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Testimony before the Committee on Energy and Commerce

Subcommittee on Environment and Climate Change

April 2, 2019

Committee Members:

Thank you for welcoming me here today, and for taking the time to hear from local elected officials on the topic of climate change.

My name is Jackie Biskupski. I'm proud to serve as Mayor for the 200,000 residents of Salt Lake City—a position I've had since 2016. I'm also Chair of the U.S. Conference of Mayors' Alliance for a Sustainable Future—a committee dedicated to forging connections between the public and private sectors to collaboratively tackle our environmental challenges. I'm also co-chair of the Sierra Club's Mayors for 100% Clean Energy coalition, and a member of Climate Mayors and Women 4 Climate.

Salt Lake City is a majestic and special place. Over 25 years ago, I came to Utah for a ski trip and I never left! We are the crossroads of the west and are blessed to have world-class recreation, breathtaking natural splendors, a strong economy, a vibrant culture, and a collaborative spirit.

It is that collaborative and can-do spirit that I would like to highlight today—particularly as it relates to one of the biggest challenges we face as a country: climate change.

Today I am here to discuss what we are already experiencing in Salt Lake City, and how we are working tremendously hard to avoid the worst effects that are projected. But we need your help.

Salt Lake City is landlocked. We do not face rising sea levels or monster hurricanes. But climate change is impacting us just as significantly. Instead of "hurricane season," we have "wildfire season" and "poor air quality season." They both are becoming longer and more hazardous.

Here are some quick highlights of the impacts the Salt Lake City area is currently experiencing as the climate warms—and what those impacts may be if emissions continue to ramp up unabated.

Salt Lake City Climate Change Impacts

Surface water makes up the vast majority of our drinking water in Salt Lake City. It is conveniently stored for us in our mountain snowpack which melts and provides the water critical for our community's residential, industrial, and agricultural uses. But climate change is impacting the amount of water we have, when it runs off, and even its quality. With every degree Fahrenheit increase in temperature, we can expect to see close to a 3.8% average decrease in overall water volume emanating from the Wasatch streams.

These impacts are hitting us today. While thankfully we've had a good snow year in 2019, we are still recovering from a 30-year low[1] in our snowpack and many dry years. To top it off, the water year ending September 30, 2018, was the driest on record[2] and only one other year was warmer. Those conditions led Salt Lake City to issue a Stage 1 Drought Advisory last year.

Increased instances and periods of climate-driven drought will challenge the water resource redundancies we currently have in our water system.

Climate-driven impacts such as increased warming, drought, and insect outbreaks **have increased wildfires** and impacts to people and ecosystems across the Southwest. Fire models project more wildfire and increased risks to communities across extensive areas. Drier conditions turn our forests into tinder, stressing trees and contributing to outbreaks of bark beetle and other pests. This makes wildfires more likely, as well as more intense when they do occur. We saw an unprecedented fire season in Utah last year that cost over $100 million[3] to fight.

The ski industry, a $1.3 billion contributor[4] to Utah's economy, is also threatened and will decline due to a shorter ski season. According to a Protect Our Winters/Natural Resource Defense Council report[5], without intervention, winter temperatures in the U.S. are projected to warm an additional 4 to 10 degrees Fahrenheit by the end of the century, with subsequent decreases in snow cover area, snowfall, and a shorter snow season. Snow depths could decline in the west by 25 to 100 percent. Park City, Utah, for example, is forecast to lose all of its mountain snow under this scenario by the end of the century[6].

Water quality is also impacted. With climate change, Salt Lake City may see more instances of water quality issues that are caused by warmer water, higher air temperatures, drought, wildfire—and exacerbated by pollution.

Indeed, summertime algal blooms have become the new norm in Utah. In 2016, an algal bloom[7] on Utah Lake sickened over 100 people[8] and disrupted secondary water and agricultural supplies throughout the Salt Lake Valley. Area farmers had to find alternative sources of water[9]. Some had to make difficult decisions regarding their crops. These conditions are forecast to occur each summer with a warming climate, threatening our drinking water quality, the recreational economy on our lakes, and the many farmers who rely on secondary water for their livelihoods. Parasites that cause disease are also more common in warmer waters.

