

R-09-1 – Net Metering Regulations Summary of Comments & Staff Recommendations

The commission issued the proposed net metering regulations in Order R-09-01(2).¹ The initial comment period lasted through July 13, 2009. The reply comment period was closed on July 27, 2009. Approximately 48 initial and reply comments were filed during the comment periods.

General Comments on Net Metering

Whether Net Metering Regulations should be Adopted

- The commission should adopt net metering regulations. - *Jeff Friedman (7/2/09), James Lawrence (7/6/09), Michelle Wilber (7/6/09), Nina Faust and Edgar Bailey (7/7/09), Christopher Brewton (7/9/09), Dianne Holmes (7/9/09), Peter McKay (7/10/09), Matt Gray (7/10/09), Alaska Center for the Environment (7/10/09), Alan Austerman (7/11/09), J.T. Lindholm (7/12/09), Deborah Nakada (7/12/09), Dr. Frederick Foster (7/12/09), Sherry Kimmons (7/12/09), Pat Irwin (7/12/09), Alaska Power Association (7/13/09), Interstate Renewable Energy Council (7/13/09), Peter Schneider (7/13/09), Ole Anderson (7/13/09), Michael J Van Note (7/13/09), Bill Lynch (7/13/09), Rebecca Shaffer (7/13/09), Bryan Zak (7/13/09), Melissa Aronson (7/13/09), Philip Kaluza (7/13/09), Robert Burns (7/13/09), Paulette Wellington (7/13/09), Duff Mitchell (7/13/09), Chugach Electric Association (7/13/09), Tim June (7/13/09); Kootznoowoo Incorporated*
- If we fail to adopt Net Metering Rules, we stand to lose tens of millions of federal energy dollars over the next few years from 30% tax credits to taxpayers installing renewable systems in their homes and businesses. - *Tim June (7/13/09)*
- Under any conceivable circumstance, net metering will cause more harm than good. - *Municipal Light & Power (7/13/09)*
- The proposed regulations reflect a reasonable compromise between two extremes. Many of the comments by net metering proponents simply reargue their extreme positions. The proposed regulations do not reflect APA's preferred position regarding net metering, but they reflect a reasonable compromise. Many of the comments by net metering proponents simply reargue their extreme positions. - *Alaska Power Association Reply (7/27/09)*

The Adoption of Complementary Interconnection Rules

- It is important for the commission to move forward and adopt comprehensive interconnection rules that will allow the net metering regulations to be utilized by customers. - *Interstate Renewable Energy Council (7/13/09)*
- Interconnection rules should be pursued in parallel because they will have a significant impact on the economics of implementing net metering facilities. - *Christopher Brewton (7/9/09)*

How the Net Metering Regulations should be Structured

- Net metering may not work for all Alaskan communities but should work well for the larger cities. - *Jeff Friedman (7/2/09), Michelle Wilber (7/6/09)*
- Railbelt net metering rules should reflect those used in other parts of the country or in more progressive parts of the world. - *Michelle Wilber (7/6/09), Tim June (7/13/09)*
- Having excess usage credited to the next electric bill is an important factor in encouraging small renewable electric generation by making it affordable. - *Jeff Friedman (7/2/09), National Wildlife Federation (7/2/09)*
- Utility companies should not have to buy back excess credits at retail cost, but at a reasonable price. - *Jeff Friedman (7/2/09)*

¹ Order R-09-001(2), *Order Issuing Proposed Regulations for Comment*, issued June 12, 2009.

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- The commission should do everything possible to limit the cost of net metering, including looking into state and federal subsidies for net metering consumers. - *Bryan Zak (7/13/09); Robert Burns (7/13/09)*

The Effects of a Net Metering Rule

- The net metering rule will promote economic development in renewable technology. - *National Wildlife Federation (7/2/09), HEA Members Forum (7/2/09), Michelle Wilber (7/6/09), Mark Masteller (7/7/09), Alaska Center for the Environment (7/10/09)*
- The net metering rule will reduce utility bills for participating consumers. - *National Wildlife Federation (7/2/09), HEA Members Forum (7/2/09), Alaska Center for the Environment (7/10/09)*
- The net metering rule will promote the security of our power grid by decentralizing generation. - *Mark Masteller (7/7/09); Michael J Van Note (7/13/09), Tim June (7/13/09)*
- Depending on how they are structured, mandatory net metering programs necessarily shift costs to non-net metering consumers - *Alaska Power Association (7/13/09)*
- The “public” benefits of net metering are privately subsidized by non-net metering consumers rather through typical public means such as grants, tax incentives, or similar methods. - *Alaska Power Association (7/13/09)*
- Net metering will certainly cause generation to be built that is not cost effective, and the rate payers as a group will be burdened with higher costs. - *Municipal Light & Power (7/13/09)*
- Net metering provides a stable return on investment to consumers because the value of electrical power produced remains equal to the retail rate of grid electricity over the design life of the renewable energy equipment installations. It ensures positive and lasting growth in the residential and commercial renewable energy sector. It allows consumers to harness the power of nature on their land and buildings to produce affordable, reliable, and safe energy to offset their monthly usage. It keeps the financial accounting of a grid system simple and the technical elements as simple and safe as possible. It is an effective way for a consumer to reduce both carbon emissions and show by example that they are helping Alaska to achieve energy independence. - *Yukon River Inter-Tribal Watershed Council (7/13/09)*
- The interests of many utilities in resisting net metering are the interests of the majority of its rate payers who will not own net metered generation, and will be required to subsidize the small minority of rate payers who will own net metered generation. - *Municipal Light & Power (7/13/09)*
- Net metering is in conflict with the cost-causer cost-payer principle. It requires non-generating members to subsidize members installing small renewable generation. It also forces the utility electrical system to act as a battery for renewable generating facilities. - *Golden Valley Electric Association, Inc. (7/13/09)*
- Net metering is ultimately no different than conservation. Net metering is not a violation of the cost causer/cost payer principle in the traditional sense because costs have not been shifted to other customers. - *Interstate Renewable Energy Council (7/13/09)*
 - REPLY: Net metering is different from conservation in the following ways: 1) customers only usually displace a small portion of their load through conservation while net metering allows them to displace their entire load; 2) conservation tends to decrease the variability of the customer’s load while net metering tends to increase it; 3) conservation rarely, if ever, trips off-line while net metering resources can trip off-line at any time. - *Municipal Light & Power Reply (7/27/09)*

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Other Comments

- Mandatory net metering programs are not necessary to allow consumer-owned renewable generation to interconnect, as PURPA rules require the interconnection of Qualifying Facilities. - *Alaska Power Association (7/13/09)*
- The commission should investigate and prepare a report for the legislature, administration and the public, identifying and exposing the impact of net metering on the PCE program. The commission should also consider imposing penalties on any utility that takes action to impede, stop, or refuse to publicly share information on projection information, costs, and connective concerns with any member of the public interested in installing eligible net metering systems. - *Duff Mitchell (7/13/09)*
- The commission should explain how its final net metering proposal supports the goal of 50% renewable by 2025 decree made by the administration. The RCA should submit an annual report on how all of its current and future rulings encourage renewable development to meet the 2025 goal. - *Duff Mitchell (7/13/09)*

Comments and Staff Recommendations regarding Proposed Regulations

For purposes of clarity, the proposed language will appear in a different font, a blue color and in italics, followed by the remarks of the commenters. Staff proposed changes to the language, based on input from commentors, will appear in a different font, a red color and in italics. Grammatical and typographic edits were provided by the Alaska Power Association and are reflected, as appropriate, in the proposed language without specific attribution to Alaska Power Association.

Proposed Regulation

Article 3. Net Metering Standards

Section

900. Applicability and waiver

910. Net metering of electricity

920. Eligible consumer generation system

930. Charges or credits for net electricity

940. Interconnection of consumer generation facilities

949. Definitions

Comments

Alaska Power Association, Municipal Light & Power, and Chugach Electric Association suggested that references to “electricity” should be changed to “electric energy” to clarify that the net metering standards address electric energy (kWh), not electric capacity (kW).

Staff Response

Staff concurs that “electric energy” is the appropriate language to use when describing the flow of power to and from a consumer.² This change is included below and as appropriate in the Staff modified language of each section.

Revised Regulation

Article 3. Net Metering Standards

Section

900. Applicability and waiver

*910. Net metering of ~~electricity~~ ***electric energy****

920. Eligible consumer generation system

*930. Charges or credits for net ~~electricity~~ ***electric energy****

940. Interconnection of consumer generation facilities

949. Definitions

² Electricity is fundamentally the charge of particles and does not describe the movement of kWh of electric energy that flow to and from a consumer generator. Electric energy is therefore a more appropriate term.

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Proposed Regulation

3 AAC 50.900. Applicability and waiver. (a) Except as provided in (b) of this section, the net metering requirements listed in 3 AAC 50.900 – 3 AAC 50.949 apply to all electric utilities subject to economic regulation.

