



Sierra Nevada Research Institute
UNIVERSITY OF CALIFORNIA, MERCED
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MERCED, CALIFORNIA 95343

October 30, 2019

Dr. Thomas Hansford, Chair
Divisional Council
UC Merced

Dear Dr. Hansford:

Thank you for the opportunity to submit a resolution regarding the University of California's engagement in carbon neutrality, and with reference to sustainability and climate solutions more generally.

Adaptation to, and mitigation of, climate change is arguably the single greatest challenge facing our generation. Our collective response as citizens, scientists, educators and administrators will surely define the legacy that we leave for future generations. It was to this end that my colleagues and I involved with UCs Carbon Neutrality Initiative (CNI), Global Climate Leadership Council (GCLC), "California Collaborative for Climate Change Solutions" (C4S) and "Bending the Curve" report¹ initiated discussions with Systemwide Academic Council on a formal statement on UCs role in climate solutions. Academic Council would like to consider a statement, and has asked if the Merced DivCo can also consider a resolution. I am thus providing a three-point resolution, updated from that considered by DivCo in spring 2019, along with explanatory material requested by DivCo. This resolution thus has two audiences. First, it is presented for action by the Merced DivCo for our campus. Second, after endorsement by our DivCo, Academic Council suggests that we send them a letter asking that they to consider it for systemwide adoption.

The rationale for, and the California and UC responses to the emergent climate crisis, are impressive. More-extensive deployment of the diverse talents and multidisciplinary expertise of faculty that exist within the UC systemwide can only help.² UC Faculty are correctly viewed as ideally suited to (1) help formulate new approaches to mitigate the effects of climate change and (2) devise innovative methods in research, education and outreach, to have lasting and sustained impact. To this end, it has become clear that UCs Academic Senate, both in divisions and systemwide, have important role to play in encouraging faculty to apply their expertise to the existential threat presented by climate change.

In light of these findings, the following points are presented for consideration by DivCo.

¹ V. Ramanathan, J.E. Allison, M. Auffhammer, D. Austin, A.D. Barnosky, L. Chiang, W.D. Collins, S.J. Davis, F. Forman, S.B. Hecht, D. Kammen, C.-Y.C.L. Lawell, T. Matlock, D. Press, D. Rotman, S. Samuelsen, G. Solomon, D.G. Victor, B. Washom, 2015: Executive Summary of the Report, *Bending the Curve: 10 scalable solutions for carbon neutrality and climate stability*. Published by the University of California, October 27, 2015.

² R. Bales, S. Rebich-Hespanha, L. Leombruni, H. Hodges, A. Heeren, H. Gelbach, N. Van Leuvan, J. Christensen. 2018. *Strategic Communication to Achieve Carbon Neutrality within the University of California, Report of the UC TomKat Carbon Neutrality Project*. DOI:10.6071/H87D2S8W. URL: <https://doi.org/10.6071/H87D2S8W>.

1. Support UC's lead in demonstrating carbon neutrality. Achieving carbon neutrality is a core initiative in UC. Academic senate members across all disciplines and programs can help prioritize the University's activities and assure that the 2025 carbon-neutral objectives are met if not exceeded.
2. Support co-ordination and faculty engagement in addressing the challenge of climate change. The Academic Senate could become more proactive and for example, assemble a campus-wide Senate Task Force to (a) interface with Faculty, (b) promote Faculty participation in climate-change mitigation and adaptation activities and (c) recruit climate-solutions expertise to UC Merced's research, teaching and service missions.
3. Foster the mobilization of multi-, cross-, and trans-disciplinary teams to communicate and explain the urgency of sustainability. UC Merced's leadership in research and teaching, and its operational experience in climate action should be shared with professional and lay community networks through the deployment of "climate champions. In this mission, there is an urgent need for (a) the STEM disciplines to interact with the Humanities to help communicate and develop a comprehensive response to the challenge of climate change³, (b) multi-, cross-, and trans-disciplinary teams of Faculty to develop better ways to communicate the scope of sustainability challenges and (c) sharing scalable climate solutions developed by UC.

Thank you for your consideration. I am attaching this information in the form of a resolution, with an explanatory appendix responding to previous questions that came up. I look forward to addressing any further questions that might be raised by the Divisional Council.

Very truly yours,



Roger C. Bales

Director, Sierra Nevada Research Institute

Distinguished Professor of Civil and Environmental Engineering

Member UC Global Climate Leadership Council

³ <https://www.capeandislands.org/post/why-science-needs-humanities-solve-climate-change#stream/>

RESOLUTION TO ADDRESS CLIMATE ACTION

WHEREAS: Adaptation to, and mitigation of, climate change is arguably the single greatest challenge facing our generation. Our collective response as citizens, scientists, educators and administrators will surely define the legacy that we leave for future generations.

WHEREAS: The University of California, Merced has pledged to become carbon neutral in its campus operations and purchased electricity by 2020. Other UC campuses and the UC system have pledged carbon neutrality by 2025. The State of California has pledged total, economy-wide carbon neutrality by 2045.

WHEREAS: UC Faculty are ideally suited to (1) help formulate new approaches to mitigate the effects of climate change and (2) devise innovative methods in research, education and outreach, to have lasting and sustained impact. To this end, it has become clear that UCs Academic Senate, both in divisions and systemwide, have important role to play in encouraging faculty to apply their expertise to the existential threat presented by climate change.

BE IT RESOLVED THAT: The Merced Senate supports UCs lead in demonstrating carbon neutrality. Achieving carbon neutrality is a core initiative in UC. Academic senate members across all disciplines and programs can help prioritize the University's activities and assure that the 2020 carbon-neutral objectives are met if not exceeded.

BE IT RESOLVED THAT: The Merced Senate supports co-ordination and faculty engagement in addressing the challenge of climate change. The Academic Senate can become more proactive and for example, assemble a campus-wide Senate Task Force to (a) interface with Faculty, (b) promote Faculty participation in climate-change mitigation and adaptation activities and (c) recruit climate-solutions expertise to UC Merced's research, teaching and service missions.

BE IT RESOLVED THAT: The Merced Senate supports fostering the mobilization of multi-, cross-, and trans-disciplinary teams to communicate and explain the urgency of sustainability. UC Merced's leadership in research and teaching, and its operational experience in climate action should be shared with professional and lay community networks through the deployment of "climate champions. In this mission, there is an urgent need for (a) the STEM disciplines to interact with the Humanities to help communicate and develop a comprehensive response to the challenge of climate change, (b) multi-, cross-, and trans-disciplinary teams of Faculty to develop better ways to communicate the scope of sustainability challenges and (c) sharing scalable climate solutions developed by UC.

Respectfully submitted,
Professor Roger C. Bales
Member UC Global Climate Leadership Council