When we do have precipitation, it's coming all at once. **Flooding events** will be more common with stronger, more intense storms, and indeed, this is what we've already been experiencing. Salt Lake City experienced two major rain events in the summer of 2017. There was no other rain that summer. Both

[1] https://www.sltrib.com/news/2017/12/26/utah-snowpack-lowest-in-30-years-in-many-mountain-locations/
[2] https://www.sltrib.com/news/environment/2018/10/10/utah-just-experienced-its/
[3] https://www.ksl.com/article/46409087/wildfires-burned-485989-acres-in-utah-this-year--more-than-double-for-2017
[4] https://gardner.utah.edu/wp-content/uploads/TravelandTourismRepFinal2017.pdf
[5] https://protectourwinters.org/climate_report/
[6] https://protectourwinters.org/climate_report/report.pdf
[7] https://archive.sltrib.com/article.php?id=4119973&itype=CMSID
[8] https://www.theguardian.com/us-news/2016/jul/22/toxic-algae-bloom-utah-lake-100-sick-heatwave
[9] http://ag.utah.gov/home/news/614-farmers-and-ranchers-urged-to-use-caution-with-water-taken-from-utah-lake.html

events were severe, and caused localized flooding in the city. One of those storms was a 200-year storm[10] event, flooding hundreds of basements, and causing significant damage to two schools and a city library, as well as streets.

Damage to infrastructure can cause injuries and fatalities. The need for infrastructure that can handle these increased storms will impact Salt Lake City's budgets and our residents' pocketbooks.

Air quality

The Salt Lake City area has suffered from poor air quality for as long as we have had combustion activities in our valleys during the wintertime inversion season. This has an impact. Nearly 9% of Utah adults[11] have asthma, as do 6% of children.

A 2014 analysis[12] by The Salt Lake Tribune and Brigham Young University economist Arden Pope showed a correlation between higher pollution days and increased school absenteeism.

Data also show that during the winter[13], when we have weather inversions and PM2.5 levels increase, more emergency room visits and hospital admissions occur.

Unfortunately, climate change is predicted to make several types of pollution worse—1) Ozone, for which Salt Lake City is currently in non-attainment, and 2) Summertime PM2.5 pollution from wildfire smoke. Wildfires may also cause an increase in volatile organic compounds (VOCs) and nitrogen oxide (NOx), which are ozone precursors. Both of these types of pollution can cause and exacerbate heart and lung conditions[14].

This is exactly what we saw last summer. Haze blanketed much of the West during the outrageous wildfire season[15] we experienced. In Utah, hospital visits spiked as air pollution hit those with cardiovascular and pulmonary issues the most. Exposure to poor air quality can also cause lifelong damage in even our healthiest residents.

Climate change, wildfires, smoke, and the increasing incidence of poor air quality have very real impacts on the health of our residents and can, in some cases, even lead to premature death[16].

Increasing Temperatures and Public Health

The weather has been getting hotter. Data from 1895[17] onward show an increasing average annual temperature, as well as increasing maximum annual temperatures. Minimum nighttime temperatures records are also being broken. Higher temperatures have an impact on public health, particularly our vulnerable populations. High evening temperatures mean that it's tougher for the body to recover from

[10] https://www.sltrib.com/news/weather/2017/07/27/torrential-thunderstorms-flood-east-high-school-slcs-sprague-branch-wasatch-front-intersections/
[11] http://health.utah.gov/asthma/data/
[12] https://archive.sltrib.com/article.php?id=57489094&itype=cmsid
[13] http://www.health.utah.gov/utahair/respiratory/#Asthma
[14] http://www.health.utah.gov/utahair/pollutants/
[15] https://deq.utah.gov/communication/news/utahs-air-compare-summer
[16] https://schd.ws/hosted_files/2017watershedsymposium/80/Climate%20Adaptation%20Plan%20DRAFT%2017-09-01.pdf
[17] https://www.ncdc.noaa.gov/cag/national/time-series

heat stress and the very young or very old, those who work outside, don't have air conditioning, or have compromised health are most impacted.

