



United States  
Department of  
Agriculture

## Rural Development



Rural Utilities Service  
Electric Programs

# Leveraging Smart Grid Investments for Rural Broadband Deployment

*Broadband Opportunities Council*

# RUS Electric Program –

The RUS Electric Program has a \$5.5 billion annual loan budget for financing electrical infrastructure in rural areas, including smart grid initiatives.

- The Electric Program, thru the funding of:
  - Smart grid initiatives;
  - Communications facilities for energy management; and
  - Fiber to the meter for increased energy efficiency initiatives ...
- ...can aid in the **support and deployment** of **broadband** through the use of those facilities implemented for smart grid purposes.

# RUS Electric Program – Smart Grid Investment

- It is the policy of the RUS to encourage partnerships and cooperation between borrowers to meet a host of rural needs. The Electric Program (EP) and Telecommunications Program (TP) will work together to find innovative ways facilitate joint efforts between EP and TP borrowers to provide smart grid and broadband capabilities in shared service areas.
- Smart grid and broadband services are separate and distinct loan purposes. It is the responsibility of the RUS to exercise due care to ensure that statutory boundaries between programs are respected and unnecessary duplication of federal funding avoided, in cases where a converged fiber infrastructure can be used for multiple purposes.
- It is also the policy of the USDA to promote the deployment of broadband services in rural areas.

# RUS Electric Program – Smart Grid Investment

- The Electric Program (EP) makes loans to borrowers for fully integrated “smart grid” purposes, including fiber connections directly to the meters of electric service consumers.
- It is the policy of the RUS to promote smart grid deployment among all electric utilities serving rural consumers.
- Smart Grid capabilities can improve reliability, promote energy efficiency, enhance grid security, advance safety, provide security, reduce pollution and restrain consumer electricity costs.

# RUS Electric Program – Smart Grid Investment

- The EP has financed infrastructure needed to connect electric infrastructure with communications and intelligent network capabilities and to facilitate the internal communications of the electric utility.
- Over time, those connections have grown more robust, useful and extensive. This growing level of communications and network intelligence is essential to modern electric utility management.
- EP borrowers have sought and continue to seek to enhance the use of fiber in smart grid deployments (or proposed deployments) to offer their customers additional services such as high speed consumer “broadband” services.
- RUS views this trend as a positive development.

# RUS Electric Program – Smart Grid Investment

- While the EP can fully fund smart grid infrastructure, it cannot solely finance the delivery of consumer broadband services.
- If an EP borrower (or applicant) were to seek EP funding solely for the purpose of providing broadband services (with no smart grid elements); the application would be rejected by the EP because the application seeks to use EP funds to finance an ineligible purpose. The borrower should be referred to the TP for further consultation.
- Similarly, in cases where EP borrowers seek to provide consumer broadband services in addition to smart grid capabilities, the borrower cannot use EP funding for the enhancements to the smart grid infrastructure necessary to deliver consumer broadband services. The borrower can self-fund, or use non-EP financing for the enhancements necessary to provide consumer broadband services but not necessary for smart grid capabilities.

# RUS Electric Program – Smart Grid Investment

- EP and TP borrowers are strongly encouraged to **collaborate and cooperate** in efforts to deliver smart grid and high speed broadband services to rural consumers within the territories served by both borrowers.
- Constraints on EP smart grid funding may be necessary for fiber to the meter (premises) smart grid projects that contemplate broadband services in areas where there are existing RUS TP borrowers.