

Standby Service and Solar Power Questions and Answers

- Q1.** FEUS is introducing Standby service for the residential and general service classes. What is Standby service?
- A1.** Standby service provides reliability to customers who generate all or a portion of their energy needs. The self-generating customers remain connected to the FEUS power grid, which is standing by to supplement or backup power needs at a moment's notice.
- Q2.** Who does Standby service apply to?
- A2.** Standby service applies to customers with intermittent non-dispatchable generation. This type of generation requires FEUS to back up and supplement energy needs daily. This type of generation includes, but is not limited to, solar power and wind power.
- Standby service also applies to residential and general service customers with 'dispatchable' generation, meaning that customers can turn it on at any time. Dispatchable generation may include generators and reciprocating engines that, under normal conditions, operate on a continuous basis. FEUS provides back up service to these customers infrequently.
- Q3.** How does the Standby service work?
- A3.** To ensure a highly reliable supply of power to meet the needs of each customer, FEUS must reserve and maintain sufficient capacity on the system. Capacity is a measure of available generation and grid access to ensure that power will flow to the customer on a moment's notice. This capacity benefits the customer whether the customer uses any energy or not. FEUS must invest, maintain, and operate this capacity. Standby service simply quantifies and recovers the cost of providing reliability to the customer.
- Q4.** Why is FEUS introducing Standby service at this time?
- A4.** Customer interest in self-generation has been increasing throughout the electric industry across the United States. Reasons for this include improvements in technology, decreases in investment costs, investment subsidies, and low cost natural gas prices. As more customers choose to self-generate, the cost of reliability unduly shifts from customers with generation to customers without generation. This cost shifting is a direct result of legacy rate designs that did not fully consider the growth in self-generation. Standby service minimizes this cost shifting by quantifying the value of reliability to a customer. Standby service improves the equitable recovery of costs among customers who choose to generate compared to those customers who do not.
- Q5.** Is this equity issue unique to FEUS?
- A5.** No, this is an industry-wide issue in multiple states, and as self-generation increases, the inequity is amplified. The issue is being examined and addressed by regulatory commissions and other self-regulated utilities. Various industry sources have published articles, papers, and manuals on this issue. The National Association of Regulatory Utility Commissioners recently published a manual regarding distributed energy resources, rates design, and compensation.

Standby Service and Solar Power Questions and Answers

Page 2

- Q6.** Do other utilities provide Standby service?
- A6.** Yes, Standby service has been around for many years. Historically, Standby service was offered to larger commercial and industrial customers who installed their own generation. More recently, the Standby service is being used to address smaller customers that self-generate and need standby service and reliability on a daily basis. Standby service is offered by utilities in New Mexico and across the country.
- Q7.** If I am an existing residential customer and own solar panels, how will FEUS' proposed Standby service impact my monthly electricity bill?
- A7.** Customers taking service under the Net Metering tariff will continue to receive service under the Net Metering tariff. These customers have been 'grandfathered' into the existing Net Metering tariff. The Standby service will not affect existing Net Metering customers.
- Q8.** If I am a residential customer and I am considering a solar panel investment, how will FEUS' proposed Standby service impact my monthly electric bill?
- A8.** **Bill Examples are in the Electric Rate Study final report Page 5-5.**
- Q9.** If I am a commercial customer and own solar panels, how will FEUS' proposed Standby Rider impact my monthly electricity bill?
- A9.** Customers taking service under the Net Metering tariff will continue to receive service under the Net Metering tariff. These customers have been 'grandfathered' into the existing Net Metering tariff. The Standby service will not affect existing Net Metering customers.
- Q10.** If I am a commercial customer and I am considering a solar panel investment, how will FEUS' proposed Standby Rider impact my monthly electric bill?
- A10.** **Bill Examples are in the Electric Rate Study final report Sections 5-6 through 5-8.**
- Q11.** When my solar panels produce energy, aren't I avoiding the cost of electricity from FEUS?
- A11.** When your solar panels produce energy, you avoid a portion of utility costs that are variable in nature. For FEUS, these costs are primarily related to fuel and purchased power. Also, a certain amount of electricity is lost as it is transported through the grid. When your solar panels produce energy, you avoid these losses. However, a significant portion of the costs that support reliability to the benefit of the customer are not avoided. These costs are fixed and remain a cost to the utility regardless of the solar panels' energy output.

