

CHARTER OF THE NSO PROGRAM ADVISORY COMMITTEE

I. Purpose and Scope

The purpose of the Next Step Options activity is to investigate and assess various opportunities for advancing the scientific understanding of fusion energy, with emphasis on plasma behavior at high energy gain and for long duration. The Next Step Options (NSO) study has been organized as a national integrated physics/engineering design activity within the Virtual Laboratory for Technology (VLT). The NSO program's objective is to develop design options and strategies for burning plasmas in the restructured fusion sciences program, considering the international context. Examples of specific tasks to be pursued include investigation of a modular program pathway, with initial emphasis on the burning plasma module. The initial effort has been focused on a design concept called the Fusion Ignition Research Experiment (FIRE) that includes both burning plasma physics and advanced toroidal physics mission objectives.

II. Responsibilities

The NSO PAC will review the NSO program under the general auspices of the VLT Program Advisory Committee and initially focus on providing advice on:

- The FIRE mission
- The FIRE physics basis and
- Engineering design

The NSO PAC will provide this advice to the VLT Director with a copy to the VLT PAC Chair. The NSO PAC will address key issues developed by the VLT Director in consultation with the VLT PAC Chair, the NSO Project Director and/or suggested by the NSO PAC.

III. Membership

The NSO PAC members and Chair will be appointed by the VLT Director. Members will be chosen by the VLT Director in consultation with the VLT PAC and NSO PAC Chairs. Members will be appointed for 2 or 3-year terms. Membership may vary from time to time as the needs of the study evolve.

IV. Meetings

Meetings will be scheduled by the NSO Project Director in consultation with the VLT Director and the NSO PAC Chair and membership, typically at semiannual intervals. An agenda will be developed in advance of each meeting, in consultation with the NSO PAC Chair. At the close of each meeting, the NSO PAC will verbally report its findings and recommendations to the VLT Director and study team. Its written report will be submitted within two weeks to the VLT Director and VLT PAC Chair. The VLT PAC will be invited in its normal course of business to comment on NSO activities as has been done so far.