CLIMATE CHANGE IN NV CAUSES WILDFIRES & THREATENS WATER SUPPLY; CLEAN POWER PLAN & SOLAR ENERGY ARE KEY

FOR NEVADA, CLIMATE CHANGE CAUSES EXCESSIVE HEAT, INCREASED WILDFIRES, AND LESS SAFE WATER SUPPLIES FOR CITIES AND FARMERS

CLIMATE CHANGE LEADS TO EXTREME WEATHER EVENTS; FROM 1980-2014, NEVADA HAD 17 SUCH EVENTS, EACH CAUSING $1 BILLION IN DAMAGES

Increased Carbon Pollution Will Lead To Warmer Temperatures, More Extreme Weather Events, And Increased Threats To Human Health. According to the EPA, "Greenhouse gas concentrations in the atmosphere will continue to increase unless the billions of tons of our annual emissions decrease substantially. Increased concentrations are expected to: increase Earth's average temperature … reduce ice and snow cover, as well as permafrost … increase the frequency, intensity, and/or duration of extreme events; shift ecosystem characteristics; [and] increase threats to human health." [EPA, Future Climate Change]

1980 – 2014: Nevada Had 17 Extreme Weather Events That Each Caused More Than $1 Billion In Damages. Between 1980 and 2014, Iowa suffered 17 "weather and climate events … that have resulted in more than $1 billion in damages." [National Climatic Data Center, 1980-2014]

NEVADA, ALREADY EXPERIENCING WARMEST TEMPERATURES ON RECORD, COULD SEE INCREASED HEAT WAVES, RESULTING IN HIGH MORTALITY RATES

Between 2001 And 2010, Southwest Region Experienced Warmest Temperatures On Record. According to the 2014 National Climate Assessment, "The Southwest is already experiencing the impacts of climate change. The region has heated up markedly in recent decades, and the period since 1950 has been hotter than any comparably long period in at least 600 years …The decade 2001-2010 was the warmest in the 110-year instrumental record, with temperatures almost 2°F higher than historic averages, with fewer cold air outbreaks and more heat waves." Nevada is considered part of the American southwest. [U.S. National Climate Assessment 2014, Southwest; Risky Business report, June 2014, pg. 42]

Already Experiencing 40 Days Per Year Of Temperatures Above 95 Degrees, The American Southwest Could See That Number Rise To 70 Days Per Year By The End Of The Century. Over the past 30 years, the average Southwest resident experienced 40 days per year of temperatures of 95°F or more. If we continue on our current path, by mid-century the average Southwest resident will likely see 13 to 28 additional extremely hot days. By the end of the century, this number will likely rise to an additional 33 to 70 days of extreme heat due to climate change. That translates to one to two additional months of days over 95°F each year within the lifetime of babies being born right now in this region—one of the fastest-growing in the United States." [Risky Business report, June 2014, pg. 42]

In The American Southwest, "Exposure To Excessive Heat" Can Aggravate Health Conditions Such As Respiratory Or Heart Disease. According to the 2014 National Climate Assessment, "Exposure to excessive heat can also aggravate existing human health conditions, like for those who suffer from respiratory or heart disease. Increased temperatures can reduce air quality, because atmospheric chemical reactions proceed faster in warmer conditions. The outcome is that heat waves are often accompanied by increased ground-level ozone, which can cause respiratory distress." [U.S. National Climate Assessment 2014, Southwest]

For Southwestern Cities – Home To 92% Of The Region's Population – Warming Temperatures And Severe Heat Waves Can Result In Heat Stress And High Mortality, Especially In Less Affluent Neighborhoods. According to the 2014

National Climate Assessment, "The Southwest has the highest percentage of its population living in cities of any U.S. region. Its urban population rate, 92.7%, is 12% greater than the national average … Heat stress, a recurrent health problem for urban residents, has been the leading weather-related cause of death in the United States since 1986, when record keeping began … Already, severe heat waves, such as the 2006 ten-day California event, have resulted in high mortality, especially among elderly populations. In addition, evidence indicates a greater likelihood of impacts in less affluent neighborhoods, which typically lack shade trees and other greenery and have reduced access to air conditioning." [U.S. National Climate Assessment 2014, Southwest]