(b) Net metering requirements do not apply to

(1) any independent electric system owned and operated by electric utility subject to economic regulation if, except for fossil fuel generation for standby and emergency power, 100 percent of the independent electric system's power is supplied by an alternative energy system, as that term is defined in AS 46.11.900;

Comments

- The proposed language fails to address that political subdivisions are exempt from RCA net metering regulations. The RCA should recommend the legislature enact its own utility legislation with regards to net metering, renewable energy portfolio standards, decoupling, and other federal requirements and provisions enacted by Congress. - *Duff Mitchell (7/13/09)*
- The exception for utilities generating 100% of their power with an alternative energy system should be removed to allow customers to reduce their utility bills and promote distributed renewable generation. - *National Wildlife Federation (7/2/09), Frank Holmes (7/12/09)*
 - REPLY: Requiring a utility to displace lower cost renewable utility generation through higher cost net metering generation does not further the goal of net metering. - *Alaska Power Association Reply (7/27/09), Municipal Light & Power Reply (7/27/09)*
- The commission should change the reference to “alternative energy system” to “eligible facility” defined in 3 AAC 50.949(8) to specify the sources of power that a utility would need to use 100% of in order to be exempt from the net metering rules. - *National Wildlife Federation (7/2/09), Alaska Power Association Reply (7/27/09), Municipal Light & Power Reply (7/27/09)*
- The commission should change the reference to “alternative energy system” to “renewable energy system” and the define it. AS 46.11.900 is archaic and could provide a loophole for polluting coal fired power utilities to be exempt from adding net metering renewable customers. - *Tim June (7/13/09)*

Staff Response

AS 42.05.711 exempts political subdivisions from RCA economic regulation and allows electric utilities grossing less than \$500,000 annually and cooperatives to hold a deregulation election to become exempt from RCA economic regulation. Additionally, electric utilities grossing \$50,000 or less annually are completely exempt from certification and regulation per AS 42.05.711(e).

Electric utilities exempt from economic regulation are only subject to AS 42.05.221 through AS 42.05.281. The statutory authority which allows the RCA to require net metering is found in the commission's ability to establish standards of service and facilities (AS 42.05.291(c)) and to fix rates (AS 42.05.431). Both of these statutes are not applicable to utilities exempt from economic regulation, leaving the commission without statutory authority to require net metering. The only exception Staff could find was if the commission found the public interest requires net metering to become a condition of certification, in accordance with AS 42.05.241.

With that said, political subdivisions and deregulated cooperatives are allowed to be exempt from economic regulation because the customers ultimately control the utility. These deregulated utilities are already able to implement net metering practices of their own design without commission approval. If there is interest in net metering in the communities exempted from this rule, they can petition their utility and seek to implement new rules through a vote of the customers.

In response to the exemption for utilities generating 100% of their power through renewable resources, Staff recommends maintaining the proposed language. The purpose of net metering, as Staff sees it, is to promote renewable generation. At this time, utility-grade renewable

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generation appears to be the more cost-effective, efficient, and environmentally friendly than small on-site customer generation. To require a utility to bypass cheaper utility-grade renewable power to purchase more expensive small-scale renewable power is contrary to the interest of the other utility customers.

Regarding changing the definition of “alternative energy system”, AS 46.11.900(1)(A) states, “‘alternative energy system’ means a source of thermal, mechanical, or electrical energy that is not dependent on oil or gas or a nuclear fuel for the supply of energy for space heating and cooling, refrigeration and cold storage, electrical power, mechanical power, or the heating of water;”

Staff concurs that this definition is open to the possibility that coal could be considered a source of fuel for an alternative fuel system. The use of coal would be contrary to the goals of net metering. Staff therefore recommends the phrase “alternative energy system” and the reference to AS 46.11.900 be replaced with “eligible facility as defined in 3 AAC 50.949(8)”.

Revised Regulation

3 AAC 50.900. Applicability and waiver. (a) Except as provided in (b) of this section, the net metering requirements listed in 3 AAC 50.900 – 3 AAC 50.949 apply to all electric utilities subject to economic regulation.

(b) Net metering requirements do not apply to

(1) any independent electric system owned and operated by an electric utility subject to economic regulation if, except for fossil fuel generation for standby and emergency power, 100 percent of the independent electric system's power is supplied by an ~~alternative energy system~~ eligible facility, as that term is defined in ~~AS 46.11.900~~ 3 AAC 50.949(8);

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(2) *any independent electric system owned and operated by an electric utility subject to economic regulation if the independent system has total retail sales of less than 5,000,000 kWh during the previous calendar year; or*

Comments

- 3 AAC 50.900(b)(2) - The 5,000,000 kWh limit precludes the vast majority of Rural Alaskans from the ability to utilize Net Metering. Smaller utilities should be allowed to exempt themselves by a vote of the customer base but should not be preempted from having this opportunity. - *Rep. Paul Seaton (7/7/09), Peter McKay (7/10/09)*
 - REPLY: This limitation does not preclude small utilities from net metering, but does not levy this requirement upon them. Utilities of this size are significantly more vulnerable to potential negative operational and financial impacts associated with distributed generation and net metering. Additionally, the potential opportunity for net metering is limited with these small systems with the 1.5 % of total average retail demand cap in place. - *Alaska Power Association Reply (7/27/09), Municipal Light & Power Reply (7/27/09)*
- 3 AAC 50.900(b)(2) – The program should be opened to all utilities so that smaller utilities may also gain experience with customer-sited generation. One suggestion is to slowly phase out the limit by decreasing it by 1,000,000 kWh annually so that in five years, all communities regardless of consumption can encourage distributed generation. - *Interstate Renewable Energy Council (7/13/09), Peter Schneider (7/13/09), Michael J Van Note (7/13/09), Tim June (7/13/09), Kootznoowoo, Inc. (7/13/09)*
- 3 AAC 50.900(b)(2) – The threshold should be lowered to 1,000,000 kWh per location and the RCA should publish for the public and the legislature a corresponding map illustrating what communities would and would not be eligible for net metering. - *Duff Mitchell (7/13/09)*
- The applicability of the rule should be expanded to allow other utilities to “opt in” to the program by a vote of their membership. - *National Wildlife Federation (7/2/09)*
- The proposed language unduly discriminates against Rural Alaskans and Federally recognized tribes by not affording them the same opportunity to participate in net metering programs on the same and equal basis of Alaskans with utilities in other State jurisdictions. The proposed language potentially violates the 14th amendment Equal Protection Clause, 1964 Federal Civil Rights Bill and the Indian Commerce Clause of the US Constitution. The State Attorney General's office should issue an opinion on the final proposed language and request US Department of Justice input. - *Duff Mitchell (7/13/09)*
- The proposed regulations foster fossil fuel dependency by discouraging ratepayer investment in utilizing alternative clean energy in the form of solar, wind and hydro power that is in many cases readily available locally. The rules arbitrarily set limits and qualifications based simply on the size of the utility without regard for other factors such as the availability and cost of alternative resources and the cost of fuels used by the utilities. - *Kootznoowoo, Inc. (7/13/09)*

Staff Response

There seems to be a fundamental misunderstanding by some of those commenting that if a utility is exempt from these regulations, they are unable to enact net metering regulations. This is incorrect. The regulations require certain larger utilities to enact net metering rules. Smaller utilities, or utilities that are outside of our authority to economically regulate, are exempted from the requirement and instead allowed to choose independently whether net metering makes sense for their system. Limitations in net metering are imposed in order to protect the integrity of the systems. The Railbelt electric system, the largest interconnected “grid” in Alaska is very small in comparison to the nation-wide grid in the lower 48 states and lacks a robust transmission and distribution network. Systems with less than 5,000,000 kWh in annual sales are much smaller

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and even more fragile than the Railbelt system. While it is possible and even likely that these systems could accommodate some interconnection of on-site non-firm generation, there will be .

A good illustration is TDX Sand Point Generating, Inc. Their retail sales for the fiscal year ending September 30, 2008, were 4,254,000 kWh.³ This equates to an average retail demand of 485 kW.⁴ Under the proposed 1.5% of average retail demand limit, TDX Sand Point could have up to 7.3 kW of installed on-site consumer renewable generation. This is less than half of the proposed 25 kW per installation limit proposed in these regulations. It is likely that only one or two customers could participate in net metering. The 1,000,000 kWh limit proposed by some commentators would only allow at most 1.7 kW of installed generation if the other parameters were kept in place. Given this limitation, Staff believes it best to allow smaller utilities to formulate their own net metering program, if they choose to do so, rather than requiring them to comply with regulations crafted for much larger utilities.

The smaller utilities also have different operating parameters. Interconnecting small non-firm generation may create operational problems and sometimes cause older diesel generation to operate less efficiently. The scenarios will likely vary from utility to utility and it may be difficult for the commission to establish a broad net metering policy which will adequately account these differences. Again, nothing in these regulations stop a rural community from seeking to implement a similar or perhaps even more expansive net metering program.

