

Ozge Kaplan, Senior Environmental Engineer in EPA's National Risk Management Research Laboratory

Air and Energy Management Division

[Mailing Address](#)

kaplan.ozge@epa.gov

Area of expertise:

- Methods: Life cycle assessment, multi-objective optimization methods, data mining techniques, environmental and energy systems modeling, environmental and energy economics, triple bottom line analysis, system dynamics.
- Emissions, health, environmental impacts, and mitigation options for alternative end-use energy choices.
- Life cycle assessment of alternative fuels and advanced energy technologies.
- Support of local, state and regional decision making through development of community-level energy-water systems models.
- Emissions growth scenarios for industrial, building and transportation sectors.
- Advanced decision support tools for municipal solid waste management.

Select publications:

K.E. Brown, T.A. Hottle, R. Bandyopadhyay, S. Babaee, R.S. Dodder, P.O. **Kaplan**, C. Lenox, D. Loughlin. [Evolution of the US energy system and related emissions under varying social and technological development paradigms: Plausible scenarios for use in robust decision making.](#) Environmental Science & Technology 52(14):8027-8038. 2018.

C. Lenox, P.O. **Kaplan**. [Role of natural gas in meeting an electric sector emissions reduction strategy and effects on greenhouse gas emissions.](#) Energy Economics 60:460-468. 2016.

R.S. Dodder, P.O. **Kaplan**, A. Elobeid, S. Tokgoz, S. Secchi, L.A. Kurkalova. [Impact of energy prices and cellulosic biomass supply on agriculture, energy, and the environment: an integrated modeling approach.](#) Energy Economics 51:77-87. 2015.

A. Procter, O. **Kaplan**, and R. Araujo. [Net Zero Fort Carson: Integrating Energy, Water, and Waste Strategies to Lower the Environmental Impact of a Military Base.](#) Journal of Industrial Ecology 20(5):1134-1147. 2015.

E.C. Gentil, A. Damgaard, M. Hauschild, G. Finnveden, O. Eriksson, S. Thorneloe, P.O. **Kaplan**, M. Barlaz, O. Muller, Y. Matsui, R. Li, T.H. Christensen. [Models for waste life cycle assessment: Review of technical assumptions.](#) Waste Management. 30(12): 2636-2648. 2010.

P.O. **Kaplan**, J. Decarolis, S. Thorneloe. [Is it better to burn or bury waste for clean electricity generation?](#) Environmental Science & Technology 43(6):1711-1717. 2009.

View other research publications by [Ozge Kaplan](#).

Education:

- Ph.D., North Carolina State University, Raleigh, NC; Civil and Environmental Engineering and minor in Operations Research, 2006
- M.Sc., North Carolina State University; Civil and Environmental Engineering, 2001
- B.S., Middle East Technical University, Ankara, Turkey; Environmental Engineering, 1999

Professional Experience:Workgroups and Project Leads

- Serve as Project Lead in the Air and Energy Research Program (2016-present):
 - Implications of End-use Choices – Assessments of and Improvements in Environmental Implications of Energy Choices and Usage
- Serve as Task Leads in the Air and Energy Research Program (2016-present):
 - Exploration of evolving landscapes for the utilization of energy in the end-use sectors: technology, behavior, environmental and economic impacts and consequences
 - Development of methods and tools for supporting local- and regional-scale decision makers address energy and environmental issues.
- Energy Information Administration's Annual Energy Outlook: Oil & Gas Working Group
- EPA's Office of Air Quality Planning and Standards Emissions Projections Workgroup

Committees and Board Memberships

- Program Committee Member for 2018 USAEE 36th Annual Meeting
- Member of International Association for Energy Economics and US Association for Energy Economics
- Technical Proposal Reviewer for National Renewable Energy Laboratory's Joint Institute for Strategic Energy Analysis (2010-2012, 2014)
- Serve in Project Advisory Committee and Technical Evaluation Panel for New York State Energy Research and Development Authority (2016-present)
- Reviewer for 4th National Climate Assessment (2017)

Awards and Honors

- US EPA National Honor Award, Russel Train Sustainability Award for Municipal Solid Waste Decision Support Team (2014)
- US EPA Bronze Medal for work conducted under ACE National Program Team (2014)
- US EPA Bronze Medal for Commendable Service: MARKAL Development and Application Team (2013)
- Oak Ridge Institute for Science and Education Fellow at EPA (2007-2010)

[Science Matters: New MARKAL Tool Designed to Help Cities Meet Environmental Protection Goals](#)