Sustainability of Research Infrastructures for fundamental physics

Accelerator Sustainability @ Snowmass & ICFA Sustainability Panel

Brookhaven National Laboratory

T. Roser (BNL)

HECAP+ Report (US perspective)

Brookhaven National Laboratory

A. Paul (Northeastern University)

Report from Sustainability WG & Discussion session

Brookhaven National Laboratory

M. Titov (CEA-Saclay)

Snowmass Panel for Sustainable Accelerators and Colliders
- Inputs to 2020-23 Snowmass process

ICFA sustainability panel promote developments on
energy efficient accelerator concepts, technologies and strategy for operation

HECAP+ HE Cosmology Astroparticle and Nuclear Physics Community
- Research impact across six areas: computing, energy, food, mobility, research infrastructure/technology, and resources/waste

Status Report on LDG WG on Sustainability Assessment of future accelerators and Discussion

Tomorrow R&D efforts for more sustainable accelerators presented
iSAS, PERLE, bERLinPro, ERL roadmap

Any comments or suggestions to the WG report outline ?

Where can large accelerator labs develop new common approaches?

- Creation of competence centers for sustainable designs and LCA methodology (software, databases, …)

- Coordinated R&D on green accelerator technologies (permanent magnets, greener copper, niobium, materials with reduced activation potential …)

- Responsible procurement, electricity provisioning; generation / storage from renewables for large-scale accelerator RI’s

What are the US Labs plans for a roadmap to increase sustainability of RI’s and documentation of best practices? Is reduction of energy consumption in US-RI being considered?