For the reasons cited above, Staff recommends the commission adopt the language as proposed.

Revised Regulation

(2) any independent electric system owned and operated by an electric utility subject to economic regulation if the independent system ~~has had~~ total retail sales of less than 5,000,000 kWh during the previous calendar year; or

³ Annual Operations Report for TDX SAND POINT GENERATING, INC. (FYE SEPT. 30, 2008), filed January 26, 2009, page 26.

⁴ Average Retail Demand = (Annual Retail kWh sales) / (365 days per year x 24 hours per day)

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(3) any portion of the distribution system of an electric utility subject to economic regulation if and to the extent the electric utility demonstrates to the commission that limiting net metering installations in that portion of its distribution system is reasonably necessary to address system stability constraints or other operational issues.

Comments

- 3 AAC 50.900(b)(3) – Delete this section or define “reasonably necessary” to prevent abuse from the utilities. - *Tim June (7/13/09)*
- 3 AAC 50.900(3) – Certain utilities and specific portions of some utility distribution systems should be exempt from net metering requirements. - *Golden Valley Electric Association, Inc. (7/13/09)*

Staff Response

Staff believes this exception is necessary to prevent system stability problems that could be caused by several net metering customers being located on the same distribution line. The exception does not automatically grant an exemption to utilities, but establishes a standard which a utility would have to meet in a proceeding before the commission. Staff recommends the proposed language remain unchanged.

Revised Regulation

No changes

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(c) Except for those that are also required under AS 42.05, any requirement in 3 AAC 50.900 – 3 AAC 50.949 may be modified or waived, in whole or in part, by order of the commission upon application and a showing of good cause or on the commission's own motion. Application for waiver under this section must be in writing and set out the pertinent facts in sufficient detail to support a finding by the commission that no legitimate public interest will be served by enforcing the requirement designated in the application.

Comments

- 3 AAC 50.900(c) – This regulation should be modified to require public notice using the typical RCA public notice process. - Peter McKay (7/10/09)
 - REPLY: If not already required, there is no objection to this recommendation. - Municipal Light & Power Reply (7/27/09)
- 3 AAC 50.900(c) – The waiver provision should simply state that for good cause shown, the commission will, in its discretion, waive all or part of the net metering regulations. Although the proposed language reflects existing language in other commission waiver provisions, the proposed simplifications reflects the reality that the commission may waive the application of its regulations if it finds good cause to do so. This is also consistent with other commission waiver regulations such as: 3 AAC 50.100(b), 52.400(d), 53.200(c), and 53.300(c). - Alaska Power Association (7/13/09), Municipal Light & Power (7/13/09), Chugach Electric Association (7/13/09)
- 3 AAC 50.900(c) – Delete this subsection. This leaves the commission burdened with countless appeals, political pressure, and doesn't likely represent the public interest. - Tim June (7/13/09)

Staff Response

Staff consulted with Assistant Attorney General, Stuart Goering on this matter. The change suggested by APA, ML&P, and Chugach deletes the requirement for the application to be in writing and with factual support for a good cause finding. This is aimed at lowering the bar for a waiver applicant. However, Staff believes the applicant should bear the burden of providing factual support to substantiate their request for a waiver.

Regarding the request for public notice, a waiver request is not typically required to be noticed to the public. If a utility requested a waiver, it would likely be in the form of a waiver of a tariff provision, which in practice is typically noticed by the commission. If a consumer requested a waiver, it is unlikely they would want to bear the expense of public notice. Staff does not believe altering this language to require public notice would ultimately be fruitful.

Revised Regulation

No changes

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3 AAC 50.910. Net metering of electricity. (a) Except as provided in (b) of this section, an electric utility shall

- (1) make a net metering program available to each of its consumers; and
- (2) allow consumer generation systems to be interconnected to the electric utility's facilities in accordance with interconnection standards established by the commission.

Comments

- 3 AAC 50.910(a)(2) – It should be clarified that the interconnection obligation exists only with respect to “eligible” consumer generation systems. “Established” should be replaced with “approved or accepted” when referring to the interconnection standards that apply. Utilities may establish their own interconnection standards that are approved by the commission. The alternate wording accommodates this possibility. - Alaska Power Association (7/13/09), Municipal Light & Power (7/13/09), Chugach Electric Association (7/13/09)

Staff Response

Staff concurs with the changes suggested in the comment above in substance. Because all of the utilities affected by these regulations are economically regulated, interconnection standards must be “approved” by the commission in a tariff submission or approved by the commission in regulations (see 3 AAC 48.220(e)). The term, “accepted” would not be applicable here, except that a utility and consumer may potentially stipulate to a set of interconnection standards that the commission would not formally “approve”, but would “accept”. Staff therefore believes the addition of “approve and accept” is appropriate. Additionally, Staff suggests changing “electricity” to “electric energy”, and specifying that the consumers eligible to participate are retail consumers, not wholesale.

Revised Regulation

3 AAC 50.910. Net metering of ~~electricity~~ electric energy. (a) Except as provided in (b) of this section, an electric utility shall

- (1) make a net metering program available to each of its retail consumers; and
- (2) allow eligible consumer generation systems to be interconnected to the electric utility's facilities in accordance with interconnection standards ~~established~~ approved or accepted by the commission.

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(b) An electric utility may refuse to interconnect with a consumer requesting net metering if interconnection would cause the cumulative nameplate capacity of consumer generation systems interconnected with the utility to exceed 1.5 percent of the electric utility's average demand. The utility shall notify the commission if it refuses to interconnect with a potential net metering consumer on the basis that interconnection would cause the utility to exceed 1.5 percent of average demand.

(c) An electric utility that has a decrease in average demand that results in the cumulative nameplate capacity of consumer generation systems exceeding 1.5 percent of average demand shall allow existing net metering consumers to continue participating in the net metering program.

Comments

- The capacity limit should be changed to 1% of a utility's peak load rather than 1.5% of the average demand. - National Wildlife Federation (7/2/09), HEA Members Forum (7/2/09), Harvey Bowers (7/3/09), Nina Faust and Edgar Bailey (7/7/09), Mark Masteller (7/7/09), Lawrence Whiting (7/9/09), Matt Gray (7/10/09), Alaska Center for the Environment (7/10/09), Dr. Frederick Foster (7/12/09), Sherry Kimmons (7/12/09); Peter Schneider (7/13/09); Rebecca Shaffer (7/13/09); Philip Kaluza (7/13/09)
 - REPLY: 1.5% of average retail demand is roughly equivalent to 1% of peak demand for most utilities. Average retail demand data is also much easier and quicker to obtain, report, and verify than peak retail demand. The 1.5% level should not be increased because this goes against the compromise reached at the commission's technical conference. The request for 1% of peak demand is based upon the misunderstanding of data presented at a commission public meeting. - Alaska Power Association Reply (7/27/09), Municipal Light & Power Reply (7/27/09), Chugach Electric Association, Inc. Reply (7/27/09)
- The proposed capacity limit of 1.5% of average demand should be increased to 2.0% of average demand so that it at least equals 1% of peak demand for the affected utilities. - Rep. Paul Seaton (7/7/09), Alaska Center for the Environment (7/10/09), Yukon River Inter-Tribal Watershed Council (7/13/09)
 - REPLY: This is contrary to the agreement reached in the technical conference. - Municipal Light & Power Reply (7/27/09)
- The proposed capacity limit of 1.5% of average demand should be increased. - Frank Holmes (7/12/09)
- 3 AAC 50.910(2)(b)-(e) - The 1.5% of average demand participation limit should be expanded to 20% of peak demand from the previous year. Increasing this limit should pose no harm to system stability as the bulk of customer generation is used on-site and does not go back onto the grid. - Peter McKay (7/10/09), Tim June (7/13/09)
 - REPLY: This is contrary to the agreement reached in the technical conference. Additionally, net metering of this magnitude could ultimately result in the financial collapse of a utility if net metering were continued in its current form. - Municipal Light & Power Reply (7/27/09)
- 3 AAC 50.910(2)(b)-(e) – The program should ultimately be expanded and the cap should be removed. - Interstate Renewable Energy Council (7/13/09); Michael J Van Note (7/13/09); Bill Lynch (7/13/09); Bryan Zak (7/13/09)
- 3 AAC 50.910(b) and (c) – Changes should be made to clarify the text of these subsections. See above changes. - Alaska Power Association (7/13/09), Chugach Electric Association (7/13/09)
- 3 AAC 50.910(b) and (c) – At worst, net metered generation will have zero value to the utility. In this worst case scenario, the utility would increase utility's rates by approximately 1.5%. This boundary is necessary to limit the potential harm done to the non-participating rate payers. protect - Municipal Light & Power (7/13/09)

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- 3 AAC 50.910 – Requiring utilities to offer and connect up to a certain percentage of net metering customers creates a first-come first-served dilemma for the utility. If the state wishes to stimulate small scale renewable generation, then net metering should be a state funded program, such as the PCE program, where costs are spread to all members and no limits are imposed. - Golden Valley Electric Association, Inc. (7/13/09)

Staff Response

First of all, Staff concurs that the term, “average demand” should be changed to “average retail demand” for the sake of clarity. There appears to be a lot of confusion regarding the difference between peak demand and average retail demand. The peak demand data collected by the utilities includes both retail and wholesale demand. Average retail demand is calculated by dividing the total retail sales for a period by the number of hours in that period. For a utility that has no wholesale sales, either number could be used. For a utility with significant wholesale sales, like Chugach Electric Association, Inc. (CEA), the difference between 1% of peak demand and 1.5% of average retail demand is significant. The chart below illustrates the difference.