Other impacts on public health include the prevalence and geographic range of some diseases that previously did not affect Utah, according to the Salt Lake County Health Department's Climate Adaptation Plan for Public Health[18].

Local Actions on Climate

What we are currently experiencing in our cities and towns is only the beginning.

Both the National Climate Assessment and the IPCC reports indicate that we must limit global warming by 1.5 degrees by 2030 in order to avoid catastrophic impacts on the world. This means we must transition our economies to a low- or non-carbon foundation as quickly as possible.

Cities, which are on the front line of emergency response in this warming world, are heeding the call.

I was pleased to be appointed to Chair the Alliance for a Sustainable Future which is a joint effort between the U.S. Conference of Mayors and the Center for Climate and Energy Solutions.

Our Alliance conducts surveys on what cities are doing in the area of reducing greenhouse gas emissions to identify where more work needs to be done.

The Alliance's 2018 Climate Survey[19] of 158 cities indicated that:

- 60% of cities have launched or significantly expanded a climate initiative or policy in the last year;
- 65% of cities procure renewable electricity for municipal operations;
- More than 70% of cities have energy efficiency policies for new and existing municipal buildings; and
- More than 50% of responding cities have established energy efficiency policies or incentives for new and existing commercial and residential buildings.

In Salt Lake City, we are working on all fronts to **reduce emissions from our municipal operations and our community** as a whole. I will share some of our highlights today because I believe our example shows what is both possible and practical for many other entities. These can also be found in our Climate Positive 2040 report at www.slcgreen.com/climatepositive

First, we must focus on **energy efficiency** because cutting waste is the most cost-effective strategy for controlling pollution and saving money. In Salt Lake City we developed a Comprehensive Energy Management Executive Order to benchmark our buildings and we've realized significant reductions in energy use through upgrades and tune-ups. It also mandates striving for net zero construction.

[18] https://schd.ws/hosted_files/2017watershedsymposium/80/Climate%20Adaptation%20Plan%20DRAFT%2017-09-01.pdf
[19] http://www.usmayors.org/wp-content/uploads/2018/09/uscm-2018-alliance-building-report-baldwin-small-7.pdf

In 2017, Salt Lake City passed an energy benchmarking and transparency ordinance[20] for commercial buildings over 25,000 square feet. The simple act of measuring and reporting energy use costs no money and is projected to eliminate up to 29 tons of air pollutants annually and even more carbon. Energy benchmarking of your building is akin to knowing the miles per gallon on your vehicle. It is a commonsense best practice.

On City infrastructure, we are leading by example—we built the **first Public Safety Building in the nation designed to be net-zero energy.** That means it produces as much energy as it consumes. This makes it a resilient building, not only from a carbon emissions perspective, but during real-time emergencies when that on-site solar will be called upon. This building underscores what we see as a prudent community investment, not a financial outlay. In fact, building above code from an energy efficiency perspective and investing in the renewable energy for this building had less than a 15-year payback period for the City.

Salt Lake City has followed this up with **two first-of-its kind net zero energy fire stations** which opened last year.

Building better buildings is something we all should be doing to strengthen our communities, create more resiliency, and save resources—both financial and environmental.

On the topic of energy, I am particularly excited to talk about Salt Lake City's **unique collaboration with our investor-owned electric utility, Rocky Mountain Power.**

One of the hardest things local communities are facing is in how to navigate the relationship with their energy provider—but it is one of the most important things we can do. This conversation must start with an acknowledgement that in order to reduce carbon emissions, and to make a real change, we all have a role and responsibilities.

In 2016, Salt Lake City issued a joint resolution with the City Council establishing a **100% renewable electricity goal** for the whole community by 2032, followed by a goal of reducing our community carbon footprint 80% by 2040. After the Joint Resolution, Salt Lake City then signed a Cooperation Statement with Rocky Mountain Power in 2016, which details the goals, scope, and timing for this vision with a Clean Energy Implementation Plan providing annual updates. More information can be found at www.slcgreen.com/climatepositive.

