

Report on last Exco in Japan (1)

Place: NEDO, Kawasaki, Japan, Date: July 3 -5, 2017



NEDO HQ (Kawasaki, Japan)



HTS Activity of member countries and discussion

Typical example: New EU project of SFCL

Cost effective FCL using advanced superconducting tapes for future HVDC grids **FastGrid**

Superconducting Fault Current Limiter (SFCL):

- First commercialization in medium voltage
- Strong interest in High Voltages (HV), especially in meshed HVDC grids (Supergrids)



Supergrids:

A solution for the future to transmit very large renewable energies over long distances, smoothing generation & consumption variations. Fault current management remains an hurdle.

Statement: present HTS tapes are not suitable for HV FCL applications and enhancement of the operation security under HV is required.

FastGrid Significant advances of the attractiveness of SFCLs by improving REBCO tapes, especially in their current limitation mode.

L. Marini - HTS Workshop at NEDO - April 2017, Kawasaki

Guest presenter
NEXANS, Jean-
Maxime.Saugrain

Recent Activities at Nexans in the field of Superconducting Systems



IEA Meeting - Kawasaki - July 4, 2017

Nexans
BRING ENERGY TO LIFE

This time the meeting focused on Japanese (Host) activity and the HTS commercialization.



Report on last Exco in Japan (2)

Japanese Activity



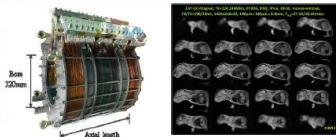
NEDO HTS national project
SEI (Cable)
Railway Tech. Research Inst. (cable)
Mitsubishi Electric(MRI)
Fujikura (Wire)
Taiyo Nippon Sanso (TurboBrayton)

The public
information of
May 24, 2016

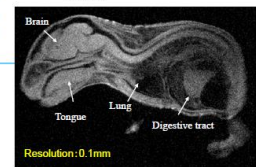
High-Tc Superconducting magnet for MRI

Succeed in World's first 3 Tesla MRI with High-Temperature Coils at Feb. 2016

TOKYO, May 24, 2016 – Mitsubishi Electric Corporation (TOKYO: 6503), Kyoto University and Tohoku University announced today the world's first successful 3 tesla Magnetic Resonance Imaging (MRI) using a small model MRI with high-temperature superconducting coils that do not require cooling with increasingly scarce liquid helium. Mitsubishi Electric expects that the high-quality images made possible at this magnetic field strength will contribute to earlier detection of illnesses.



Multi-slice image



Mouse fetus image
(about 25mm long)

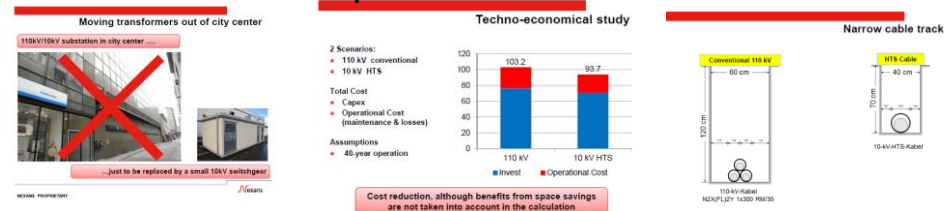


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Round Table Discussion for HTS Cable commercialization

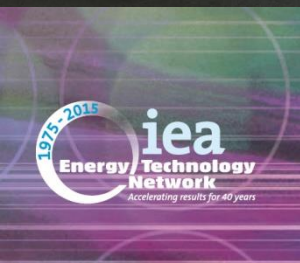
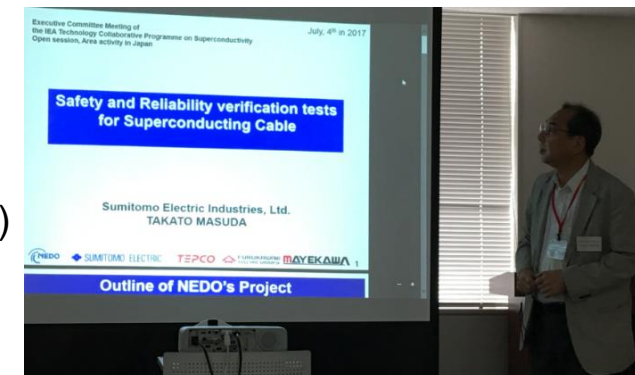


Merit of the HTS power cable conducted now



Discussion:

- /Effect of HTS Cable
- /Issues for commercialization
- Economics
(Costs of wire, cooling sys.)
- Reliability
- Standardization
- and so on.



Report on last Exco (3): Extra data, Banquet

Exco at EUCAS2017,
Geneve, Sept. 20

Host NEDO Director
Watanabe-san



2nd day Official Banquet at Nikko Kawasaki Hotel
with Exco, NEDO, and Presenters



Luciano, Greeting



1st day Dinner with members at Typical Japanese
Restaurant.

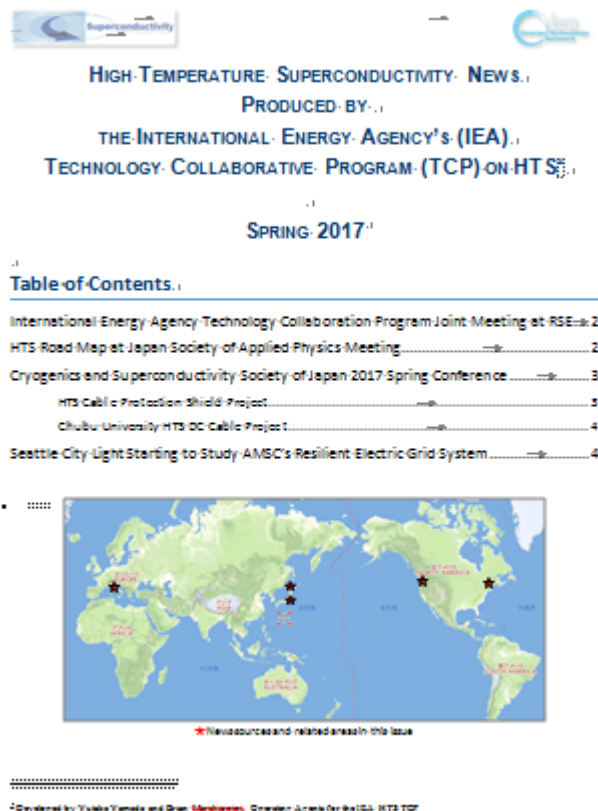
HTS-News and Trend (Journal)

Exco at EUCAS2017,
Geneve, Sept. 20

Object and Contents

- /Hot news and trend
- /Focused mainly on Electric Power Applications
Cable, Current Limiter, Motor, Generator
- /National project and Governmental Funding Trend

Quarterly issued (Spring, Summer, Fall, Winter).



World-wide
news are
selected for
the executives,
high level
technology
leaders for
their guideline.

Latest Article

-TCP cooperation at Exco in
Milan,RSE-



Next issue will includes

Exco in Japan

EUCAS

IWC-HTS at KIT

China ASC

other topics in each area