

The Path Forward after COP 21

A Declaration by Societies of Nuclear Scientists and Engineers about Climate Change

September 27, 2016

Considering that:

- The United Nations' Framework Convention on Climate Change (UNFCCC) Conference of the Parties #21 (COP 21) was concluded with the international Paris Agreement to hold the increase in the global average temperature henceforth to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels.
- This limit on the temperature rise can only be kept by effecting a substantial reduction in the world-wide emission of anthropogenic greenhouse gases (AGHGs).
- The combustion of fossil fuels is the main cause of AGHG emission.
- Renewable energy sources (as traditionally defined) are an important means by which to reduce AGHG emissions but cannot alone deliver the required reduction.
- Nuclear energy is a safe, clean and sustainable energy source that produces electricity economically and reliably with near-zero AGHG emissions and that currently provides about one-third of the world's low carbon electricity generation and much more in many countries.

We recommend that the following be considered by energy policy makers at all levels in their activities to support their respective country's Intended Nationally Determined Contribution (INDC) submitted to COP 21.

1. Policies should consider any technology that will reduce anthropogenic greenhouse gas (AGHG) emissions. No such technology should be restricted or excluded.
2. The current or potential role of nuclear energy to reduce AGHG emissions should be evaluated in the context of current conditions in each respective country. The Nuclear Societies listed below offer their assistance in doing this evaluation.
3. The economic evaluation of any technology should include all life-cycle external costs such as health impacts, environmental impacts, and socioeconomic impacts.
4. Financial mechanisms specified in the Paris Agreement should be available as appropriate relative to application of any technology without discrimination.
5. Policies should facilitate replacing existing fossil-fuel based electricity generation as quickly as practical with any technology that has much lower AGHG emissions.
6. Policies should facilitate replacing existing fossil-fuel based transportation (both public and individual) with electricity-based transportation consistent with the schedule for converting the electricity generation system to produce minimum AGHG emissions.

Prepared by the International Nuclear Societies Council (INSC) on behalf of the following Societies of Nuclear Scientists and Engineers:

American Nuclear Society
Asociación Argentina de Tecnología Nuclear
Associação Brasileira de Energia Nuclear
Atomic Energy Society of Japan
Australian Nuclear Association
Austrian Nuclear Society
Belgian Nuclear Society
Bulgarian Nuclear Society
Canadian Nuclear Society
Croatian Nuclear Society
Czech Nuclear Society
Egyptian Society of Nuclear Science and Applications

European Nuclear Society
Finnish Nuclear Society
French Nuclear Energy Society
German Nuclear Society
Hungarian Nuclear Society
Indian Nuclear Society
Israel Nuclear Society
Italian Nuclear Association
Korean Nuclear Society
Latin American Section
Lithuanian Nuclear Energy Association
Netherlands Nuclear Society
Nuclear Energy Society Taipei
The Nuclear Institute

Nuclear Society of Russia
Nuclear Society of Serbia
Nuclear Society of Slovenia
Nuclear Society of Thailand
Pakistan Nuclear Society
Polish Nuclear Society
Romanian Nuclear Energy Association
Slovak Nuclear Society
Sociedad Nuclear Mexicana
Spanish Nuclear Society
Swedish Nuclear Society
Swiss Nuclear Society