- **Nevada's Population Could Grow To 3.3 Million By 2033, A 63 Percent Increase From 2000.** According to the U.S. Census Bureau's 2014 estimate, Nevada's population stands at 2.84 million. However, according to the Nevada State Demographer's Office at the University of Nevada, Reno, the state's population could grow to 3.3 million by 2033 – a more than 16 percent increase. The state's population in 2000 was approximately 2.02 million. [U.S. Census Bureau, Nevada; Las Vegas Review-Journal, 10/8/14]

CLIMATE CHANGE MEANS MORE WILDFIRES, AND EARLIER SNOWMELT, WHICH LEADS TO LESS RELIBALE WATER SUPPLIES FOR CITIES AND AGRICULTURE

Man-Made Climate Change Means "Widespread Tree Mortality," More Wildfires, And Increases In Drought That Cause Earlier Spring Snowmelt. According to the 2014 National Climate Assessment, "Compared to relatively uniform regional temperature increases, precipitation trends vary considerably across the region, with portions experiencing decreases and others experiencing increases. There is mounting evidence that the combination of human-caused temperature increases and recent drought has influenced widespread tree mortality, increased fire occurrence and area burned, and forest insect outbreaks. Human-caused temperature increases and drought have also caused earlier spring snowmelt and shifted runoff to earlier in the year." [U.S. National Climate Assessment 2014, Southwest]

In The American Southwest, Results Of Climate Change – Warming, Drought, Insect Outbreaks – Have Increased Wildfires, And Bring Greater Risks To People And Ecosystems In The Area. According to the 2014 National Climate Assessment, "Increased warming due to climate change, drought, insect infestations, and accumulation of woody fuels and non-native grasses, make the Southwest vulnerable to increased wildfire. Climate outweighed other factors in determining burned area in the western U.S. from 1916 to 2003, a finding confirmed by 3000-year long reconstructions of southwestern fire history. Between 1970 and 2003, warmer and drier conditions increased burned area in western U.S. mid-elevation conifer forests by 650% … Numerous fire models project more wildfire as climate change continues. Drought and increased temperatures due to climate change have caused extensive tree death across the Southwest. In addition, winter warming due to climate change has exacerbated bark beetle outbreaks by allowing more beetles, which normally die in cold weather, to survive and reproduce. Wildfire and bark beetles killed trees across 20% of Arizona and New Mexico forests from 1984 to 2008." [U.S. National Climate Assessment 2014, Southwest]

In The American Southwest, "Snowpack And Streamflow Amounts Are Projected To Decline In Parts Of The Southwest, Decreasing Surface Water Supply Reliability For Cities, Agriculture, And Ecosystems." According to the 2014 National Climate Assessment, "Winter snowpack, which slowly melts and releases water in spring and summer, when both natural ecosystems and people have the greatest needs for water, is key to the Southwest's hydrology and water supplies. Over the past 50 years across most of the Southwest, there has been less late-winter precipitation falling as snow, earlier snowmelt, and earlier arrival of most of the year's streamflow … Projections of further reduction of late-winter and spring snowpack and subsequent reductions in runoff and soil moisture, pose increased risks to the water supplies needed to maintain the Southwest's cities, agriculture, and ecosystems. Temperature-driven reductions in snowpack are compounded by dust and soot accumulation on the surface of snowpack. This layer of dust and soot, transported by winds from lowland regions, increases the amount of the sun's energy absorbed by the snow. This leads to earlier snowmelt and evaporation – both of which have negative implications for water supply, alpine vegetation, and forests." [U.S. National Climate Assessment 2014, Southwest]

