



Before the  
US Department of Commerce  
National Telecommunications Information Agency

And

US Department of Agriculture  
Rural Utilities Service  
Washington, D.C. 20554

In the Matter of ) Docket No. 090309298-9299-01  
The American Recovery and Reinvestment Act )  
Broadband Initiatives )

**COMMENTS OF THE  
ASSOCIATION OF COMMUNICATION ENGINEERS**

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**COMMENTS OF THE  
ASSOCIATION OF COMMUNICATION ENGINEERS**

**April 10, 2009**

**Executive Summary**

The Association of Communication Engineers (ACE) recommends that NTIA and RUS require the use of registered, Professional Engineers, or equally qualified employees of any grantees or borrowers, to provide engineering services consistent with State engineering registration statutes for projects funded by NTIA or RUS grant or loan funds as required by the American Recovery and Reinvestment Act of 2009.

The ACE recommended action would accomplish the following public policy objectives of the Recovery Act as further described herein:

- Promote Public Safety.
- Enhance the Reliability of the Nation's broadband infrastructure.
- Provide efficient project management and progress reporting thereby enforcing timelines and budgets.
- Enforce fair and open competitive bidding and contract administration procedures.
- Improve administrative efficiency of funding agencies and accelerate project timelines by delegating contract administration duties to seasoned and responsible professionals.
- Provide post-award certification of compliance with important safety codes and the performance of broadband infrastructure funded by the Recovery Act.
- Enhance transparency because registered, Professional Engineers are bound by the laws of all 50 states to follow a strict code of ethics including avoiding conflicts of interest.
- Provide accountability because registered, Professional Engineers are subject to fine and license revocation if they do not perform up to recognized standards of care.

**COMMENTS OF THE  
ASSOCIATION OF COMMUNICATION ENGINEERS**

The following comments of the Association of Communications Engineers (ACE) are offered as a response to the Joint Request for Information (RFI) released by the National Telecommunications Information Agency (NTIA) and the Rural Utilities Services (RUS) agencies, and to supplement information previously submitted by ACE including the public statement made by ACE at the March 24, 2009 NTIA/RUS Roundtable. A copy of our March 24 statement is appended hereto. These comments supersede and replace comments dated March 6, 2009 that were submitted by ACE prior to release of the RFI. In general, these comments address the agency's broad questions regarding project success, viability, sustainability, accountability and transparency. In particular, these comments are a response to NTIA questions 12. a. "What specific programmatic elements should both agencies adopt to ensure that grant funds are utilized in the most effective and efficient manner?", 14. a. "What measurements can be used to determine whether an individual proposal has successfully complied with the statutory obligations and project timelines?", and 15 "Please provide comment on any other issues that NTIA should consider in creating BTOP within the confines of the statutory structure established by the Recovery Act.", and RUS question 2 "In what ways can RUS and NTIA best align their Recovery Act broadband activities to make the most efficient and effective use of the Recovery Act broadband funds?"

The Association of Communication Engineers<sup>1</sup> (ACE) consists of over 30 small to medium size professional engineering companies that provide communication engineering services throughout the United States. As engineers and consultants, ACE member firms have played an important role in the construction and continued improvement of the country's telecommunications infrastructure. As a group, ACE focuses on the special needs of rural telecommunications companies, and especially those companies that utilize funding provided through the USDA Rural Utilities Service (RUS), part of USDA's Rural Development program. Individual ACE members also provide engineering and consulting services to municipalities, regional and

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<sup>1</sup> Additional information is available on the ACE web site at [www.ace-engineers.com](http://www.ace-engineers.com)

national telephone companies, cable television companies, wireless service providers and many other entities involved in the telecommunications and internet service provider industries.

Since the beginning of the Rural Electrification Act, professional engineers have supported the mission of the federal government in extending essential services to homes throughout rural America. When the telecommunications program was added to the mission of the REA in the 1950s, Professional Engineers provided critical assistance to telephone companies throughout rural America. The engineer supports the overall project, from the definition of requirements and establishing timelines through formalized bidding, observation of construction, progress reporting, testing and certification of compliance with the specifications and terms of the contract. The engineer helps assure the project funds are used for the purposes intended and that the finished product meets the needs of both the borrower and the Federal government.

As part of the rules for administering broadband grant and loan funds of the American Recovery and Reinvestment Act of 2009 (Recovery Act), ACE recommends that both NTIA and RUS require the use of independent, registered Professional Engineers to: 1) Perform engineering services for the grantees or borrowers, and 2) provide for certification to the government that the projects constructed with Recovery Act funds meet the intent of the program. These are roles that engineers perform throughout the country in many fields, and in many industries.

Current RUS program regulations specify that borrowers must utilize the services of an independent, state licensed, and properly insured professional engineer or obtain RUS certification of a member of the borrower's staff. The engineers may not be affiliated with, or represent, a contractor, vendor or manufacturer who may provide labor, materials, or equipment to the borrower<sup>2</sup>. This rule enables the engineer to make unbiased judgments and recommendations, and provides the funding agency with additional assurances of overall project performance and accountability. At the bottom line, the high quality of the installed infrastructure benefits the borrower or grantee directly and enhances loan security for the funding agency.

