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March 11, 2022

The Honorable Mary Kiffmeyer 3103 Minnesota Senate Bldg. St. Paul, MN 55155

RE: SF 3065 (Mathews)

Dear Chair Kiffmeyer and members of the State Government Finance and Policy and Elections Committee.

Thank you for the opportunity to weigh in on this important issue. The Union of Concerned Scientists (UCS) is the nation's leading science-based nonprofit putting rigorous, independent science to work to solve our planet's most pressing problems. On behalf of UCS's 6,800+ supporters in the state, we strongly support the Clean Car Minnesota program and we oppose legislation such as SF 3065 (Mathews) that would repeal the program and jeopardize our health and welfare.

Minnesota is already experiencing the impacts of climate change driven by combustion of fossil fuels. The state was recently deemed to have the strongest winter warming trend in the contiguous United States and projections show that these climate impacts will continue to worsen as long as carbon emissions continue to accumulate. The 2021 greenhouse gas inventory confirms that transportation sector is the largest source of global warming pollution in Minnesota.³ While emissions have decreased 7% compared to 2005 levels, the reductions have tapered off. We need to move forward on reducing emissions with commonsense policies like the Clean Cars Minnesota rules instead of making it harder to protect Minnesotans from harmful transportation pollution. We are currently not on track to achieve climate goals such as the state's Next Generation Energy Act;⁵ legislators should reject bills such as SF 3065 (Mathews) that would only hold us back.

Policies that promote transportation electrification, such as the Clean Cars Minnesota rules, are crucial because air pollution from vehicles on Minnesota's roads today poses a significant and inequitable public health problem. The science is clear: no level of particulate matter (PM_{2.5}) is safe to breathe. ^{7,8,9,10,11,12,13,14,15} UCS modeling found that PM_{2.5} pollution burden from cars, trucks, and buses is inequitably distributed among racial and ethnic groups in the state. ¹⁶ People of color experience an undeniable "pollution disadvantage." Looking at the state as a whole, African Americans are exposed to 65 percent higher PM_{2.5} concentrations from on-road transportation than the average PM_{2.5} exposure for all Minnesotans. ¹⁷ Latinx residents experience concentrations 28 percent higher than the average resident. 18 At the same time, white residents have an average exposure that is 9 percent lower than the average for the state. 19

The analysis also shows that less affluent households have a higher exposure to air pollution than more affluent households, although this disparity is not as pronounced among income brackets as it is among racial and ethnic groups. ²⁰ One of the most striking examples is in Hennepin County, where our analysis shows that the lower the income, the dirtier the air breathed by those households. ²¹ Those earning less

than an annual \$20,000 breathe air that is 25 percent more polluted than the county average, while those earning more than \$200,000 breathe air that is 15 percent cleaner than the county average. 22

Minnesota should use continue pursing clean vehicle policies to reverse a history of local, state, regional, and national decisions about transportation, housing, and land use that have led to and perpetuate inequitable air pollution burdens. Now is not the time to pump the breaks.

In conclusion, UCS strongly supports the Clean Car Minnesota program. We urge Senators to vote no on SF 3065 (Mathews) for the health and welfare of Minnesotans across the state.

Sincerely,

Alyssa Tsuchiya

Clean Transportation Program

Alyssa Isudiya

Union of Concerned Scientists | ucsusa.org

¹ Minnesota Pollution Control Agency. No date. Effects of climate change in Minnesota. Saint Paul, MN. Online at www.pca.state.mn.us/air/effects-climate-change-minnesota, accessed December 4, 2019.

² Liess, S., Twine, T. E., Snyder, P. K., Hutchison, W. D., Konar-Steenberg, G., Keeler, B. L., & Brauman, K. A. (2022). High-resolution climate projections over Minnesota for the 21st century. Earth and Space Science, 9, e2021EA001893. https://doi.org/10.1029/2021EA001893.

³ Minnesota Pollution Control Agency. 2021. Greenhouse gas emissions inventory 2005-2018. Online at https://www.pca.state.mn.us/sites/default/files/lraq-1sy21.pdf.

⁴ Ibid.

⁵ *Ibid*.

⁶ Moura, M.C.P. 2019. Who Breathes the Dirtiest Air from Vehicles in Minnesota? *The Equation* (blog), February 3. Online at https://blog.ucsusa.org/cecilia-moura/who-breathes-dirtiest-air-from-vehicles-minnesota.