Entity	kWh sold	1.5% Avg. Retail Demand			2.0% Avg. Retail Demand			1.0% Peak Demand		
		Demand (kW)	1.5% (kW)	# 5 kW Systems	Demand (kW)	2.0% (kW)	# 5 kW Systems	Demand (kW)	1% (kW)	# 5 kW Systems
TDX Sand Point Generating	3,966,836	453	7	1	453	9	2	Unavailable	Unknown	Unknown
Bethel Utilities Corporation	39,103,836	4,464	67	13	4,464	89	18	7,075	71	14
TDX North Slope Generating	41,721,461	4,763	71	14	4,763	95	19	Unavailable	Unknown	Unknown
Alaska Power Company	65,039,472	7,425	111	22	7,425	148	30	Unavailable	Unknown	Unknown
Alaska Electric Light & Power	346,840,000	39,594	594	119	39,594	792	158	66,000	660	132
Homer Electric Association	523,330,000	59,741	896	179	59,741	1,195	239	89,000	890	178
Matanuska Electric Association	700,924,000	80,014	1,200	240	80,014	1,600	320	139,000	1,390	278
Municipal Light & Power	1,118,751,652	127,711	1,916	383	127,711	2,554	511	183,000	1,830	366
Chugach Electric Association	1,205,832,000	137,652	2,065	413	137,652	2,753	551	479,000	4,790	958
Golden Valley Electric Association	1,349,251,000	154,024	2,310	462	154,024	3,080	616	223,000	2,230	446

The chart includes data from many of the economically regulated utilities that would be affected by this regulation, with the exception of TDX Sand Point Generating, which has annual sales less than 5,000,000 kWh, but which was included for comparison sake. It should first be noted that peak demand data is not readily available from all utilities. Secondly, when comparing 1.5% average retail demand to 1.0% of peak demand, it becomes apparent that the number of 5 kW systems that could interconnect are roughly the same. Sometimes the 1.5% of average retail demand produces a higher number; sometimes the 1.0% of peak demand produces a higher number. The difference is the operating characteristics of the utility. A system with larger peak swings, typically due to significant seasonal fluctuations, will probably see a larger number of net metering systems allowed under the 1.0% of peak demand scenario.

It should also be noted that the large difference between the number of 5 kW systems allowed for CEA under the different scenarios is the result of CEA's wholesale sales being included in the calculation of its peak demand. Overall, Staff believes the use of average retail demand makes more sense than using peak demand. Additionally, the use of 1.5% of average retail demand most closely approximates 1.0% of peak demand for most utilities. Staff believes it is the intent of the commission to allow a controlled trial of net metering that will limit the potential rate increase for consumers who do not choose to net meter. This cap is an essential part of limiting that financial risk.

Finally, the regulations as proposed allow a utility to approach the commission regarding increasing the cap to allow additional net metering beyond the 1.5% of average retail demand limit (see proposed 3 AAC 50.910(e)).

There is a possibility that the cap will produce a dilemma if the potential capacity is filled up, a utility is unwilling to seek to expand the cap, and additional consumers wish to interconnect eligible generation. One of the requirements of the proposed regulation is for the utility to publish annually in its tariff the result of the 1.5% of average retail demand calculation and the total nameplate capacity of interconnected net metering consumers (see proposed 3 AAC 50.910(d)). This will allow the commission to monitor how quickly interconnection is occurring and take necessary steps to revisit the net metering regulations at the appropriate time.

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Editorial changes were suggested to the proposed regulation by APA to improve clarity. Staff concurs with the proposed changes and they are included in the revision below.

Revised Regulation

(b) An electric utility may refuse to interconnect with a consumer requesting net metering if interconnection would cause the ~~cumulative total~~ nameplate capacity of ~~all~~ consumer generation systems interconnected with the utility to exceed 1.5 percent of the electric utility's average ~~retail~~ demand. The utility shall notify the commission if it refuses to interconnect with a potential net metering consumer on the basis that interconnection would cause the total nameplate capacity of all consumer generation systems interconnected with the utility to exceed 1.5 percent of average demand.

(c) An electric utility that has a decrease in average ~~retail~~ demand that results in the ~~cumulative total~~ nameplate capacity of consumer generation systems exceeding 1.5 percent of average ~~retail~~ demand shall allow existing net metering consumers to continue participating in the net metering program.

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

(d) By the first day of February of each year, an electric utility shall file a tariff advice letter with accompanying tariff sheet stating the number of kilowatts equivalent to 1.5 percent of the electric utility's average demand for the previous calendar year and the cumulative nameplate capacity of consumer generation systems interconnected with the utility at the time of filing.

Comments

- 3 AAC 50.910(d) – The due date for reporting average retail demand and total nameplate capacity of consumer generation systems should be changed from February 1st to March 1st to better ensure that utilities have the opportunity to collect accurate data. - Alaska Power Association (7/13/09), Chugach Electric Association (7/13/09)

Staff Response

Staff has no problem with changing the due date to March 1st to allow the utilities to have additional time to compile data. Editorial changes were suggested to the proposed regulation by APA to improve clarity. Staff concurs with the proposed changes and they are included in the revision below.

Revised Regulation

*(d) By the first day of ~~February~~ **March** of each year, an electric utility shall file a tariff advice letter with accompanying tariff sheet stating the number of kilowatts equivalent to 1.5 percent of the electric utility's average retail demand for the previous calendar year and the cumulative total nameplate capacity of consumer generation systems interconnected with the utility at the time of filing.*

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

(e) An electric utility may request, by tariff advice letter, an increase in the limit on cumulative nameplate capacity of consumer generation systems above 1.5 percent of the electric utility's average demand.

(f) An electric utility may deny participation in a net metering program to an electric consumer that

(1) participates in another program that allows the consumer to collect, through voluntary contributions from other participating customers of the utility, more than the non-firm power rate per kilowatt-hour for the sale of electricity; or

(2) sells electricity under an existing contract that allows the consumer to collect more than the non-firm power rate per kilowatt-hour for the sale of electricity.

Comments

- 3 AAC 50.910(f) – “non-firm power rate” should be changed to “non-firm electric energy rate” and then properly defined in the definition section. - Alaska Power Association (7/13/09), Chugach Electric Association (7/13/09)
- 3 AAC 50.910 – The phrase “retail” should be inserted throughout 3 AAC 50.910 to clarify that net metering is required for retail, not wholesale customers. - Alaska Power Association (7/13/09), Chugach Electric Association (7/13/09)
- 3 AAC 50.910(f) – Delete this section. What harm is done if renewable participants are voluntarily awarded a higher rate? - Tim June (7/13/09)

Staff Response

While Staff understands APA and CEA's concern with the term “non-firm power”, the phrase as defined in the regulations refers to 3 AAC 50.770(d), which also uses the term “non-firm power”. The same phrase is also used several other times in regulations.⁵ Because the term is used elsewhere and is clearly defined in regulations, Staff believes it should remain the same. However, the use of the term “electricity”, should be changed to “electric energy”. Staff concurs with the insertion of the word, “retail”.

Regarding Mr. June's comments, Staff does not believe it appropriate to allow a consumer to participate in both the net metering program and another incentivized program simultaneously. This creates the potential for a windfall, which works contrary to purposes of net metering. The goal is not to make a profit for the customer, but to offset energy charges, produce environmentally neutral power, and provide a benefit to other customers.

Revised Regulation

(e) An electric utility may request, by tariff advice letter, an increase in the limit on cumulative nameplate capacity of consumer generation systems above 1.5 percent of the electric utility's average retail demand.

(f) An electric utility may deny participation in a net metering program to an electric consumer that

(1) participates in another program that allows the consumer to collect, through voluntary contributions from other participating customers of the utility, more than the non-firm power rate per kilowatt-hour for the sale of ~~electricity~~ electric energy; or

(2) sells ~~electricity~~ electric energy under an existing contract that allows the consumer to collect more than the non-firm power rate per kilowatt-hour for the sale of ~~electricity~~ electric energy.

⁵ The term, “non-firm power” can be found in the following approved regulations: 3 AAC 50.770(d), (d)(2), (d)(3), 3 AAC 50.790(a)(2), and is defined in 3 AAC 50.820(9).

