs to the utility's system.

When a customer undertakes a private investment to provide a portion of their electric service needs, it is a logical suggestion that they should be able to avoid paying the electric utility for that same service. The working of the utility tariffs reviewed indicate this occurs from a variable energy cost perspective for a small net metering facility or a large cogeneration facility. However, from the demand cost perspective, it seems straightforward to say that the utility's obligation to provide capacity is not avoided as long as the utility must stand ready to provide it. This capacity includes both the wires and system to deliver any required electricity and the generating resource to produce the required electricity. For example, a customer with a 100 MW generator that requires full replacement should it become unavailable requires the utility to have 100 MW available to serve them. If that same 100 MW customer can reduce their firm need to 60 MW when its generator is not available, it reduces the obligation of the utility by 40 MW. To the extent this reduced obligation avoids utility investment, all customers on the utility's system can see reduced cost. It seems reasonable that the cost avoided by the system in this circumstance should also be avoided by the customer who made the investment.

From a cost-based ratemaking perspective, a rate design would seem not to have subsidizing or discriminatory characteristics to the extent it allows any partial requirement customer to avoid paying costs the utility avoids, while requiring them to pay any utility costs which their private investment decision has not avoided. It is primarily through this lens that we conduct our review and identification.

IV. Review and Identification of Indiana Electric Utility Rates

The rates for review in this report are to include "supplemental or back-up power for alternate energy production facilities[6], cogeneration facilities[7], or small hydro facilities"[8] and "back up, maintenance, and supplementary power" for private generation projects.[9] [10] The Commission rules implemented pursuant to Ind. Code § 8-1-2.4 generally define supplemental power[11] as electric energy or capacity supplied by the utility which is regularly used in addition to the customer's self-generation, back up

[6] Ind. Code § 8-1-2.4-2(b). Generally any solar, wind turbine, waste management, resource recovery, refuse-derived fuel, organic waste biomass, or wood burning facility that has a capacity less than 80 MW.
[7] Ind. Code § 8-1-2.4-2(c). Generally a facility that simultaneously generates electricity and useful thermal energy at a federally determined efficiency threshold that has a capacity of less than 80 MW.
[8] Ind. Code § 8-1-2.4-4(a)(2).
[9] Ind. Code § 8-1-2.4-2(g). Generally a cogeneration facility that has a capacity of greater than 80 MW.
[10] Ind. Code § 8-1-2.4-6(e).
[11] 170 IAC 4-4.1-1(r).

power[12] as that used during an unscheduled outage of the customer's facility, and maintenance power[13] as that used during a scheduled outage.

The electric utility is statutorily required to "provide for the availability of" and "upon the request of the owner of a private generation project", "provide" these services.[14] The Commission's rules generally require this provision at a rate that does not discriminate against the facility in comparison to other similarly situated customers and does not employ a blanket assumption that an outage of qualifying facilities will occur simultaneously or at the system peak.[15] The electric utilities have each developed and submitted standard tariffs for Commission review and approval to provide for these services and, at times, have entered into special contracts with specific customers when warranted. In the event that the utility and the qualifying facility are unable to agree on these matters, the Commission rules afford either party the opportunity to petition the Commission for resolution.[16]

With this statutory and administrative setting, the Commission directed its staff to undertake an informal, open, and transparent review process with the opportunity for input from all interested stakeholders.[17] Commission staff issued a Request for Information to each of the applicable electric utilities, seeking to identify the tariffs being used to provide the requisite services under review and how such tariffs worked, the extent to which the services were being used, and the cost-of-service level documentation to support the rates of these services. Stakeholders were then invited to comment on these utility submissions, and then an additional round of comments to reply was afforded to both the utilities and stakeholders. Commission staff then provided a draft report (i.e., this draft) for stakeholder review and comments before finalizing the report.

V. Electric Utility Initial Request for Information Responses

At the outset of the review of the utility submissions, it became obvious that, while each utility offered a suite of tariffs to provide the required services, the offerings were diverse across utilities and were at times designed to serve a diverse customer base within a single utility as well. While we explore each more fully below, it is at this juncture that we highlight Northern Indiana Public Service Company's ("NIPSCO") tariff offerings as indicative of the underlying diversity of providing the required services.

