Steven L. Beshear Governor

Leonard K. Peters Secretary **Energy and Environment Cabinet** 



Commonwealth of Kentucky **Public Service Commission** 

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psc.ky.gov

July 11, 2013

David L. Armstrong Chairman

James W. Gardner Vice Chairman

> **Linda Breathitt** Commissioner

PARTIES OF RECORD

RE:

Informal Conference for Case No. 2013-00119

Enclosed please find a memorandum that has been filed in the record of the above-referenced cases. Any comments regarding the contents of the memorandum should be submitted to the Commission within seven days of receipt of this letter. Any questions regarding this memorandum should be directed to Ron Handziak of the Commission Staff at 502-782-2652.

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tive Director

**Attachments** 



#### **INTRA-AGENCY MEMORANDUM**

### **KENTUCKY PUBLIC SERVICE COMMISSION**

TO:

Main Case File - Case No. 2013-00119

FROM:

Ronald Handziak, Team Leader (

DATE:

July 11, 2013

RE:

Informal Conference of June 24, 2013

Pursuant to the Commission's June 18, 2013 Order, on June 24, 2013, representatives of Nolin Rural Electric Cooperative Corporation ("Nolin"), Fort Knox military base ("Fort Knox") and Commission Staff ("Staff") met at the Commission's offices regarding the project for which Nolin is requesting approval for a loan of \$64,000,000. A list of attendees is attached.

Representatives of Fort Knox made a presentation and provided a handout describing the project to install electrical power generating equipment at the base. The presentation discussed the reasons for installing the equipment, and the goals to be achieved by the project. Staff asked several questions related to information included in the presentation and the handout, a copy of which is attached to this memorandum.

There being no other questions or discussion, the meeting adjourned.

Attachments

### COMMONWEALTH OF KENTUCKY

## BEFORE THE PUBLIC SERVICE COMMISSION

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Please sign in:

APPLICATION OF NOLIN RURAL ELECTRIC )	
COOPERATIVE CORPORATION FOR AN )	
ORDER PURSUANT TO KRS 278.300 AND 807	
KAR 5:001, SECTION 11 AND RELATED	CASE NO.
SECTIONS AUTHORIZING THE	2013-00119
COOPERATIVE TO OBTAIN A LOAN NOT TO	
EXCEED THE AMOUNT OF \$64,000,000.00	
FROM THE NATIONAL RURAL UTILITIES )	
COOPERATIVE FINANCE CORPORATION )	

June 24, 2013

NAME

Chang D Mayer

John J. Scott

Molin RECC

Molin RECC

NOLIN RECC

NOLIN RECC

NOLIN RECC

PSC I Engineering

R.J. Dolet

Scott E. Handley

OBJA, Fort Knox

Vince Heusin

Ron Handziak

PSC- FA

Fam Am Cole

PSC

REPRESENTING

PSC

PSC

Nolin RECC

NOLIN RECC

NOLIN RECC

PSC I Engineering

OFW-Energy Office, Fort Knox

Nolin

PSC- FA

Fam Am Cole

PSC: Ugal

## Fort Knox (White Paper)

# Energy Security and Micro Grid Project

## Public Service Commission Communication Plan

## 2/28/2013

<u>Project Goal:</u> Install electrical power generating equipment to allow Fort Knox to operate as an energy island in the event that utility power is lost. This will require 44 MW of new power generating equipment to be installed. The new equipment will be comprised of (16) MW of natural gas generators peak shaving generators, (8) MW of natural gas generators in a combined heat and power (CHP) cycle, and (20) MW of diesel emergency backup generators. The CHP system will produce 64 million Kwh and the peak shaving system 14 million Kwh; roughly 30% of Fort Knox's power requirement.

The CHP natural gas generators will improve the energy efficiency of the facilities they are supplying power, by capturing the waste heat from the generator exhaust and then allowing us the heat to heat or cool the facilities. The CHP generators in conjunction with the natural gas peak shaving generators will be operated to deliver financial savings to fund the energy security needed by the Army. The equipment will be operated to increase the load factor to the LG&E closer to unity (or flat-See graphic below). This will allow for an increase in the available power to the local community during times of peak loads, because Fort Knox will be producing power on site.

The project has been awarded and is in a mobilization stage; with the goal of turning the first generator on in November of 2013. The project will be on line and fully functional in 2014.

The new generators will be integrated in the upgraded Fort Knox 12,700V distribution system which is owned by Fort Knox. The distribution system will be upgraded to enable smart grid functions with automated switches and controls. The upgraded controls will allow the system to adapt to changes in the system that may be caused by storms or changes in the loads.

There are many benefits to Fort Knox and the surrounding community. This project will not only unload the transmission system during the peak demand periods providing extra capacity for the community, but the energy efficiency and clean burning natural gas technologies will reduce the emission to the community.