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

(g) An electric utility may, if permitted by its tariff, require additional metering equipment for net metering consumers. The electric utility

(1) is responsible for all costs related to the purchase, installation, and maintenance of the additional metering equipment; and

(2) may not assess a recurring charge for the additional metering equipment.

Comments

- 3 AAC 50.910(g) – The phrase “if permitted in its tariff” should be deleted because it is unduly burdensome and unnecessary. Most utility tariffs do not specify precisely how much metering equipment is permissible and this language might require utilities to add tariff provisions that are otherwise unnecessary. - Alaska Power Association (7/13/09)
- 3 AAC 50.900(3) – Add a provision stating that utilities must not require renewable participants to pay for liability insurance. - Tim June (7/13/09)

Staff Response

The purpose of this regulation is to prevent utilities from creating a barrier to net metering by requiring metering equipment beyond the requirements for non-net metering consumers and then charging them for it. Staff concurs that utilities have not yet published this level of specificity in their tariffs regarding metering. Utilities will be required, however, to update their tariffs to reflect the new net metering regulations. It should not be onerous to add a provision identifying additional metering they may require, the circumstances under which it will be required, and explaining that the additional expense will be borne by the utility. Requiring this to be in the tariff will allow commission oversight of this process and protect both the utility and the customer from possible disagreements that may result over the fees connected to net metering.

Staff believes the issue of liability insurance is beyond the scope of this docket. It is being considered within the interconnection regulations being developed in Docket R-09-2.

Revised Regulation

No changes

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

3 AAC 50.920. Eligible consumer generation system. To be eligible for interconnection under a net metering program, a consumer generation system must

Comments

- 3 AAC 50.920 – The word, “consumer” should be deleted to prevent a circular reference.
- Alaska Power Association (7/13/09)

Staff Response

Staff concurs with the editorial comment.

Revised Regulation

3 AAC 50.920. Eligible consumer generation system. To be eligible for interconnection under a net metering program, a ~~consumer~~ generation system must

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

- (1) be an eligible facility*
- (2) be owned or leased and operated by the consumer and*
 - (A) have a cumulative nameplate capacity of not more than 25 kilowatts per consumer premises;*

Comments

- 3 AAC 50.920(2)(A) – The cumulative nameplate capacity of consumer generation should be increased from 25kW to 1MW in order to allow commercial and industrial users to participate. - Peter McKay (7/10/09)
 - REPLY: There is no problem with this change if it can be accommodated under the 1.5% cap, but it would likely preclude smaller systems from being included after larger commercial systems utilize all the available net metering capacity. - Municipal Light & Power Reply (7/27/09)
- 3 AAC 50.920(2)(A) – The cumulative nameplate capacity of consumer generation should be increased. The safety concerns could be addressed in interconnection regulations. The proposed program cap of 1.5% effectively constrains microgrid installations. Hawaii has similar grid issues and has a net metering cap of 100 kW for its major utilities and 50 kW for a smaller utility. - Interstate Renewable Energy Council (7/13/09), Tim June (7/13/09)
- 3 AAC 50.920(2)(A) – The cumulative nameplate capacity of consumer generation should be increased to 100 kW with a sliding scale of an additional 200 kW to be added to the base capacity standard annually, with a maximum of 1MW to be the standard in five years. - Duff Mitchell (7/13/09)
- 3 AAC 50.920(2) – The language requiring the consumer generation system to be owned or leased, and operated, by the consumer should be carefully reviewed for purpose and revised to remove all ambiguity - Municipal Light & Power (7/13/09)

Staff Response

The 25 kW limit on the capacity of the system was chosen to insure that the smaller consumer generators would have the opportunity to interconnect and participate in this program. With a larger generator capacity and a limited system capacity for net metering, the smaller systems could be squeezed out. Additionally, Staff does not recall receiving comments from larger corporate consumers who are seeking to net meter. Their lack of participation in this docket indicates a lack of serious interest at this time. Staff is therefore not inclined to recommend expanding the generation size limit beyond 25 kW.

Staff has informed our AAG's about ML&P's comments regarding our purpose in this section and asked them to be prepared to speak regarding any changes that should be made.

Minor editorial corrections are made below reflecting suggestions by APA.

Revised Regulation

- (1) be an eligible facility;*
- (2) be owned or leased, and operated, by the consumer, and*
 - (A) have a cumulative nameplate capacity of not more than 25 kilowatts per consumer premises;*

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

- (B) be located on, or adjacent to, the consumer premises;*
- (C) be used primarily to offset part or all of the consumer's requirements for electricity;*
- (D) be controlled by an inverter or switchgear; and*
- (3) include an electric generator and its accompanying equipment package.*

Comments

- 3 AAC 50.920(2)(D) – The phrase “be controlled by an inverter or switchgear” should be replaced with “include an inverter”. Inverters generally transform DC to AC, but do not technically “control” the consumer generation system. Also switchgear does not substitute for an inverter. - Alaska Power Association (7/13/09), Chugach Electric Association (7/13/09)
- {NEW} 3 AAC 50.920(4) and (5) – The following language should be added, “(4) be physically interconnected to the consumer’s side of them meter (delivery point) from which electric service is provided by the utility to the consumer; and (5) be in compliance with applicable interconnection standards.” - Alaska Power Association (7/13/09), Municipal Light & Power (7/13/09), Chugach Electric Association (7/13/09)

Staff Response

Staff concurs with APA’s suggestions. Specific technical requirements will be covered in the interconnection regulations. It should be sufficient to say, “include an inverter” in section (d). Staffl also believes it is appropriate to specific that the consumer generation is connected on the customer’s side of the meter. Adding a statement about compliance with the applicable interconnection standards is redundant to the proposed 3 AAC 50.910(2), which states that the utility will allow eligible consumer generation systems to be interconnected to the utility’s facilities in accordance with interconnection standards approved by the commission. Staff therefore feels that an additional statement regarding interconnection regulations is not necessary.

Revised Regulation

- (B) be located on, or adjacent to, the consumer premises;*
- (C) be used primarily to offset part or all of the consumer's requirements for electricity electric energy; and*
- (D) ~~be controlled by~~ include an inverter ~~or switchgear; and~~*
- (3) include an electric generator and its accompanying equipment package; and*
- (4) be physically interconnected to the consumer’s side of the meter (delivery point) from which electric service is provided by the utility to the consumer.*

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

3 AAC 50.930. Charges or credits for net electricity. (a) Each electric utility with a consumer participating in a net metering program shall measure the net electricity used or supplied by the consumer during each monthly billing period, and

(1) if the consumer has used more electricity than the consumer supplied to the utility during the billing period, the electric utility shall bill the consumer for the number of kilowatt hours of net electricity at the applicable rate contained in the utility's currently effective tariff; or

(2) if the consumer has supplied more electricity to the utility than the consumer used during the billing period, the electric utility shall credit the consumer's account with an amount derived by multiplying the kilowatt hours of excess consumer-generated electricity by the non-firm power rate contained in the utility's currently effective tariff, unless a different rate has been established in a commission-approved contract.

Comments

- 3 AAC 50.930(a) – This section should be revised to remove the word, “use” because it creates potential confusion. The following language should be used, “3 AAC 50.930. Charges or credits for net electric energy. (a) Each electric utility with a consumer participating in a net metering program shall measure net electric electricity during each monthly billing period, and (1) if the utility supplied more electric energy to the consumer than the consumer supplied to the utility during the monthly billing period, the electric utility shall bill the consumer for the umber of kilowatt hours of net electric energy supplied by the utility to the consumer at the applicable rates contained in the utility's currently effective tariff; or (2) if the consumer supplied more electric energy to the utility than the utility supplied to the consumer during the monthly billing period, the electric utility shall credit the consumer's account with an amount derived by multiplying the kilowatt hours of net electric energy supplied by the consumer to the utility by the non-firm electric energy rate contained in the utility's currently effective tariff, unless a different rate has been established in a commission-approved contract.” - Alaska Power Association (7/13/09), Municipal Light & Power (7/13/09), Chugach Electric Association (7/13/09)
- 3 AAC 50.930(a)(2) – Unused kWh hours at the end of an annual accounting cycle should be either: carried forward for future use, donated to a non-profit or low-income customer, or compensate the customer at the average hourly incremental cost of electricity supply over the same calendar year. - Peter McKay (7/10/09)
- 3 AAC 50.930(a)(2) – Any excess generation should be valued at the full retail rate rather than the discounted avoided cost rate and/or the commission should change the proposed monthly accounting period to an annual accounting period for the purpose of rolling over excess generation at a retail rate. - National Wildlife Federation (7/2/09), HEA Members Forum (7/2/09), Harvey Bowers (7/3/09), Nina Faust and Edgar Bailey (7/7/09), Mark Masteller (7/7/09), Rep. Paul Seaton (7/7/09), Phil St John (7/9/09), Lawrence Whiting (7/9/09), Peter McKay (7/10/09), Matt Gray (7/10/09), Alaska Center for the Environment (7/10/09), Dr. Frederick Foster (7/12/09), Sherry Kimmons (7/12/09), Frank Holmes (7/12/09), Yukon River Inter-Tribal Watershed Council (7/13/09), Peter Schneider (7/13/09), Ole Anderson (7/13/09), Bill Lynch (7/13/09), Rebecca Shaffer (7/13/09), Philip Kaluza (7/13/09), Robert Burns (7/13/09), Tim June (7/13/09)
 - REPLY: The proposed regulation language is a compromise agreed to by those attending the technical conference. The utilities have consistently argued that adopting a retail value for excess net electricity will increase the utility's overall cost of power and require the utility to displace low-cost, firm utility generation with higher-cost, purchases of non-firm power. The utility will recover all of its costs but will increase customer rates to do so. It would not be easier for utilities to track kWh credits than to calculate and keep track of a monetary credit. No more price certainty is offered by adopting the kWh for kWh method because both retail and non-firm rates change periodically. - Alaska Power Authority Reply (7/27/09), Municipal Light & Power Reply (7/27/09)