[12] 170 IAC 4-4.1-1(c).
[13] 170 IAC 4-4.1-1(n).
[14] IC 8-1-2.4-4(a)(2) and IC 8-1-2.4-6(e).
[15] 170 IAC 4-4.1-5(b).
[16] 170 IAC 4-4.1-12.
[17] General Administrative Order of the Indiana Utility Regulatory Commission 2017-3.

NIPSCO offers its large industrial customers a specific complex tariff, designed through a negotiated settlement, which couples the customer's behind-the-meter generation with curtailable conditions on any replacement needs required from NIPSCO in a manner that affords an opportunity for the customers to meaningfully reduce their demand reservation costs. At the same time, NIPSCO offers a simplified tariff that effectively extends the application of a customer's base tariff to provide the suite of required services. This dual effort works to provide complexity and potential savings for a set of similarly situated customers that are highly interested in leveraging their private investment in collaboration with the utility, while also providing the required services in a simplified manner to those perhaps less motivated or with less of the characteristics to leverage, namely outage coordination or curtailable load.

The following is a high level review of the electric utility initial responses:[18]

<u>Question 1 and Question 2 of the Request for Information</u>: Please identify your suite of tariffs that provide for the provision of the identified services[19], and please explain how these tariffs work together to provide for the provision of the identified services.

Duke Energy Indiana ("Duke") states that it supplies the identified services based on the pricing and terms of the customer's underlying service tariff. Custom terms negotiated under a special contract arrangement are also an available option.

Indiana Michigan Power ("I&M") presents a series of options available to its customers, which we generalize as service provision based on the pricing and terms of the customer's underlying service option, and use of the special terms and conditions under larger customer tariffs, which can have the effect of limiting the utility's firm service obligation to provide standby or backup service, or special contract arrangements.

Indianapolis Power & Light ("IPL") provides these services in a manner that effectively applies the pricing and terms of the customer's underlying service arrangements.

NIPSCO, as mentioned earlier, offers both a simple application of the services based on the customer's underlying service tariff and a service specific complex tariff for its large industrial customers. The available service specific tariff has the effect of serving as a tool that customers can utilize to manage the costs associated with backing up their generation and purchasing replacement energy without setting new demands and demand ratchets in their basic underlying service rates. In effect, it disassociates the provision of the identified services from the customer's underlying service tariff.

[18] The Indiana Municipal Power Agency ("IMPA") submitted responses as well, however for simplicity in this report we are limiting our review to the five major investor-owned electric utilities in Indiana. The general observations in the report are not inconsistent with IMPA's response.
[19] As noted previously, the identified services include supplemental, backup, and maintenance power.

Southern Indiana Gas and Electric Company ("SIGECO" or "Vectren") offers a specific tariff to large non-residential customers. The tariff provides for a customer to choose whether the backup power is provided as firm or non-firm, with pricing set differently for each. While Vectren did not explicitly discuss the provision of the required services to customers who would not qualify for this tariff, we infer that such customers would be served under the pricing and terms of its underlying service tariff.

<u>Question 3 of the Request for Information:</u> Please provide the extent to which the identified services are being used by customers, and any available information regarding customers who considered but did not pursue them.

Duke states that the services have not been extensively requested, though it does have two customers that utilize the tariffs and services.

I&M included the full range of customers which use the identified services. It has one customer receiving the services under a special contract and one customer utilizing the special terms and conditions available under its larger customer tariffs. I&M further notes that it has one residential and six general service Cogeneration and/or Small Power Production Service tariff customers and 284 net metering tariff customers.

IPL reports no customers using its specific tariff offerings.

NIPSCO currently has six large industrial customers receiving service through its specific tariff offering.

Vectren responded that it has one customer on its specific tariff as a non-firm generation customer and that no customers have pursued the tariff without taking service.

<u>Question 4 of the Request for Information</u>: Please describe, and provide supporting cost-of-service level documentation in sufficient detail to foster a review of, the extent to which the rates for the identified services are cost-based, nondiscriminatory, and do not result in subsidization.

Duke states that the Commission has approved the applicable rate schedules and riders and determined them to be reasonable. It points out that characteristics of generation facilities can range from high load factor combined heat and power facilities to more intermittent forms of power from wind and solar. Upon review of a service request, and when unique attributes of a customer's circumstances are not reflected in the tariffs it offers, it has been willing to enter into special contracts.

