## CISAC STANFORD

## CENTER FOR INTERNATIONAL SECURITY AND COOPERATION

Varun Sivaram, Recipient of The William J. Perry Prize "Sunny Side Up: Characterizing the US Military's Approach to Solar Energy Policy"

Since 2007, the Department of Defense (DoD) has invested considerable resources and research into deploying solar panels to power its domestic military bases. This thesis seeks to apply theoretical models of policymaking to explain the enactment, implementation, and revision of the DoD's solar energy policy. In none of these stages can an idealized rational actor model account for the military's decision-making process; the panels purport to enhance energy security but do not do so, they are expensive, and they appear to strive for but fail to achieve federally mandated renewable electricity targets. Kingdon's multiple streams analysis best accounts for the timing of the DoD's decision to pursue solar, due to an open —policy window in 2005. Furthermore, theories of ritualistic bureaucratic compliance in hierarchies explain the haphazard pattern of implementation. Finally, bounded rationality and incrementalism correctly predict the DoD's incomplete decision-making process when revising solar energy policy to include secure microgrid technology. These insights can and should inform DoD officials to critically analyze the motivations behind pursuing solar technology, consider nonrenewable microgrids to meet their stated goals of energy security, and lobby Congress to either allocate more funding for expensive renewable technology or relax its mandates in light of national security concerns.

**Jaclyn Tandler,** Recipient of The Firestone Medal for Excellence in Undergraduate Research

"Let Them Eat Yellow Cake: Understanding the History of France's Sensitive Nuclear Export Policy"

Between 1957 and 1981, France was a liberal supplier of sensitive nuclear technology, material and equipment. During these years, France signed a total of nine contracts for sensitive nuclear assistance, six of which contributed to covert nuclear weapon programs. However, in the early 1980s, France stopped exporting sensitive nuclear technology and formally defined its nuclear export policy. This thesis attempts to understand why France exported sensitive nuclear technology to non-nuclear weapon states for over two decades and why France then halted its sensitive export activity and became a more responsible nuclear supplier in the early 1980s. It concludes that in the absence of a definitive national nonproliferation and nuclear export policy, economic interests and pressure from the domestic bureaucracy – namely, the French Atomic Energy Agency and its subsidiary firms - drove France's nuclear export policy. However, in 1974, a new leader came to power in Paris, President Valéry Giscard d'Estaing, whose conception of France's strategic interests differed drastically from his Gaullist predecessors. In the interest of preventing the further spread of nuclear weapons and fostering a closer French-US relationship, President Giscard established a new executive council charged with upholding a responsible export policy. Through this institution, in the late 1970s, the President enacted several policies that effectively reined in France's liberal export activity. Situated in the broader context of global nuclear trade, the findings of this thesis offer insights into the motivations of nuclear suppliers in the international system and contain lessons on how to promote policies that constrain the spread of proliferation-prone technology.