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- 3 AAC 50.930(a)(2) – Excess generation should be allowed to roll over from month to month. By monetizing excess generation, the customer has an incentive to install an oversized facility. Allowing monthly rollover is easier to administer. Utilities concerned about seasonal fluctuations could zero out a customer's excess generation on October 1st of each year, which would benefit the utility as the most expensive generation is in the winter. - Interstate Renewable Energy Council (7/13/09)
 - REPLY: Over-sizing generation is not likely to be a problem because the proposed regulations require the generation to be sized for the load and the proposed scheme of rolling forward energy credit at a non-firm rate from month to month will disincentivize over-sizing. Also, the monthly rollover procedure proposed by IREC is not easier to administer by the utility. - Municipal Light & Power Reply (7/27/09)
- Monetary calculation of credits creates the potential of an IRS taxable business transaction as opposed to a kWh credit. - Rep. Paul Seaton (7/7/09)
 - REPLY: No citation was provided by the individuals claiming that crediting excess energy in the form of a dollar credit was a taxable event. - Alaska Power Authority Reply (7/27/09), Municipal Light & Power Reply (7/27/09)

Staff Response

Staff concurs with APA's suggestions to clarify the wording of this section with the exception of replacing "non-firm power rate" with "non-firm electric energy rate".

The basis of this section is the compromise reached by the net metering advocates and the utilities at the technical conference. To alter this section at this juncture would undermine the fragile agreement that was reached by the participants. The net metering rules contained herein are designed to limit the potential negative financial effects of net metering on consumers who do not net metering. Staff concurs that this mutes the benefits of net metering for those who participate in the program. Both sides of this issue have strongly argued their positions but neither side has any real experience with net metering in Alaska. Staff believes that going forward with the substance of the proposed regulation is the best way to build experience in net metering. The rules can be revisited in the future as needed and with actual data.

Regarding the claim that the monetary calculation of credits creates the potential of an IRS taxable business transaction, Staff will look to the AAG at the public meeting to address this claim.

Revised Regulation

3 AAC 50.930. Charges or credits for net ~~electricity~~ electric energy. (a) Each electric utility with a consumer participating in a net metering program shall measure the net ~~electricity~~ electric energy used or supplied by the consumer during each monthly billing period, and

(1) if the utility supplied more electric energy to the consumer ~~has used more electricity~~ than the consumer supplied to the utility during the monthly billing period, the electric utility shall bill the consumer for the number of kilowatt hours of net ~~electricity~~ electric energy supplied by the utility to the customer at the applicable rates contained in the utility's currently effective tariff; or

(2) if the consumer ~~has~~ supplied more ~~electricity~~ electric energy to the utility than the utility supplied to the consumer ~~used~~ during the monthly billing period, the electric utility shall credit the consumer's account with an amount derived by multiplying the kilowatt hours of net electric energy supplied by the consumer to the utility ~~excess consumer-generated electricity~~ by the non-firm power rate contained in the utility's currently effective tariff, unless a different rate has been established in a commission-approved contract.

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

(b) Amounts added to the account of a net metering consumer for furnishing electricity to the utility under (c) of this section

*(1) will be used to reduce amounts owed by the consumer in subsequent billing periods;
and*

(2) do not expire or otherwise revert to the utility.

Comments

- 3 AAC 50.930(b) - The language at is unclear as to the accounting cycle that would be applied to net metering participants' production of excess power. - HEA Members Forum (7/2/09)
- 3 AAC 50.930(b) – This section should be revised to clarify that the applicable billing period is “monthly” and that the consumer credits under Subsection (a)(2) are “Dollars amounts credited”, not “amounts added”, which can be confused with kWhs. - Alaska Power Association (7/13/09), Chugach Electric Association (7/13/09)

Staff Response

Staff believes the revisions proposed by APA and CEA will clarify that the regulations refer to a monthly billing period. Staff also believes that the reference to 3 AAC 50.930(c) should be changed to 3 AAC 50.930(a)(2).

Revised Regulation

(b) ~~Amounts~~ Dollar amounts added credited to the account of a net metering consumer for furnishing ~~electricity~~ electric energy to the utility under ~~(c)~~ (a)(2) of this section

(1) will be used to reduce dollar amounts owed by the consumer in subsequent monthly billing periods; and

(2) do not expire or otherwise revert to the utility.

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

(c) The electric utility may bill a net metering consumer for non-generation related consumer charges authorized by the electric utility's approved tariff.

Comments

- 3 AAC 50.930(c) – This section should be revised to clarify that with the exception of the special rules provided in subsections (a) and (b), all other applicable tariff charges apply. The proposed APA revision eliminates the need to define “non-generation related consumer charges” in the definitions section. - Alaska Power Association (7/13/09), Chugach Electric Association (7/13/09)

Staff Response

Staff concurs that the APA and CEA changes would simplify and add greater clarity to the proposed regulations.

Revised Regulation

(c) ~~The~~ Except as otherwise provided in (a) and (b) of this section regarding per-kilowatt hour charges, the electric utility may bill a net metering consumer for all applicable ~~non-generation related consumer~~ charges authorized by the electric utility's approved tariff.

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

(d) An electric utility administering a net metering program may not charge a consumer participating in the net metering program any additional fee for standby, capacity, interconnection, or other net metering expense unless approved by the commission.

(e) An electric utility may petition the commission to change electric rate designs, consistent with 3 AAC 48.500 - 3 AAC 48.560, to include appropriate rate classes for net metered consumers if the utility can demonstrate an adverse material rate impact on utility consumers that do not participate in the net metering program.

Comments

- 3 AAC 50.930(e) – This language should be removed because:
 1. The ability to create a special rate class for net metered consumers defeats the purpose of the rule and/or undermines the confidence of potential net metering consumers in recovering the cost of their capital investment in generation.
 2. The proposed rule already protects the utilities against excessive cost-shifting by limiting the number of net metering participants.
 3. This provision assumes the validity of the utility’s argument and does not allow the case to have a neutral starting point. The RCA has not done a full “finding in fact” that Net Metering substantially violates the cost-causer/cost-payer principle.
 4. Utilities are already free to apply to the RCA and prove a case for a rate change.
 5. This provision promotes wasteful spending of utility money in litigation rather than working for the ratepayers. - National Wildlife Federation (7/2/09), HEA Members Forum (7/2/09), Harvey Bowers (7/3/09), Nina Faust and Edgar Bailey (7/7/09), Mark Masteller (7/7/09), Rep. Paul Seaton (7/7/09), Lawrence Whiting (7/9/09), Peter McKay (7/10/09), Matt Gray (7/10/09), Alaska Center for the Environment (7/10/09), Alan Austerman (7/11/09), Dr. Frederick Foster (7/12/09), Sherry Kimmons (7/12/09), Yukon River Inter-Tribal Watershed Council (7/13/09), Rebecca Shaffer (7/13/09), Philip Kaluza (7/13/09), Tim June (7/13/09)
 - REPLY: This provision should be retained. Preserving the utility’s existing right to request rate design changes was a critical, necessary component of APA’s acceptance of the Commission Staff’s straw-man proposal. This subsection is fair and reasonable and merely maintains the status quo. The utility is always free to request rate changes. The utility also has the burden of proving that the proposed rate design is just and reasonable. Also, this language introduces a specific standard, requiring the utility to demonstrate an “adverse material rate impact” on non-net metering customers. This provision creates no new risk to net metering customers because no new opportunity is provided for that does not exist already. If net metering proponents truly believe that net metering is cost effective and produces a de minimus rate burden or even a rate decrease for non-net metering consumers, they should not feel threatened by this language. - Alaska Power Authority Reply (7/27/09), Municipal Light & Power Reply (7/27/09), Chugach Electric Association, Inc. Reply (7/27/09)
 - REPLY: This provision was not proposed until the March 2009 technical conference and the net metering proponents never agreed to the creation of a special rate class provision. This language should be deleted. - National Wildlife Federation (7/27/09)
- 3 AAC 50.930(3) – This language should be non-controversial if a utility can actually demonstrate that net metering is harming customers. - Municipal Light & Power (7/13/09)
- 3 AAC 50.930(3) – The proposed cost-of-service based non-generation charge would offset the utility’s distribution costs not covered by a net metering customer when the consumer “nets” or nearly offsets their monthly consumption of electricity. - Golden Valley Electric Association, Inc. (7/13/09)