I&M responded with attachments reflecting the supporting data from its most recent base rate case, IURC Cause No. 44967, regarding the rate design for backup demand charge rates and maintenance energy charge rates. It also included an attachment depicting the rate design for its cogeneration tariff backup charge.

IPL responds that the rates for these services were established in its most recent base rate case, IURC Cause No. 44576. It discusses how customers receiving backup service should be charged the fully-allocated cost based rates associated with the applicable rate class tariff because it must stand ready to provide the service. It notes that backup service customers do not pay a monthly capacity charge for their full requirements, but rather pay a demand charge and an 11-month demand ratchet that applies only for the customer's actual demand. In regards to maintenance power, a customer may be eligible for a capacity credit upon electing certain service conditions that seek to encourage off-peak period outage scheduling.

NIPSCO explains that its applicable tariff rates were approved in its most recent base rate case, IURC Cause No. 44688. It points to a specific attachment in that proceeding and explains how the rates were derived as part of the settlement agreement approved therein.

Vectren similarly presents documents from the cost of service study it provided in its most recent base rate case, IURC Cause No. 43839. It then explains how the specific rates are derived from that information or its annual Ind. Code chapter 8-1-2.4 capacity pricing filing.

A. Initial Stakeholder Comments

The Indiana Industrial Energy Consumers ("INDIEC"), Alliance for Industrial Efficiency (the "Alliance"), and Midwest Cogeneration Association ("MCA") took the opportunity to respond to the initial filings from the electric utilities, which are summarized briefly below. In appreciation of the effort committed to add value to this report, we have attached their full comments in the appendix.

INDIEC states that deployment of private energy projects is one means by which customers can mitigate the trend of rising prices and help to reduce overall costs to ratepayers by reducing the need for incremental utility investment. Accordingly, furthering the state policy to encourage such private investment is a step available to the Commission, and setting proper standby rates is a necessary component of that step. Proper rates must recognize that customers with generation present different usage patterns as compared to full requirements customers. Unlike full requirement customers, they do not impose load on the system throughout the entire year and, therefore, as a matter of cost allocation, they should only be allocated costs they actually impose on the system. INDIEC believes that nearly all the standby service tariffs submitted by the utilities fail in some respect to reflect the basic distinction between full and partial requirements customers, and the default to full service rates, the inclusion of demand ratchets, and providing maintenance power rates that do not reflect the ability of the utility and customer to coordinate outages all reflect rates that deviate from cost of service principals and discriminate. These failures create inaccurate price signals to consumers and discourage private investments that can lower utility investments for which all customers pay. While recognizing that each utility has unique characteristics, INDIEC suggests that standby rates should reflect certain best practices, so that interested customers across the state have similar opportunities to pursue the benefits that may accrue to both themselves and their fellow ratepayers.

The Alliance focused its comments on the efficiency advantages of combined heat and power (CHP) and waste heat to power (WHP) facilities and ensuring support for standby rates that foster capturing those efficiency opportunities in Indiana. It noted the sizeable up-front costs required to attain the long-term energy and economic savings and how burdensome standby rates make it more difficult to justify potential projects. Guiding principles in rates should reflect actual costs, no penalties or ratchets, customer choice as to replacement service, transparency, and fostering coordination between the utilities and customers. The Alliance noted that NIPSCO's offering embodies many of the best practices it suggests and the Commission should look to replicate these elements across the other utilities.

The MCA's primary interest is also CHP and WHP, and its members report that poorly designed standby tariffs are the number one reason otherwise economically viable projects are not built in the Midwest. MCA reports it has been working in other nearby states covering topics similar to this effort and its preliminary review indicates that NIPSCO's offering stands out as a model reflecting proportional charges and other best practices. MCA presented a comprehensive review of each of the electric utility offerings and attached a Conceptual Model Standby Rate Tariff to its comments. MCA concluded by recommending this issue should be taken up in a Legislative Summer Study Committee and the formation of a Commission-led stakeholder working group to discuss standby tariffs and practices.

B. Utility and Stakeholder Reply Comments

The Commission solicited additional comments focused on utility replies to the stakeholder submissions and any additional comments from all parties related to the appropriate use of demand ratchets.[20] We generally summarize pertinent points from

[20] Demand ratchets are a tariff mechanism that locks in all or a portion of a customer's demand history for a period of time. For example, if a customer's power demand is 10 MW's in April and the utility tariff calls for charging for no less than 60% of its peak demand for the next six months, that customer must pay for no less than 6 MWs of demand for each of those months even if its demand in those months is less than 6 MWs.

these comments while avoiding repetition, and we encourage exploration of the specific details in the appendix.