Our partnership with Rocky Mountain Power to transition Salt Lake City to net-100% renewable electricity is unprecedented. I'm incredibly proud of the collaboration that we have fostered over the past three years—and the results we have so far achieved.

Just last month, we successfully worked with state legislators, regulators, solar companies, non-profits, other participating communities, and Rocky Mountain Power to pass a landmark piece of legislation—HB 411.

The legislation, which is the first of its kind in the country, establishes a framework for how communities can work with their electricity provider through existing regulatory structures to procure and develop clean energy resources. The resulting clean energy developments will not only yield important climate benefits, but also meaningful economic development for our state.

[20] https://www.slc.gov/sustainability/elevate-buildings/

Salt Lake City's efforts, along with those of our partnering communities Park City, Moab, and Summit County on HB411 is an example of what our Governor Herbert likes to call the "Utah way"—a uniquely collaborative and problem-solving approach to tackling our biggest challenges. I am proud of the extraordinary work that went into this legislation.

It also highlights how things are changing. Solutions are being drawn up, planned, and implemented. Rocky Mountain Power is responding to the needs and desires of local communities on multiple fronts. I am thankful and proud to say they were a key partner and facilitator in working with us on this vision and how to make it a reality. I am looking forward to the continuation of the process and to seeing the results of our collective labors—including delivering on the promise of a "green" Winter Olympic Games, should Salt Lake City be tapped to once again host in the near future.

I will also note that we are working with the utility on a sizeable renewable project, which is currently making its way through the state regulatory process. It will help Salt Lake City secure **renewable energy to meet 50% of our municipal electricity needs by 2020.**

Salt Lake City is also collaborating with our natural gas utility on how to reduce emissions and aid in the transition to a lower-carbon future.

All of this goes to say that while we may be facing a climate crisis, we are also on the forefront of a new era of cooperation and mutual action. Salt Lake City and our partners are living, breathing examples of that.

In addition to energy efficiency and clean energy, a modernized and **cleaner transportation** network is a key strategy in reducing emissions. Again, Salt Lake City is doing all we can to offer cleaner transportation options and more robust infrastructure to support those goals. In our municipal fleet, we now have over 200 clean vehicles, including 20 all-electric and 80 hybrid-electric vehicles. These vehicles cost less to operate and, with all-electric models, put out virtually no local pollution. When factoring in the upstream emissions from fossil fuel powered electricity, they still have an edge over the typical gasoline vehicle according to the Southwest Energy Efficiency Project[21]. This will only increase as our electricity grid becomes cleaner.

Electric vehicles are critical for our climate and local air quality. That is why Salt Lake City, Rocky Mountain Power, and the State of Utah are making significant investments in electric charging infrastructure. This month we are wrapping up installation of even more Level 2 charging stations, bringing the total number of **Salt Lake City-owned public EV charging ports to 56** and complementing an even more robust charging network available throughout the city.

Salt Lake City recently completed its **first Transit Master Plan[22]. ** With broad community support of our efforts to reduce air pollution, last year we took a major step toward implementing that plan. Through an increase in sales-tax, Salt Lake City is now making the largest annual budget contribution to transit in our city ever!

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[21] http://www.swenergy.org/data/sites/1/media/documents/publications/documents/2017_EV_Emissions_Update_Wasatch_Front_Jan-2017.pdf

[22] http://www.slcdocs.com/transportation/Plans/SLC_TMP_FULL_FINAL.pdf

What that means is the creation this year of three new rapid bus lines—to connect the major education and workforce zones in the City with the residents who need to get there. We recognize this isn't just a "climate" issue. It's an equity, economic, and quality of life issue.

Salt Lake City is also piloting programs, like ride-sharing services, to help close what is known as the first-mile, last-mile gap—so living a quarter of a mile from a transit stop does not keep residents from using transit instead of their cars. This is a really exciting time for transit in Salt Lake City and we are working to capitalize on every opportunity—whether it is bike-share, electric scooters, or ride-sharing.

When we speak about the social and technological changes needed to reduce carbon emissions—these "transit meets Silicon Valley" opportunities are a part of that. The "disruption" factor innovations like on-demand e-scooters and ride sharing programs have created is necessary.