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

- 3 AAC 50.930(3) – Customers should be provided pricing certainty by removing this language. Safe harbor provisions should be provided to assure customers that they will be subject to the same tariffs that would apply if they did not have distributed generation facilities. - Interstate Renewable Energy Council (7/13/09)
 - REPLY: Investing necessarily entails risk. The utilities are unlikely to seek to exercise this provision as long as the 1.5% cap remains in place. If, however, the effects are large enough and harmful enough, it is hard to argue that the rates should not be adjusted to reduce harm. - Municipal Light & Power Reply (7/27/09)

Staff Response

As mentioned in the comments, utilities are already afforded the right to petition the commission to revise their rate structures in accordance with 3 AAC 48.500 - 3 AAC 48.560. The proposed language is designed to clarify the standard a utility would have to meet create a new rate design for net metering consumers. Staff believes the proposed language offers a protection to net metering consumers by requiring the utility to demonstrate that the effect of net metering is both “adverse” and “material” to consumers that do not participate in net metering. This standard would not be articulated if this provision were not included in the regulation. The utilities are generally well aware of their existing rights and abilities and removing the proposed language would not create an “out of sight, out of mind” scenario. Staff believes this provision should actually provide a higher degree of certainty to net metering participants than its absence. Staff therefore recommends the commission retain the proposed language.

Revised Regulation

No changes

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

3 AAC 50.940. Interconnection of consumer generation facilities. The commission may adopt by regulation additional reasonable safety, power quality, and interconnection requirements for consumer generation systems if the commission considers the requirements to be necessary to protect public safety and system reliability.

Comments

- 3 AAC 50.940 – It must be clear that absent comprehensive commission established standards, the utilities will set their own standards. The Alaska Power Authority changes to 3 AAC 50.910(a)(2) help to address this issue, when read in conjunction with the above language. - Municipal Light & Power (7/13/09)

Staff Response

Staff agrees that utilities have generally adopted their own interconnection standards. In the absence of commission approved standards, this appears to be appropriate. The proposed language does not hinder their ability to do so in the absence of commission approved standards.

Revised Regulation

No changes

R-09-1 – Net Metering Regulations
Summary of Comments & Staff Recommendations

Proposed Regulation

3 AAC 50.949. Definitions. *Unless the context indicates otherwise, in 3 AAC 50.900 – 3 AAC 50.940*

(1) *“average demand” of a utility is the number of kilowatts determined by dividing the total retail sales of the utility, measured in kilowatt-hours, for a calendar year*

(A) with 365 days, by 8,760 hours, or;

(B) with 366 days, by 8,784 hours.

Comments

- 3 AAC 50.949(1) – This should be phrased as average retail demand. - Alaska Power Association (7/13/09)

Staff Response

As previously discussed, Staff concurs with changing “average demand” to “average retail demand”. Additional editorial changes were made to add a space between “365” and “days”.

Revised Regulation

3 AAC 50.949. Definitions. *Unless the context indicates otherwise, in 3 AAC 50.900 – 3 AAC 50.940*

(1) *“average retail demand” of a utility is the number of kilowatts determined by dividing the total retail sales of the utility, measured in kilowatt-hours, for a calendar year*

(A) with 365 days, by 8,760 hours, or;

(B) with 366 days, by 8,784 hours.

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Proposed Regulation

(2) "biomass energy" means energy, excluding fossil fuels, derived from plant matter such as trees, grasses, agricultural crops or animal matter including fish;

(3) "consumer" means a customer of an economically regulated electric utility who consumes the electricity purchased from the utility;

(4) "consumer-generated electricity" means electricity that is generated by a consumer participating in a net metering program;

Comments

- 3 AAC 50.949(4) – This may not need a definition. The phrase should be "consumer generated electric energy" - Municipal Light & Power (7/13/09), Chugach Electric Association (7/13/09)

Staff Response

Staff believes it is appropriate to change "electricity" to "electric energy" in section 4. The definition is not overly redundant and provides further clarity, therefore Staff recommends it remain.

Revised Regulation

(2) "biomass energy" means energy, excluding fossil fuels, derived from plant matter such as trees, grasses, agricultural crops or animal matter including fish;

(3) "consumer" means a customer of an economically regulated electric utility who consumes the electricity purchased from the utility;

(4) "consumer-generated ~~electricity~~ electric energy" means ~~electricity~~ electric energy that is generated by a consumer participating in a net metering program;

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Proposed Regulation

None

Comments

- {NEW} 3 AAC 50.949(5) – A definition of “consumer generation system” should be added. It should mean a system that meets the requirements of 3 AAC 50.920. Also, in the first sentence of 3 AAC 50.920, the word, “consumer” should be deleted to prevent a circular reference. - Alaska Power Association (7/13/09)

Staff Response

Staff believes that section 920 of the proposed regulations explains the meaning of consumer generation system by setting forth eligibility requirements. A definition, therefore, is unnecessary.

Revised Regulation

None

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Summary of Comments & Staff Recommendations

Proposed Regulation

(5) “consumer premises” means all buildings and associated grounds owned or leased by a consumer at a single location where an electric utility provides service through one or more utility meters;

(6) “economic regulation” means that the commission’s exercise of jurisdiction extends to matters concerning rates and charges for public utility services,

(7) “electric system” means an integrated electrical system that includes at least generation, and distribution;

(8) “eligible facility” means a facility that uses energy derived from one or more of the following sources:

(A) solar photovoltaic and solar thermal energy;

(B) wind energy;

(C) biomass energy;

(D) hydroelectric energy;

(E) geothermal energy;

(F) hydrokinetic energy;

(G) ocean thermal energy;

(H) landfill gas or biogas produced from organic matter, wastewater, anaerobic digesters, or municipal solid waste; and

(I) other sources as approved by the commission that generally have similar environmental impact.

(9) “equipment package” means a group of components connecting an electric generator to a utility meter, including all interface equipment and the interface equipment’s controls, switchgear, inverter, and other interface devices;

Comments

- 3 AAC 50.949(9) – “Utility meter” should be replaced with “utility’s electric distribution system”. Although the meter may be the physical point of interconnection, the ultimate need for the components of the equipment package is to protect the utility’s distribution system. - Alaska Power Association (7/13/09)

Staff Response

Staff concurs with the APA suggestion that “utility meter” be replaced with “utility’s electric distribution system”. Additionally, APA suggested changes to the definition of “eligible facility” that further clarifies the intent of the language. Staff agrees with the proposed changes.

Revised Regulation

(5) “consumer premises” means all buildings and associated grounds owned or leased by a consumer at a single location where an electric utility provides service through one or more utility meters;

(6) “economic regulation” means that the commission’s exercise of jurisdiction extends to matters concerning rates and charges for public utility services,

(7) “electric system” means an integrated electrical system that includes at least generation, and distribution;

(8) “eligible facility” means a facility that ~~uses~~ **produces electric** energy derived from one or more of the following sources ~~to generate electricity~~:

(A) solar photovoltaic and solar thermal energy;

(B) wind energy;

(C) biomass energy;

(D) hydroelectric energy;

(E) geothermal energy;

(F) hydrokinetic energy;

(G) ocean thermal energy;

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(H) landfill gas or biogas produced from organic matter, wastewater, anaerobic digesters, or municipal solid waste; and

(I) other sources as approved by the commission that generally have similar environmental impact.

(9) "equipment package" means a group of components connecting an electric generator to a ~~utility meter~~ utility's electric distribution system, including all interface equipment and the interface equipment's controls, switchgear, inverter, and other interface devices;

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Proposed Regulation

(10) "excess consumer-generated electricity" means the amount of consumer-generated electricity in excess of the consumer's consumption from the consumer generation system during a monthly billing period, as measured at the electric utility's meter;

(11) "geothermal energy" means energy generated from heat stored in the earth, or the collection of absorbed heat derived from underground;

(12) "hydroelectric energy" means energy generated by hydropower, the production of power through the use of gravitational force of falling or flowing water;

Comments

- 3 AAC 50.949(12) – A simplified definition should be used because the current text appears fragmented and technically inaccurate. A suggested definition is, "hydroelectric energy" means energy generated from falling or flowing water. - Alaska Power Association (7/13/09), Chugach Electric Association (7/13/09)

Staff Response

Staff agrees that the proposed revisions simplify and clarify the definition of hydroelectric energy. Additional revisions of "electricity" to "electric energy" were also suggested by APA.