In The American Southwest, "Reduced [Crop] Yields From Increasing Temperatures And Increasing Competition For Scarce Water Supplies Will Displace Jobs In Some Rural Communities." According to the 2014 National Climate Assessment, "Climate change in the Southwest could happen faster and more extensively than farmers' ability to adapt. The region's pastures are rain-fed (non-irrigated) and highly susceptible to projected drought … A warmer, drier climate is projected to accelerate current trends of large transfers of irrigation water to urban areas, which would affect local agriculturally dependent economies." [U.S. National Climate Assessment 2014, Southwest]

CLEAN POWER PLAN & CONTINUED INVESTMENT IN RENEWABLE ENERGY CAN HELP NEVADA CREATE JOBS & SAVE MONEY ON ELECTRICITY BILLS

CLEAN POWER PLAN CAN HELP NEVADA COULD CREATE 1,200 NEW JOBS AND SAVE RESIDENTS $7 MILLION ON ELECTRIC BILLS BY 2020

Clean Power Plan Will Reduce Carbon Pollution From Power Plants, Creating Jobs In The U.S. And Making Homes And Businesses More Energy Efficient; Flexible Proposal Allows States To Implement A Plan That Best Fits Its Needs. According to a June 2014 EPA fact sheet, "Power plants are the largest source of carbon pollution in the U.S., accounting for roughly one-third of all domestic greenhouse gas emissions. The proposal will also cut pollution that leads to soot and smog by over 25 percent in 2030 … The agency's proposal is flexible—reflecting the different needs of different states. The proposal will put Americans to work making the U.S. electricity system less polluting and our homes and businesses more efficient, shrinking electricity bills by roughly 8 percent in 2030." [EPA Fact Sheet, 6/2/14]

Under The Clean Power Plan, Nevada Could See More Than 1,200 New Jobs While Saving $7 Million On Electric Bills In 2020. According to a March 2015 Natural Resources Defense Council fact sheet, "Setting a standard to reduce more carbon pollution than the EPA's current proposal would still create jobs and reduce customer energy bills. With a stronger standard than EPA's initial proposal, made possible by ramping up energy efficiency and renewable power … Nevada would see the creation of 1,217 new jobs and that the state's households and businesses would save $7 million on their electric bills in 2020." [NRDC, March 2015]

WITH NEARLY 6,000 WORKING IN SOLAR SECTOR, NEVADA IS A NATL. LEADER SOLAR ENERGY; PRICES HAVE DROPPED MORE THAN 50 PERCENT SINCE 2010

In 2014, Nevada Was Third Nationally In Solar Capacity Installation; Overall, The State Is Fifth In Currently Installed Solar Capacity. According to a September 2015 fact sheet from the Solar Energy Industries Association, "In 2014, Nevada installed 339 MW of solar electric capacity, ranking it third nationally. Of this capacity, 2 MW were residential, 19 MW were commercial and 318 MW were utility-scale. The 974 MW of solar energy currently installed in Nevada ranks the state fifth in the country in installed solar capacity. There is enough solar energy installed in the state to power 150,000 homes." [SEIA, 9/9/15]

More Than 100 Solar Companies Employ Nearly 6,000 Nevadans. According to a September 2015 fact sheet from the Solar Energy Industries Association, "There are currently more than 111 solar companies at work throughout the value chain in Nevada, employing 5,900 people. These companies provide a wide variety of solar products and services ranging from solar system installations to the manufacturing of components used in photovoltaic panels." [SEIA, 9/9/15]

In Nevada, More Than $560 Million Was Invested In Solar Installations In 2014 Alone; Meanwhile, Solar Prices Have Dropped More Than 50 Percent Since 2010. According to a September 2015 fact sheet from the Solar Energy Industries Association, "In 2014, $569 million was invested on solar installations in Nevada. This represents a 427% increase over the previous year, and is expected to grow again [in 2015]. Installed solar photovoltaic system prices in the U.S. have dropped steadily- by 6% from last year and 53% from 2010." [SEIA, 9/9/15]