WATERLOO INSTITU**TE FOR NANOTECHNOLOGY AND**WATERLOO INSTITU**TE FOR SUSTAINABLE ENERGY** 

## distinguishedlectureseries



## Energy Technologies, Energy Security & Climate Change

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Principal Scientific Adviser to the Government of India Chairman of the Scientific Advisory Committee to the Cabinet

## R. CHIDAMBARAM

Per capita electricity consumption is an important parameter determining the Human Development Index. For a 'developing' country like India, per capita electricity consumption must increase manifold before it can become a 'developed' country in the fullest sense of the term. Nuclear and renewables are important energy technology options, for both developing and developed countries. For nuclear to be a sustainable option, in the context of energy security and the climate change threat, the nuclear fuel cycle must be closed, including with thorium utilization. In the shorter-term, low (or relatively lower) carbon technologies, ranging from advanced ultra-supercritical thermal power plant technologies to carbon capture and storage technologies, have to be developed. Accelerator-driven systems and nuclear fusion can also emerge as important technologies in the future. International collaboration in energy technologies, based on enlightened self-interest as well as altruism, is desirable for global energy security.





Tuesday, October 26th, 2010 2:00 - 3:00 pm

**Reception to Follow**DC 1302
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