

**RESOLUTION TO SLOW THE CLIMATE CRISIS BY REDUCING METHANE EMISSIONS  
FROM THE FRACKED GAS AND POWER INDUSTRIES**

**WHEREAS**, an unprecedented, three-year global heat wave,<sup>1</sup> ongoing sea level rise and increasingly intense weather extremes are already devastating communities, wildlife and property in North Carolina and around the world;<sup>2</sup>

**WHEREAS**, those least responsible for causing this crisis have been hurt first and worst, primarily low-wealth communities and people of color, and humanity is quickly running out of time to slow this enormous challenge before it accelerates under its own momentum beyond our control;

**WHEREAS**, methane is 80-100 times more potent than carbon dioxide at trapping Earth's heat,<sup>3</sup> and has become the driving force behind the rapid heating of the planet;<sup>4</sup>

**WHEREAS**, large amounts of natural gas – which is mostly methane – are being vented and leaked directly into the air from various gas equipment, with emissions measured at rates of up to 12% of the total gas produced by wells using fracking technology;<sup>5</sup>

**WHEREAS**, these emissions make burning natural gas for electricity at least three times worse for the climate than coal,<sup>6</sup> in addition to other health impacts and explosion risks;<sup>7</sup>

**WHEREAS**, the recent surge in methane emissions is largely due to the US fracking boom,<sup>8</sup> which is being driven by Duke Energy and other utilities' expanded use of gas to generate electricity;<sup>9</sup>

**WHEREAS**, most US gas and electricity corporations are fighting efforts to reduce methane emissions;<sup>10</sup>

**WHEREAS**, reducing methane emissions can be achieved quickly and cost-effectively while creating thousands of jobs;<sup>11</sup> and

**WHEREAS**, immediately reducing methane emissions from the US natural gas industry can slow global warming enough to allow time to replace fossil fuels with cheaper clean energy such as solar, wind and storage technologies;<sup>12</sup> now therefore be it

**RESOLVED** that North Carolina Governor Roy Cooper shall use his constitutionally-granted executive authority to ensure that:

- by December 31, 2018 no natural gas originating from fracking operations is used in or transported through North Carolina;
- by December 31, 2022 no other natural gas is used in or transported through North Carolina unless it can be verified that the methane emissions associated with its production, transportation, and end use are at most 0.5% of gas pumped from the well; and
- no new natural gas-fired power plants or pipelines are constructed in North Carolina, and all existing gas plants and pipelines are phased out expeditiously and replaced with clean, renewable energy.

<sup>1</sup> NOAA and NASA reported that 2016 was the hottest year on record for the global average, the third consecutive record-setting year. "[Earth sets heat record for third straight year](#)," Associated Press, January 19, 2017.

<sup>2</sup> "[Global warming's fingerprints seen in 24 weird weather cases](#)," Associated Press, December 15, 2016.

<sup>3</sup> Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis*, 2013.

<sup>4</sup> Dr. Robert Howarth from Cornell University stated at a [December 13, 2016 press conference](#), "So the take-home message is that shale gas and shale oil development in the United States is having a demonstrable effect on atmospheric methane and that is causing the increased rate of global warming we're seeing."

Leading climatologist James Hansen has cited the "resurging growth" of atmospheric methane as a leading cause of the recent acceleration of global warming. James Hansen, et al., "[Young People's Burden: Requirement of Negative CO<sub>2</sub> Emissions](#)," *Earth System Dynamics*, October 4, 2016.

<sup>5</sup> Fracking for natural gas leads to an average of 5.8% of natural gas produced leaking into the atmosphere over the lifetime of the well. Dr. Robert W. Howarth, Cornell University, "[A bridge to nowhere: methane emissions and the greenhouse gas footprint of natural gas](#)," *Energy Science & Engineering*, May 2015.

However, methane emissions rates have been observed to be as high as 12% over the supply chain from well head to power plant. Howarth, "[Methane emissions and climatic warming risk from hydraulic fracturing and shale gas development: implications for policy](#)," *Energy and Emission Control Technologies*, October 2015.

<sup>6</sup> Howarth (footnote 5) says 5.8% of fracked gas is leaking but methane emissions exceeding a range of 1.1% to 1.9% of total natural gas production make natural gas worse than burning coal for electricity in terms of global warming. Dr. Drew T. Shindell, Duke University, "[The social cost of atmospheric release](#)," *Climatic Change*, May 2015.

<sup>7</sup> Fracking causes myriad negative impacts beyond climate change, including harm to air and water quality, risks of explosions, and increased earthquakes. People across the US are already being harmed by this dangerous practice. The natural gas industry is fighting regulation of methane emissions and drilling practices although this would also protect the safety of its workers and local communities. This is why, while reducing methane emissions is the most urgent and feasible measure, the total phase-out of fracking in favor of cheaper, clean energy is imperative.

<sup>8</sup> See reference to Dr. Howarth in #4 above.

Over two-thirds of all natural gas produced in the US now comes from wells that have been fracked (drilled using hydraulic fracturing). US Energy Information Administration, "[Hydraulically fractured wells provide two-thirds of US natural gas production](#)," May 5, 2016.

<sup>9</sup> The electric power industry accounted for 35% of US natural gas consumption in 2015. US Energy Information Administration, "[Natural gas explained: Use of natural gas](#)," October 18, 2016.

<sup>10</sup> "[EPA methane leak rules take aim at climate change](#)," *The New York Times*, May 12, 2016.

<sup>11</sup> A 2014 study prepared for the Environmental Defense Fund found that over 76 firms in the US – most of them small businesses – provide methane mitigation technologies and services. Datu Research, "[The Emerging US Methane Mitigation Industry](#)," October 2014.

Another 2014 Environmental Defense Fund study found that a 40% reduction of onshore US methane emissions is achievable with existing technologies and techniques and would save the US economy and consumers \$100 million per year. ICF International, "[Economic Analysis of Methane Emission Reduction Opportunities in the US Onshore Oil and Natural Gas Industries](#)," March 2014.

<sup>12</sup> Cornell University's Dr. Howarth has repeatedly said that, "The climate responds very quickly to methane, so if we reduce our methane emissions from shale gas now, we will slow the rate of global warming, in fact, that is the only way to avoid irreversible harm to the climate." Dr. Robert W. Howarth, Cornell University, "[Methane emissions: The greenhouse gas footprint of natural gas](#)," September 2016.