⁷ Landrigan, P.J., R. Fuller, N.J.R. Acosta, O. Adeyi, R. Arnold, N. Basu, A.B. Baldé, R. Bertollini, S. Bose-O'Reilly, J.I. Boufford, P.N. Breysse, T. Chiles, C. Mahidol, A.M. Coll-Seck, M.L. Cropper, J. Fobil, V. Fuster, M. Greenstone, A. Haines, D. Hanrahan, D. Hunter, M. Khare, A. Krupnick, B. Lanphear, B. Lohani, K. Martin, K.V. Mathiasen, M.A. McTeer, C.J.L. Murray, J.D. Ndahimananjara, F. Perera, J. Potočnik, A.S. Preker, J. Ramesh, J. Rockström, C. Salinas, L.D. Samson, K. Sandilya, P.D. Sly, K.R. Smith, A. Steiner, R.B. Stewart, W.A. Suk, O.C.P. van Schayck, G.N. Yadama, K. Yumkella, and M. Zhong. 2018. The Lancet Commission on pollution and health. *The Lancet* 391(10119):462–512. Online at https://doi.org/10.1016/S0140-6736(17)32345-0.

⁸ Lelieveld, J., J.S. Evans, M. Fnais, D. Giannadaki, and A. Pozzer. 2015. The contribution of outdoor air pollution sources to premature mortality on a global scale. *Nature*, September 16, 367–371. Online at https://doi.org/10.1038/nature15371.

⁹ Brook, R.D., S. Rajagopalan, C.A. Pope III, J.R. Brook, A. Bhatnagar, A.V. Diez-Roux, F. Holguin, Y. Hong, R.V. Luepker, M.A. Mittleman, A. Peters, D. Siscovick, S.C. Smith Jr., L. Whitsel, J.D. Kaufman; American Heart Association Council on Epidemiology and Prevention, Council on the Kidney in Cardiovascular Disease, and Council on Nutrition, Physical Activity and Metabolism. 2010. Particulate matter air pollution and cardiovascular disease: An update to the scientific statement from the American Heart Association. *Circulation* 121(21):2331–2378. Online at https://doi.org/10.1161/CIR.0b013e3181dbece1.

¹⁰ Orellano, P., N. Quaranta, J. Reynoso, B. Balbi, and J. Vasquez. 2017. Effect of outdoor air pollution on asthma exacerbations in children and adults: Systematic review and multilevel meta-analysis. *PLoS ONE* 12(3):e0174050. Online at https://doi.org/10.1371/journal.pone.0174050.

- ¹⁴ Gehring, U., A.H. Wijga, G. Hoek, T. Bellander, D. Berdel, I. Brüske, E. Fuertes, O. Gruzieva, J. Heinrich, B. Hoffmann, J.C. de Jongste, C. Klümper, G.H. Koppelman, M. Korek, U. Krämer, D. Maier, E. Melén, G. Pershagen, D.S. Postma, M. Standl, A. von Berg, J.M. Anto, J. Bousquet, T. Keil, H.A. Smit, and B. Brunekreef. 2015.
 Exposure to air pollution and development of asthma and rhinoconjunctivitis throughout childhood and adolescence: A population-based birth cohort study. *Lancet Respiratory Medicine* 3(12):933–942. Online at https://doi.org/10.1016/S2213-2600(15)00426-9.
- ¹⁵ Fine, P.M., C. Sioutas, and P.A. Solomon. 2008. Secondary particulate matter in the United States: Insights from the Particulate Matter Supersites Program and related studies. *Journal of the Air & Waste Management Association* 58(2):234–253. Online at https://doi.org/10.3155/1047-3289.58.2.234.
- ¹⁶ Moura, M.C.P. 2019. Who Breathes the Dirtiest Air from Vehicles in Minnesota? *The Equation* (blog), February 3. Online at https://blog.ucsusa.org/cecilia-moura/who-breathes-dirtiest-air-from-vehicles-minnesota.
- ¹⁷ *Ibid*.
- ¹⁸ *Ibid*.
- ¹⁹ *Ibid*.
- ²⁰ *Ibid*.
- ²¹ *Ibid*.
- ²² *Ibid*.

¹¹ Pope III, C.A., and D.W. Dockery. 2006. Health effects of fine particulate air pollution: Lines that connect. *Journal of the Air & Waste Management Association* 56(6):709–742. Online at https://doi.org/10.1080/10473289.2006.10464485.

¹² American Lung Association (ALA). 2018. Particle pollution. Online at www.lung.org/our-initiatives/healthy-air/outdoor/air-pollution/particle-pollution.html, accessed July 30, 2019.

¹³ Gauderman, W.J., E. Avol, F. Gilliland, H. Vora, D. Thomas, K. Berhane, R. McConnell, N. Kuenzli, F. Lurmann, E. Rappaport, H. Margolis, D. Bates, and J. Peters. 2004. The effect of air pollution on lung development from 10 to 18 years of age. *The New England Journal of Medicine* 351(11):1057–1067. Online at https://doi.org/10.1056/NEJMoa040610.