Duke stated that, while standby power is an issue to consider, it did not agree that poorly designed standby tariffs are the number one reason for the lack of CHP projects. It does not support a uniform tariff calculation but stands ready to provide custom solutions to each customer based on its generation profile and actual costs.

I&M questioned the stakeholder comments that rested on the assumption that customers with private generation projects should not be treated as though they were full requirements customers, when the fact is that all of its retail customers are full requirements customers. The obligation to stand ready to serve a customer's full load is why it is equitable to assess demand charges that reflect the customer's peak load.

IPL stresses that the fixed costs of production, transmission and distribution assets are not avoided costs if the customer remains connected to the grid and expects to use these services as needed on a standby basis. In contrast, energy costs that are avoided are not paid for unless used. IPL provided an extensive response to many of the specific stakeholder recommendations and we encourage reading the full comments in the appendix of this report.

NIPSCO responded that it is simply not feasible that any size customer be able to participate in a one-size-fits-all standby power program. It believes it has properly designed a tariff in a collaborative fashion with its affected customers and said it is important that the Commission continue to allow utilities to offer programs that meet the needs of its unique service territories and not mandate a uniform program across the state.

Vectren notes that, while CHP can help reduce costs for ratepayers by reducing demand, it can also leave other customers paying for costs already invested to serve an industrial customer that elects to construct a CHP facility.

MCA provided an apples-to-apples comparison of four of the utility tariffs. The comparison applied six scenarios and the customer costs resulting from them. The differences are substantial and MCA concludes that the driver is that the outliers don't really have standby tariffs.

INDIEC states that overpricing standby services undermines the economics of private energy projects and that this is contrary to established policy under Indiana and federal law. Demand ratchets in standby rates impose lingering demand charges for extended periods and do not fairly reflect the costs incurred by the utility to provide service and impede that which policy is supposed to promote.

SABIC Innovative Plastics, Mt. Vernon, LLC ("SABIC") is the sole customer served under Vectren's standby tariff and offered comments on, among other things, the appropriate use of demand ratchets. SABIC notes that its contract includes a demand ratchet that increases its original billing demand to match its peak usage for the duration of a three-year contract term and its detailed experience highlights the punitive nature of such mechanisms. SABIC states that Vectren's standby rates are also problematic because they were developed long before any Vectren standby customers existed and they do not reflect any actual standby customer use. SABIC's first-hand experience leads it to conclude that much work needs to be done to fulfill the legislature's expressed policy to encourage the development of alternative energy production and cogeneration facilities.

The Office of the Utility Consumer Counselor ("OUCC") noted that, while many of the specifics of a utility's standby tariffs may need to be determined in the context of a base rate case, there may be opportunities to explore generic principles for their design and to improve their transparency in advance of such a case. It suggested that informal technical meetings could help interested parties gain a better understanding of the underlying issues and the options for addressing them.

VI. Commission Staff Conclusions

As explained further below, Commission staff concludes that the electric utilities are already providing cost-based, nondiscriminatory, and non-subsidizing required services subject to the ongoing oversight of the Commission. In addition, Commission staff observes that customer investment in generation could be further encouraged by reducing the use of demand ratchets and providing tariffs specifically for cogeneration customers.

By statute, Indiana encourages the development of alternate energy production, cogeneration, and small hydro facilities[21]and does so through requiring the provision of supplemental, backup, and maintenance power on a nondiscriminatory basis and at just and reasonable rates by the electric utility.[22] This provision encourages a customer to make a private investment in order to meet a portion of its electric service needs, while the electric utility retains the obligation to meet those needs when the customer itself cannot. Understanding the cost to the electric utility of meeting this obligation and how that cost is allocated to and collected from a customer with such a facility directly impacts the extent to which the rates serve their intended purpose; namely, providing encouragement while being cost based, nondiscriminatory, and non-subsidizing.

[21] Ind. Code § 8-1-2.4-1.
[22] IC 8-1-2.4-4(a)(2) and IC 8-1-2.4-6(e).

