



## **NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL**

Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

### **DRAFT Critical Infrastructure Protection Committee Avian Flu Pandemic Scope**

#### **Introduction**

Business continuity planning for the electric sector's critical infrastructure requires preparing for the full range of threats facing the owners and operators. The electric sector has had much experience in planning for Y2k, adverse weather, vandalism, equipment failure, and many other threats. The sector is now challenged by another threat with some familiar characteristics along with some new dimensions.

#### **Avian flu Pandemic**

The new threat is the possibility of an avian flu pandemic caused by the H5NI virus. The virus is currently infecting large populations of birds in Asia. The virus has also infected human beings with fatal results. It is reported to be spreading rapidly and has attracted serious attention by governments throughout Asia and the world.

#### **Pandemic Defined**

A pandemic is defined as being a global outbreak when a new influenza A virus emerges in the human population, resulting in serious illness and death worldwide.

1918	50 million people died worldwide, 500,000 in the United States
1957	70,000 died in the United States
1968	38,000 died in the United States

Health care professionals predict a 100 percent probability to the occurrence of a pandemic in the future but are not confident in predicting with the same level of confidence that the H5N1 virus will reach the pandemic level.

#### **Current Situation**

The H5B1 virus is an especially dangerous strain and closely resembles the 1918 strain. Its mortality rate in human victims in Asia has been 50–70 percent. The 1918 pandemic had rates of infection for the entire population of 10–32 percent. While all the fatal human cases have occurred in Asia, migratory birds carrying H5N1 have been found in Europe (Turkey and Greece) and Australia.

No vaccine has been developed yet for the H5N1 strain and production may not be able to gear up quickly enough to provide widespread protection for large parts of the society.

Increased global interconnectedness has led medical experts to predict a human breakout of H5N1 virus could spread from Asia to North American in three to eight weeks. It would spread rapidly across the continent in a matter of weeks with 25 percent infection rates and a 2 percent mortality rate. Absentee rates of employees for electric sector owners and operators would approach 40–45 percent.

### **Business Continuity Dimensions**

The threat of an avian flu pandemic to business continuity needs to be carefully considered. It is unique from most other threats for the following reasons:

1. **Worldwide Impact** — Unlike many threats that are localized, this has the potential to impact operations simultaneously across North America and around the world.
2. **Duration** — The flu would likely severely disrupt operations for six to eight weeks. Some level of fear would spread through the population prior to the actual outbreak and the actual “sickness” period would be two to four weeks for many individuals. This would then be multiplied as the flu worked its way through the population. If the virus mutates, multiple cycles or waves of illness will sweep through the population.
3. **Mortality** — The predicted two percent mortality would cause severe dislocation for employees who would lose family members and friends. Mortality rates are usually much higher in young children, the elderly, and individuals weakened by other illnesses such as Tuberculosis, diabetes, cancer, and HIV.

The electric sector’s business continuity planning has been very effective. It has been repeatedly successful during hurricanes, ice storms, and terrorism threats. The sector’s plans now need to be enhanced to deal with a threat that has a different set of dimensions.

### **Key Questions**

The following questions should be addressed by the electric sector in anticipation of the avian flu pandemic:

1. If vaccines are available, should the electric sector encourage or require critical employees to be vaccinated?
2. What if some panic occurs in the population and employees do not come to work?
3. Should entities start stockpiling workplace hygiene supplies in anticipation of chaos?
4. Should employees be discouraged from coming to work if they feel ill but are out of sick time?
5. Should “work at home” policies be expanded or initiated in response to the threat?
6. How can the electric sector get the best medical advice to make informed decisions regarding this threat?
7. Are existing human resource policies for sick time or absent time adequate for this threat or should they be reviewed?

8. What information should be collected to identify early impact in a workforce, how should it be shared, and with whom?
9. With this threat, what are the key internal and key external factors to be monitored and managed?
10. What are the expectations of leadership and management in this threat scenario?
11. What does the electric sector need from government or specific agencies?
12. Do existing plans adequately address critical staffing levels for field and control room personnel for this threat?
13. Do existing plans provide for the necessary levels of communications with key customers and an entire customer base?
14. If areas (cities, counties) are quarantined, how will electric operations be able to be maintained?

### **CIPC Strategy**

The objective of this document is to surface the avian flu pandemic threat, frame it for discussion, provide information, and assist the electric sector owners and operators develop plans to manage the newest threat to the sector's business continuity.