They have changed the way people think about transportation—and if blended into a city's existing mass-transit network, they can help us reduce carbon output, especially in dense urban areas.

We're also implementing a **Complete Streets** approach to all of our street reconstruction projects to provide an infrastructure that encourages walking, biking, and transit.

These local plans and investments are solving problems and making our community healthier, more resilient, more equitable, and yes, more climate-responsive.

Committee Requests

As you can see, Salt Lake City has numerous programs to mitigate carbon emissions and respond to climate change. But it is imperative that the Federal government lead our nation's efforts to minimize climate impacts. Local governments can only do so much, and without your help the results of our efforts will be limited, and the damage caused by our changing climate will be much more extensive.

Specific requests that would help local governments make more progress include:

- **Pass the bipartisan Energy Innovation and Carbon Dividend Act (H.R. 763).** While all of the following requests are important, this one action will create a level playing field by ensuring that the cost of carbon pollution is accurately accounted for.
    - Climate change has health, environmental and economic costs that are not presently accounted for. Low-carbon alternatives are less expensive than fossil fuel options when the true costs of carbon emissions are included.
    - This fee and dividend program would place a predictable, steadily – rising price on carbon. The fees would be then be allocated back to the American public so that it is revenue neutral.
    - It has been estimated that this policy will reduce America's emissions[23] by 40 percent in the first 12 years, by creating fair economics to incentivize the use of low-carbon fuels.
    - It will incentivize citizens and businesses to use less fossil fuels and stimulate the renewable energy industry.
    - The policy is also estimated to create 2.1 million new jobs through economic growth in local communities.

[23] https://energyinnovationact.org

- **Fund Federal Grants that move communities away from polluting fossil fuels to a renewable energy economy.** Salt Lake City was recognized numerous times for our accomplishments from DOE's Solar America Cities grant program and EPA's Climate Communities grant. With renewed funding, cities across the nation could continue to make great strides to reduce their carbon emissions if these grants continue to be funded, or are reinstated:
    - Energy Efficiency and Conservation Block Grant Program (EECBG)
    - EPA Targeted Airshed and other emission reduction grant programs
    - DOE Solar Cities Grants
    - DOE pass-through funding to State governments for energy efficiency programs
- **Take legislative action to reverse the rollback of the CAFE standards for fuel efficiency.** Increased fuel use increases air emissions and carbon emissions, making it more difficult to meet our carbon reduction targets.
- **Continue to aggressively invest in research to ensure the availability of sound climate data and climate models that can be used at the local level.** This includes ensuring the availability of satellite data, accurate weather data, and the development of models to forecast future climate scenarios.
- **Invest in funding for research on renewable energy sources.** To create a carbon-free economy, as we must achieve in the next few decades, intensive research by university and government researchers will be needed to create new technologies and products.
- **Fund Federal Programs that reduce water use such as the WaterSense Program.** Communities such as Salt Lake City are already seeing reduced snowpack, an important source of our drinking water. Water conservation will be imperative and will also reduce energy use due to water pumping.
    - Through public/private partnerships, WaterSense helps to test, label, and market water and energy efficient appliances and irrigation controllers.
    - WaterSense has helped Americans save more than $46 billion dollars on their water and energy bills over the 13 years of the program's history. Together, we have saved 2.7 trillion gallons of water since 2006 (and 631 billion gallons in 2017). WaterSense-labeled products have saved 367 billion kilowatt-hours of electricity.
    - Additionally, WaterSense supports research and educational efforts that support the work of conservation efforts across the country.
- **Put more money into low- and no-emission vehicles and grants that support multi-modal infrastructure.** Salt Lake City just implemented its first Transit Master Plan that envisions and supports increased bus service and associated capital investments to make the transit experience safer and more comfortable.
    - Increase funding to Federal grants such as the Congestion, Mitigation and Air Quality Improvement Program (CMAQ), Surface Transportation Block Grant (STBG), Low-No funding for zero and low emissions transit buses, and Safe Routes to School.
    - Extend the Alternative Fuels Tax Credit and Electric Vehicle Tax Credit – these are critical for helping us incentivize the purchase of low-emissions vehicles to reduce emissions, clear our air, and reduce reliance on foreign oil.
- **Provide additional infrastructure funding.**
    - Salt Lake City's Complete Streets approach to street reconstruction projects will provide infrastructure that encourages walking, biking, and transit. Help us improve our

infrastructure without adding to congestion and air pollution by working with your colleagues to address emissions in the next Surface Transportation Bill. Include an emphasis on transit improvements, ridesharing and other transportation improvements.

