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Nuclear Power is Pivotal to Fulfilling Earth Day Goals

By: Rob DiFrancesco and Norris McDonald

INTRODUCTION

For 46 years, Earth Day has served as a reminder to reflect on the importance of our environment and the future of our planet. This year, Earth Day will be marked by the signing of an international climate agreement by President Obama and President Xi Jinping of the People's Republic of China. This important event underscores the urgency of developing new sources of clean energy — and of assuring that our existing zero-carbon sources, our nuclear power plants, are maintained. It's clear that the health of our environment is affected by how our power is generated.

PLANS OF ACTION, AMBITIOUS GOALS AT EVERY LEVEL

Plans of action to address climate change have been formulated at the international, national, and state levels. At the international level, the historic COP21 summit in Paris last December established a binding framework, the Paris Agreement, to reduce greenhouse gas emissions by the end of this century. According to the White House, the Paris Agreement, which will be signed by Presidents Obama and Jinping on April 22, “marks a global commitment to tackling climate change and a strong signal of the need for a swift transition to low-carbon, climate-resilient economies.”

Within the United States, one aspect of our national commitment is the Environmental Protection Agency (EPA)'s Clean Power Plan (CPP), which aims to reduce carbon dioxide emissions from electrical power generation by 32%, from 2005 levels, over the next 15 years. The CPP emphasizes three categories of action: increasing generation efficiency of existing fossil fuel plants; substituting natural gas for coal; and substituting renewables for fossil fuels.

Here in New York, the Clean Energy Standard (CES) aims to make our state a national leader in clean, affordable, reliable energy by reducing carbon emissions 40 percent, and by producing 50 percent of our energy from renewable sources by 2030.

CLEAN NUCLEAR POWER KEY TO HEALTH OF ENVIRONMENT AND PEOPLE

The magnitude of the goals at the international, national, and state levels makes nuclear power crucial to their achievement. COP21 specifically allows nuclear, which emits virtually zero carbon, to be included in signatories' carbon mitigation plans. Similarly, the EPA “expects nuclear power to be a key partner” in meeting the goals of the United States CPP.

As New York begins to implement the CES, the Cuomo administration has recognized the importance of our nuclear fleet as a bridge to a renewable future. The evidence is compelling: according to the New York Independent System Operator (NYISO), these virtually zero-carbon plants provide nearly 30% of the state's total electricity; per the Nuclear Energy Institute (NEI), they provide nearly 60% of the state's clean electricity — and they are the only generators of

clean power both during the day and at night. In 2013 our six nuclear plants prevented the release of 22 million metric tons of carbon into our air, equal to keeping nearly 5 million cars off the road. In distinct contrast, the U.S. Energy Information Administration (EIA) says that in the same year oil, gas, and coal burning released over 160 million metric tons of carbon into New York's air.

Currently some nuclear plants are struggling economically because they compete in open markets against natural gas, which don't offer the same environmental benefits as nuclear generators, but has been priced at near historic lows. Without compensation for the always-on, zero-carbon power they provide, plants may close — as is the case for the James A. FitzPatrick plant near Oswego.

Recognizing the pivotal role of nuclear power in fulfilling the CES and CPP, New York's Public Service Commission designed a plan to provide subsidies and favorable market treatment to help keep upstate nuclear plants up and running. However, the state has been pushing for years to close downstate's Indian Point, the largest nuclear plant and the source of 11 percent of the state's and nearly 30 percent of New York City's electricity. Indian Point has been continuously and thoroughly reviewed by the U.S. Nuclear Regulatory Commission, whose staff has recommended a 20-year license renewal.

Renewable power generation cannot reach significant scale to replace Indian Point's 2,000 megawatts of electricity, perhaps for decades. If Indian Point were to close prematurely, it would be replaced predominantly by fossil fuel generation, probably natural gas. That in turn would add carbon, nitrous oxide, and sulfur dioxide to our air. A study by Charles River Associates found that losing Indian Point would increase carbon emissions a minimum of 7 percent and a maximum of 15 percent in New York State, and a minimum of 8 percent and a maximum of 19 percent in New York City. Nitrous oxide emissions, according to a report commissioned by the New York Department of Environmental Protection, would increase by 7 to 8 percent.

Such an increase of pollutants in our air would adversely affect people's health, particularly in urban neighborhoods. Members of the African-American community would disproportionately suffer as New York's urban centers already have some of the highest asthma rates in the country. The disease consequences of Indian Point's absence would be measured in dollars as well: New York State's Department of Health has determined that the cost of asthma already runs well over \$1 billion per year in New York City.

CONCLUSION

Earth Day reminds us that the health of our environment and people depends upon our good stewardship of our air quality. Actions are needed at every level of government to reduce the burdens of carbon and pollutants in our air. Nuclear plants, which produce abundant, reliable, and virtually zero-carbon power, play a crucial role in meeting ambitious state, national, and international goals; keeping the entire New York nuclear fleet going will significantly preserve and promote the health of our environment and our communities.

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***About the Authors:** Rob DiFrancesco is the director of the New York Affordable Reliable Electricity Alliance (New York AREA) and Norris McDonald is the president of the African American Environmentalist Association and a New York AREA advisory board member. Founded in 2003, New York AREA is a diverse organization of more than 150 business, labor, and community groups whose mission it is to ensure that New York has an ample and reliable electricity supply and economic prosperity for years to come. Entergy, owner of Indian Point and FitzPatrick, is a member of New York AREA. For more information, visit www.area-alliance.org.*