When a customer undertakes a private investment to provide a portion of their electric service needs, it is logical that they should be able to avoid paying the electric utility for that same service. The view of what service the private investment avoids is the inflection point that creates the differing perspectives presented in the stakeholder comments. There appears to be no disagreement that when a customer's private facility generates electricity which the customer consumes, then that customer should, and does through the existing tariffs, avoid purchasing and paying the electric utility for that amount of electricity.[23] It is the extent to which capacity is avoided which forms the differing views.

It seems straightforward to say that the utility's obligation to provide capacity is not avoided as long as the utility must stand ready to provide it. This capacity includes both the wires and system to deliver any required electricity and the generating resource to produce the required electricity. A customer that continues to require the utility to stand ready to provide all its needs as a firm obligation does not inherently reduce the utility's capacity costs. An option available in some of the electric utility service tariffs provides a customer with the ability to elect to reduce the obligation of the utility to assure replacement capacity, which reduces the firmness of the utility service obligation. The tariffs reviewed reflect that a reduced charge is afforded when a reduced service firmness is required of the utility.

Notwithstanding, any customer that makes a private investment in generation may reduce its demand requirement from the system at any given time and this reduction should serve to scale its charges for capacity. We observe that, through the various workings of the tariffs reviewed, this scaling of charges occurs in varying measure. The use of daily or monthly demand based charges that apply only to the month in which they occur generate a contribution to the system's capacity cost recovery. So, in tariffs with terms such as NIPSCO's daily charge or Duke's monthly charge, a customer's capacity charge is basically only applied to the capacity called upon in the defined period and then resets to zero in the next time segment, daily or monthly.

The application of a mechanism, such as a demand ratchet, serves to carryover a previous month's demand into going forward periods and, therefore, may serve to generate a proportionately greater contribution to the system's capacity cost recovery. We see this in SIGECO's tariff where the highest capacity level once established serves to set the capacity charge going forward. Of course, scaling of the carryover, such as the 60% ratchet term applied to the capacity established in the IPL tariff, also scales the capacity cost recovery. In each case, the utility's tariff and the manner in which it assigns capacity charges to tariff customers is seeking to balance the value that customer's private investment may bring to the system and the unavoidable costs of the

[23] We also note that because the electricity draw from the system as a whole is reduced, and the system generally dispatches units on a lowest marginal cost basis to meet the required need, other customers on the system are in a better position to see reduced electricity costs.

utility servicing that customer. In this balancing act, reducing the carryover impact of capacity peak setting events can be seen as a means of applying the statutory policy statement of encouraging efficient utilization of energy resources. Accordingly, Commission staff observes that reducing the use of demand ratchets could add encouragement for customer private investment in generation.

One difficulty that complicates the provision of a standard tariff is the fact that the size and type of customer-owned generation utilized by partial requirements customers can vary significantly. Another is the difference between the customers which are located in a utility's specific territory. For example, NIPSCO serves an area with a populated class of six applicable large customers that actively sought to design a tailored tariff through settlement, while IPL presently reports zero similarly interested customers. Moreover, a review of the applicable statutes necessitating the services analyzed in this report identifies varieties of generation including solar, wind, organic biomass, and cogeneration facilities, among others. The varying characteristics of these resources and the customers looking to employ them can impact the electric utility system differently. A tariff designed for an average customer among a group with such potential heterogeneity would not seem to lend itself well to allowing a specific customer's impact, including any value they can provide to the system, to be recognized. The quote included on the title page of this report is from the Commission's order in IPL's most recent base rate case and highlights the appreciation for coordinated activity between the utility and its customers to overcome this challenge and capture opportunities for value creation. The non-utility stakeholders stressed the idea that a transparent tariff offers customers considering private investment an opportunity to advance its own internal discussions as well. As a result, Commission staff observes that the creation of a specific tariff for cogeneration customers, especially for those willing to reduce the firmness of their capacity needs, may encourage additional customer interest in private generation.

The investor-owned electric utilities each provide a standard tariff or tariff set which provides for the required services. These tariffs were approved by the Commission in each of the utilities' most recent base rate cases. The specific circumstances of each utility have therefore been considered in a holistic fashion at the time that each required service tariff was approved. The Commission's rules afford both a utility and its customers with private investment in their own generation the opportunity to bring disputed matters on the provision of required services before it for resolution.[24] Therefore, Commission staff concludes that the electric utilities are already providing cost-based, nondiscriminatory, and non-subsidizing required services subject to the ongoing oversight of the Commission.

[24] 170 IAC 4-4.1-12.