Standby Service and Solar Power Questions and Answers

Page 3

Q12. Please explain the concept of reliability.

A12. Reliability means that the electricity is there if you turn the light on, every minute of every day. According to the North American Electric Reliability Corporation (NERC), the organization tasked with ensuring the reliability of the North American bulk power system, “reliability” is defined as the ability to meet the customers’ electricity needs, even when unexpected equipment failures or other conditions reduce the amount of available power supply. Reliability is a measure of the capability of electricity networks to withstand sudden disturbances or unanticipated losses in system components, whether caused by natural or man-made events. Reliability also means maintaining sufficient resources to provide customers with round-the-clock delivery of electricity at the proper voltage and frequency.

Q13. What types of utility costs support reliability?

A13. Examples of utility costs that support reliability include generation capacity associated with the FEUS’ four power plants, power lines, substations, and transformers which connect customer’s homes and businesses to the power grid. Without proper design and maintenance of these components, reliability would decrease and there could be outages, including rolling brownouts and blackouts.

Q14. Why don’t my solar panels provide this reliability?

A14. Solar panels only produce energy when the sun is shining. Most residential rooftop solar panels are fixed in place and do not track the sun. The fixed solar panels produce their maximum watts around noon, when the sun’s rays are the strongest, unless clouds roll over. Typically, residential customers use the most power in the late afternoon and evening when they are at home. Unless the customer has installed energy storage or a generator in addition to the solar panels, the customer will require Standby service from the local utility to ensure electrical service all hours of the day.

Q15. What portion of my residential bill is associated with reliability?

A15. For the typical residential customer using on average 637 kilowatt hours (kWh) per month, approximately 57% of the monthly bill is associated with reliability. The cost of reliability includes owning, operating and maintaining generation, transmission, distribution infrastructure plus billing, collection, and other services offered for the benefit of customers. The cost associated with reliability and customer service totals approximately \$41 per month. These costs are fixed and do not vary with customer usage.

Q16. How do solar panels benefit the system?

A16. Solar panel generation avoids burning carbon based fuels. In addition, the solar panels may lower the capacity FEUS needs to reliably cover the FEUS system peak demand. The monthly FEUS system peak varies from afternoon to evening, depending on the season. The contribution of solar in meeting the FEUS system peak is highly variable depending on numerous factors including weather, installed technology, and the time of the FEUS system peak. These factors have been considered in the development of Standby service.

Standby Service and Solar Power Questions and Answers

Page 4

Q17. Are these benefits considered in the development of the Standby service rate?

A17. Yes. When the Standby service rate was developed, the reduction in peak demand was considered and incorporated into the rate. Because the power being generated is already at the source of demand, there are no losses across the transmission and distribution systems. This was also considered and incorporated into the rate.

Q18. What is FEUS' position on the self-generation of renewable power such as solar?

A18. FEUS believes that self-generation is the customer's personal choice and FEUS supports that choice while minimizing subsidization among and within customer classes. FEUS is neutral on distributed generation and does not have a policy to promote or prevent the growth of distributed generation. FEUS' goal is to provide fair and equitable rates to all customers.

Q19. If I am interested in renewable energy options such as solar or wind, what are my choices?

A19. As a customer, if you choose to self-generate, the FEUS' proposed Standby service rate structure will support your choice.

For customers who do not want to generate their own power, but do want to purchase renewable energy, FEUS can support that choice too. Currently, FEUS has a Renewable Tariff for residential and general service customers. This Renewable Tariff allows the customer to purchase renewable energy in 100 kWh blocks, and the cost of that renewable energy is passed through to the customer.

In the future, customers may be able to participate in a community solar project. FEUS is currently investigating a community solar project, in response to a 2015 customer survey which favorably supported the idea.