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Office of the Provost

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MEMORANDUM

February 1, 2017

To: Co-Chairs, Senior Leaders Climate Action Group
Lance R. Collins, Joseph Silbert Dean of Engineering
William E. Sitzabee, Interim Vice President for Infrastructure, Properties and Planning

From: Michael I. Kotlikoff, Provost

Subject: Options for Achieving a Carbon Neutral Campus by 2035

Thank you for your leadership in the development of the "Options for Achieving a Carbon Neutral Campus by 2035" report. This detailed financial analysis and feasibility study expands upon the framework built in the university's Climate Action Plan, and will allow us to make decisions based on costs and benefits in the context of our academic mission and role as a global thought leader. Cornell faculty, staff, and students are committed to developing solutions to global issues, and it comes as no surprise that our campus community wants not only to study, but also to actively participate in combating climate change by working to eliminate our own carbon footprint.

It is clear from the comprehensive and thoughtful report that meeting our goal by 2035 will require creativity and investment as we look for ways to reduce our energy demand and our reliance on fossil fuels. It is our responsibility as a land-grant institution to strike a delicate balance between offering the highest quality, cost-effective education for our students and creating knowledge that advances society, while also demonstrating responsible stewardship of our environment and leading in the effort to reduce our carbon footprint.

The report provides a thoughtful menu of options, many of which can, and are, currently being implemented across campus. Since the report was released, three new Cornell solar farms have gone online and the university has saved more than $154,000 and 595,000 pounds of carbon dioxide through conservation efforts made over the 2016 winter break. We should be proud of our many accomplishments to date, but must stay committed to facing the challenges that lay before us—as a campus and as members of a global community.

One of the biggest obstacles in reaching carbon neutrality, not only for Cornell's Ithaca campus but also for institutions and businesses in cold-weather climates, is the elimination of fossil fuel-dependent heating. Upon review of the costs and benefits of the options contained in the report, it is clear to me that Earth Source Heat—combined

with solar, wind and energy efficiency measures—is currently by far the most practical option for achieving carbon neutrality on the Ithaca campus by 2035.

This emerging technology has the greatest potential for heating the campus in our climate and the highest likelihood of attracting investment partners that would defray the significant cost of its implementation. Under the direction of the College of Engineering, in partnership with IPP, we will know within a few years if Earth Source Heat is truly feasible as a campus-wide utility. If Earth Source Heat is not found to be feasible, we should reevaluate available options including using ground-source heat pumps and other renewable options in place of natural gas heating.

Cornell is uniquely positioned as a leader in sustainability, but achieving carbon neutrality will require leveraging the expertise, enthusiasm, and commitment of all faculty, staff, and students. I encourage you to work with the President's Sustainable Campus Committee and others to engage all members of our campus community to collaborate on innovative solutions and advance campus sustainability initiatives.

cc: Members of the Senior Leaders Climate Action Group:
Beth Ahner, Professor of Biological and Environmental Engineering and Senior Associate Dean, College of Agriculture and Life Sciences
Jeffrey Bergfalk, Doctoral Candidate, Mathematics
Robert Bland, Associate Vice President for Energy and Sustainability
Edwin A. Cowen, Professor of Civil and Environmental Engineering and the Kathy Dwyer Marble and Curt Marble Faculty Director for Energy, David R. Atkinson Center for a Sustainable Future
Robert Howarth, the David R. Atkinson Professor of Ecology and Evolutionary Biology
Barbara Knuth, Senior Vice Provost and Dean of the Graduate School
David Lodge, the Francis J. DiSalvo Director of the David R. Atkinson Center for a Sustainable Future
Ryan Lombardi, Vice President for Student and Campus Life
Joel Malina, Vice President for University Relations
Alan Mathios, the Rebecca Q. and James C. Morgan Dean of Human Ecology
Mark Milstein, Clinical Professor of Management and Director of the Center for Sustainable Global Enterprise at the Samuel Curtis Johnson Graduate School of Management
Mary Opperman, Vice President and Chief Human Resource Officer
Tishya Ravichander Rao '18, Urban and Regional Studies in the College of Architecture, Art and Planning
Paul Streeter, Vice President for Budget and Planning
Sarah Zemanick, Director of the Campus Sustainability Office