Revised Regulation

(10) "excess consumer-generated ~~electricity~~ electric energy" means the amount of consumer-generated ~~electricity~~ electric energy in excess of the consumer's consumption from the consumer generation system during a monthly billing period, as measured at the electric utility's meter;

(11) "geothermal energy" means energy generated from heat stored in the earth, or the collection of absorbed heat derived from underground;

(12) "hydroelectric energy" means energy generated ~~by hydropower, the production of power through the use of gravitational force of~~ from falling or flowing water;

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Proposed Regulation

(13) "hydrokinetic energy" means energy generated from waves or directly from the flow of water in ocean currents, tides, or inland waterways;

(14) "independent electric system" means an electric system that is not interconnected with any other electric system;

(15) "inverter" means a device that converts direct current power into alternating current power to ensure the generated power is compatible with power generated by an electric utility;

(16) "nameplate capacity" means the maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer.

(17) "net electricity" means the difference, positive or negative, as metered by the electric utility for a specified period, between:

(A) the amount of electricity used by a consumer participating in a net metering program supplied by the utility; and

(B) the amount of consumer-generated electricity supplied to the electric utility;

Comments

- 3 AAC 50.949(17) – References to energy "used" by a consumer should be removed. Additionally, revisions should be made to eliminate the need to account for the possibility of a "negative" quantity of net electric energy. The following language is suggested, "net electric energy means as metered by the electric utility for a specified period and expressed in kilowatt hours, (A) the amount by which the quantity of electric energy supplied by the utility to the consumer exceeds the quantity of electric energy supplied by the consumer to the utility; or (B) the amount by which the quantity of electric energy supplied by the consumer to the utility exceeds the quantity of electric energy supplied by the utility to the consumer." - Alaska Power Association (7/13/09), Chugach Electric Association (7/13/09)

Staff Response

Staff agrees with APA's comments. Similar changes were made in 3 AAC 52.930(a) above.

Revised Regulation

(13) "hydrokinetic energy" means energy generated from waves or directly from the flow of water in ocean currents, tides, or inland waterways;

(14) "independent electric system" means an electric system that is not interconnected with any other electric system;

(15) "inverter" means a device that converts direct current power into alternating current power to ensure the generated power is compatible with power generated by an electric utility;

(16) "nameplate capacity" means the maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer;

(17) "net ~~electricity~~ **electric energy**" means ~~the difference, positive or negative~~, as metered by the electric utility for a specified period **and expressed in kilowatt hours, between:**

(A) the amount ~~of electricity used by a consumer participating in a net metering program supplied by the utility; and~~ **by which the quantity of electric energy supplied by the utility to the consumer exceeds the quantity of electric energy supplied by the consumer to the utility; or**

(B) the amount ~~of consumer-generated electricity supplied to the electric utility; by which the quantity of electric energy supplied by the consumer to the utility exceeds the quantity of electric energy supplied by the utility to the consumer;~~

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Summary of Comments & Staff Recommendations

Proposed Regulation

(18) "net metering" means measuring the amount of net electricity for the applicable billing period;

Comments

- 3 AAC 50.949(18) – The phrase “as described in 3 AAC 50.930(a)” should be added as that subsection provides the fundamental explanation of how “net electric energy” functions in net metering. - Alaska Power Association (7/13/09)

Staff Response

Staff agrees with APA's comments.

Revised Regulation

(18) "net metering" means measuring the amount of net ~~electricity~~ electric energy as described in 3 AAC 50.930(a) for the applicable billing period;

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Summary of Comments & Staff Recommendations

Proposed Regulation

(19) "net metering program" means a program administered by an electric utility that allows a consumer owning, or leasing, and operating a consumer generation system to

(A) generate electricity primarily for the consumer's own use;

(B) supply consumer-generated electricity to the electric utility; and

(C) receive a credit under 3 AAC 50.930 if net metering results in excess consumer-generated electricity during a billing period;

(20) "non-firm power rate" means the rate updated quarterly in an electric utility's tariff in accordance with 3 AAC 50.770(d);

Comments

- 3 AAC 50.949(20) – This definition should be changed to allow for the possibility of the commission approving a non-firm energy rate that differs from the average non-firm rate specified under 3 AAC 50.770(d), such as marginal or time-of-day energy rates. - Alaska Power Association (7/13/09), Chugach Electric Association (7/13/09)

Staff Response

Staff agrees with APA's comments. The commission may, in the future, allow the creation of new rate structures for all customer classes. This addition will allow the regulations to continue to function as intended in such an environment. Again, Staff does not recommend changing "non-firm power rate" to "non-firm electric energy rate" for the sake of consistency with existing regulations.

Revised Regulation

(19) "net metering program" means a program administered by an electric utility that allows a consumer owning, or leasing, and operating a consumer generation system to

(A) generate ~~electricity~~ **electric energy** primarily for the consumer's own use;

(B) supply consumer-generated ~~electricity~~ **electric energy** to the electric utility; and

(C) receive a credit under 3 AAC 50.930 if net metering results in excess consumer-generated ~~electricity~~ **electric energy** during a billing period;

(20) "non-firm power rate" means the rate updated quarterly in an electric utility's tariff in accordance with 3 AAC 50.770(d) or such other non-firm power rate as may be authorized by the commission;

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Summary of Comments & Staff Recommendations

Proposed Regulation

(21) “non-generation related consumer charges” refers to all utility charges excluding the per kilowatt-hour rate based on the consumer’s metered consumption of electricity;

Comments

- 3 AAC 50.949(21) – The term “non-generation related consumer charges” is confusing and unnecessary and can be deleted. - Alaska Power Association (7/13/09), Municipal Light & Power (7/13/09), Chugach Electric Association (7/13/09)
- 3 AAC 50.949(21) – This language should be changed to read, “refers to all distribution charges, excluding the per kilowatt-hour rate based on the consumer’s metered consumption of electricity.” - Golden Valley Electric Association, Inc. (7/13/09)

Staff Response

Staff altered the wording in the proposed 3 AAC 50.930(c) to remove the phrase, “non-generation related consumer charges”. Therefore, this definition is no longer necessary.

Revised Regulation

~~*(21) “non-generation related consumer charges” refers to all utility charges excluding the per kilowatt-hour rate based on the consumer’s metered consumption of electricity;*~~

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Summary of Comments & Staff Recommendations

Proposed Regulation

(22) “ocean thermal energy” means the conversion of energy arising from the temperature difference between warm surface water of oceans and cold deep-ocean current into electrical energy or other useful forms of energy;

(23) “retail sales” means sales of electricity to the end-use consumer, exclusive of any wholesale sales;

Comments

- 3 AAC 50.949(23) – The phrase “exclusive of any wholesale sales” can be omitted. - Municipal Light & Power (7/13/09)

Staff Response

Staff agrees that the definition of “retail sales” explicitly excludes wholesale sales. However, this definition makes a clear distinction that may be necessary for the average layman reading these regulations. Therefore, Staff recommends retaining the existing wording. Changes were made in numbering to reflect the removal of the current definition number 21.

Revised Regulation

~~(221)~~ “ocean thermal energy” means the conversion of energy arising from the temperature difference between warm surface water of oceans and cold deep-ocean current into electrical energy or other useful forms of energy;

~~(232)~~ “retail sales” means sales of electricity to the end-use consumer, exclusive of any wholesale sales;

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Proposed Regulation

(24) "solar photovoltaic energy" means the conversion of sunlight into electricity through a photovoltaic cell, a nonmechanical device usually made from silicon alloys;

(25) "solar thermal energy" means a technology for harnessing solar energy for thermal energy;

(26) "switchgear" means the combination of electrical disconnects, fuses, or circuit breakers used to

(A) isolate electrical equipment; and

(B) de-energize equipment to allow work to be performed or faults downstream to be cleared.

Comments

- 3 AAC 50.949(26) – The phrase "or faults downstream to be cleared" is unnecessary and can be deleted and the definition should be expanded to more fully describe the function of switchgear. The following addition is suggested, "(C) provide equipment overcurrent protection; and (D) provide a lockable visible-break isolating device." - Alaska Power Association (7/13/09), Municipal Light & Power (7/13/09)

Staff Response

Staff concurs with removing the reference to "faults downstream to be cleared". The additional changes suggested by APA contain issues that are being more fully developed in our interconnection regulations. Staff does not feel comfortable adding these changes into the proposed net metering regulations, but would rather they be addressed, as necessary in the interconnection regulations. Changes were made in numbering to reflect the removal of the current definition number 21.

Revised Regulation

(2423) "solar photovoltaic energy" means the conversion of sunlight into electricity through a photovoltaic cell, a nonmechanical device usually made from silicon alloys;

(2524) "solar thermal energy" means a technology for harnessing solar energy for thermal energy;

(2625) "switchgear" means the combination of electrical disconnects, fuses, or circuit breakers used to

(A) isolate electrical equipment; and

(B) de-energize equipment to allow work to be performed ~~or faults downstream to be~~ cleared.