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<sup>2</sup> 7CFR1753 Subpart B Section 1753.15

Professional Engineers are regulated by state law in all 50 states and are bound by one or more codes of ethics. If an engineer fails to adhere to these high ethical standards, the states may levy a fine or revoke the engineer's authorization to practice and prohibit that individual from performing further engineering work. By mandating the use of Professional Engineers, the government is able "to safeguard life, health, and property and to promote the public welfare<sup>3</sup>". In the rare instance where an injury or death occurs on a project, or when property is damaged, adherence to state laws relating to the use of Professional Engineers provides the borrower with added protections and helps preserve the investment made by the Federal government.

Often the engineer provides project management and contract administration services, and serves as the "eyes and ears" of the grantee or borrower. The engineer certifies the work and provides a key interface between the government, the grantee or borrower, and the contractor. The use of Professional Engineers helps ensure high levels of accountability and increased transparency in the use and application of stimulus funds as required by the Recovery Act.

The use of Professional Engineers also allows NTIA and RUS to delegate contract administration functions to seasoned and responsible professionals at the project level thereby streamlining the process, reducing resources required by the funding agencies, reducing the time required for administrative approvals and accelerating project timelines.

ACE members understand that projects which involve the construction of cable, shelters, buildings and towers are fundamentally different than projects which only involve the acquisition and configuration of commercial-off-the-shelf equipment. As an example, for cable construction, public safety issues must be considered both before and during construction. If a fiber cable is installed in an aerial configuration, the public may be exposed to risks associated with improper installation, inadequate support structures or inadequate clearance from electrical power conductors. Large scale underground construction requires the use of heavy equipment and often involves placement of cable or other buried facilities in hazardous locations or in close proximity to underground pipelines, electrical facilities, and other utilities or equipment. Any

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<sup>3</sup> "Model Law", National Council of Examiners for Engineering and Surveying", [www.ncees.org](http://www.ncees.org)

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project which requires the use of public rights-of-way creates additional concerns relative to the safety of the public, the protection of both existing and new property, and coordination with Federal, State, and locally funded highway projects. Both aerial and underground construction of communication lines require coordination with proximate electric supply lines per the National Electrical Safety Code (NESC). Also, telephone and cable TV facilities entering commercial and residential buildings and radio and television receiving equipment installed on such buildings are required to be bonded, grounded and meet other requirements of the National Electrical Code (NEC).

As broadband technology evolves it is being used more and more to deliver critical services such as 911. The reliability of broadband technology depends on comprehensive system design and implementation to achieve the integrity necessary to deliver critical services.

Through our long association with RUS and the REA program, ACE members are well experienced with projects in rural areas, where distances between subscribers are significantly greater, power may be less reliable, and environmental conditions require special considerations. ACE members are familiar with the Buy American provisions of the Rural Electrification Act which are similar to the Buy American provisions of the Recovery Act. Our members have extensive experience helping rural companies understand and comply with rules and regulations associated with federally funded projects including sensitive environmental issues. ACE has also been an active participant in and sponsor of the Rural Standards Initiative, RSI ([www.ruralstandards.org](http://www.ruralstandards.org)). RSI is a public-private collaboration that seeks to facilitate the evolution of technical resources needed to provide advanced communications infrastructure and services in rural areas.

ACE also concurs in and endorses the comments of the National Society of Professional Engineers (NSPE) and the American Council of Engineering Companies (ACEC) which are appended hereto for the convenience of NTIA and RUS.

ACE understands the urgency of implementing efficient rules that can quickly translate to jobs and construction. We also understand the importance of ensuring success of investments, and

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accountability for the stimulus funds. For the reasons enumerated above, ACE urges that the NTIA and RUS include rules requiring the use of registered, Professional Engineers, or equally qualified employees of any grantees or borrowers, for projects funded by NTIA or RUS grant or loan funds consistent with State engineering registration statutes as required by the Recovery Act<sup>4, 5</sup>.

Respectfully submitted,

Association of  
Communications Engineers

By: /s/ Gregory D. Rise

Gregory D. Rise

*Its Secretary/Treasurer*

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<sup>4</sup> See American Recovery Reinvestment Act of 2009, Title VI, Section 6001 (e) “...an applicant shall - ...” (4) “...demonstrate, to the satisfaction of the Assistant Secretary, that it is capable of carrying out the project or function to which the application relates in a competent manner in compliance with all applicable Federal, State, and local laws;...”, (7) “...provide such assurances and procedures as the Assistant Secretary may require to ensure that grant funds are used and accounted for in an appropriate manner. (emphasis added)

<sup>5</sup> See American Recovery Reinvestment Act of 2009, Title VI, Section 6001 (i) “The Assistant Secretary - ... (3) shall establish appropriate mechanisms to ensure appropriate use and compliance with all terms of any use of funds made available pursuant to this section; (emphasis added).