- We received a $22 million grant from the federal government toward the construction of our new airport. Thank you. We're building this airport to meet the LEED Gold energy efficiency building standard. We're doing our part to build an energy efficient airport, but more incentives could take us even farther. We encourage you to put guardrails on federal grants to incentivize similar best practices and contribute to community resiliency by requiring more sustainable building practices and standards—just as we are doing with our $3.6 billion airport and other sustainable construction.
- If the federal government is investing in the movement of surface goods, please direct it to communities that would not be adversely impacted by additional transportation emissions, or couple it with funding to mitigate the adverse impacts that are identified through an Environmental Impact Assessment.
- Continued federal funding under the Water Infrastructure and Finance Innovation Act (WIFIA) and the America's Water Infrastructure Act. Salt Lake City has a billion dollars of aging water infrastructure to maintain over the next 5-10 years to protect public health. WIFIA loans help reduce the economic impact to water and sewer rate payers, particularly as we invest in more climate resiliency measures.
- The U.S. Forest Service needs funding to maintain national forests to protect drinking water quality. 90% of SLC's water supply emanates from the Uinta Wasatch National Forest. Funding is needed for forest health and recreation management. Salt Lake City has had to fill some of the gaps, including during the recent government shut-down, with the maintenance of restrooms and other critical functions.

Conclusion

I am here today as both a Mayor and as a mother.

I ran for office 4 years ago to build a "City for Everyone" – to improve equity, to create opportunity, and to ensure that our community members can both survive and thrive today and well into the future.

If we are going to make the shifts needed to keep that promise to our residents, we need to move in unprecedented ways towards deep and enduring carbon reductions, transforming how we power our homes, governments, and businesses.

Efficient and renewable technologies will not only protect our planet, but will create jobs, boost local economies, and allow cities like Salt Lake City to remain competitive.

The opportunity governments have at all levels to build sustainable and resilient communities is stronger than ever. I will continue to work every day for the health of Salt Lake City's residents, our local and state economies, and the well-being of the planet I am leaving to my sons, your children, and our future.

This reinforces what my fellow Mayors have been saying: The world cannot wait—and neither will we.

We need to identify solutions, programs, and incentives that can motivate individuals, businesses, and governments to do what is necessary to address the climate change crisis before us. I hope this Congress will take the action that is necessary.

I urge your continued support and collaboration, and offer my gratitude for our partnership.

Additional Sources

Water supply, quality data, and additional resources:

- Bardsley, Tim; Wood, Andrew; Hobbins, Mike; Kirkham, Tracie; Niermeyer, Jeff; Briefer, Laura; Burian, Steve (2013). Planning for an Uncertain Future: Climate Change Sensitivity Assessment toward Adaptation Planning for Public Water Supply. *Earth Interactions*: Vol. 17. Paper No. 23.
- National Climate Assessment: https://nca2014.globalchange.gov/
- Global Change Research Climate Report (2017): https://science2017.globalchange.gov/
- Western Water Assessment (NOAA RISA) Information: http://wwa.colorado.edu/
- US EPA Creating Resilient Water Utilities: https://www.epa.gov/crwu
- USU Climate Center: https://climate.usu.edu/index.php
- University of Utah Water Center: https://water.utah.edu/
- Tree ring streamflow reconstructions by basin: https://www.treeflow.info/data
- Carpe Diem West Information: www.carpediemwest.org
- iUtah Information: http://iutahepscor.org
- USCM/C2ES Alliance for a Sustainable Future: https://www.usmayors.org/alliance-for-a-sustainable-future/