



Materials Mag!c

日立金属

Amorphous Metals

**Commitment
to Energy
Conservation**



Reduce Green-house Effect



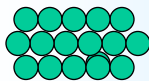
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Amorphous Metals

Understanding Amorphous Metals

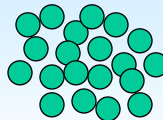
SiFe



Silicon steel has a rigid crystal structure

Oppose to the rigid grain of silicon steel, Amorphous Metals does not have a well defined crystal structure.

Amorphous



Easier to Magnetize and Demagnetize



Low Loss

Ideal for electricity energy conversation - AMDT



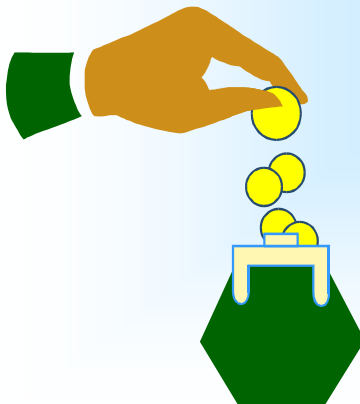
Amorphous Metal Distribution Transformer is the key to improve utility economics and enhancing energy saving efforts

Improve Energy Efficiency

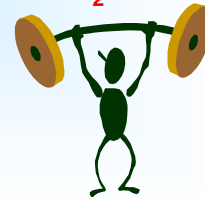
Amorphous Metal Distribution Transformer reduces CO_2 and SO_2 emission and protect the environment

Environmental Protection

Features of Amorphous Metals



Amorphous Metal Distribution Transformer (AMDT) saves up to **80%** of the core loss of conventional transformer and significantly reduces CO_2 and SO_2 emission.



AMDTs Benefits

China as example

If Fully Converted to Amorphous Metal Distribution Transformers **Now**



15-20,000,000,000 KWh
could be saved **in a year**



4-5GW
Generation
Capacity
Investment is saved



10-16,000,000 Tons
CO₂ Reduced

**all figures are best estimations based on public information*

Payback Model



Financier finances the Grid or PSB for the price premium / total price of AMT

Grid or PSB uses part of the savings to repay the financier

Net saving by the Grid or PSB

Possible CDM Revenue

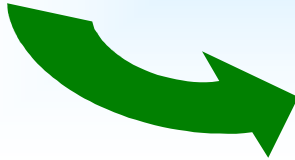
Bring Along the Benefits

Chinese Government Efforts on Energy Saving & Environmental Protection Development



AMDTs pay significant role in most of the energy plans.

Amorphous Metal Distribution Transformer fulfilling the performance and economical needs.



Reduce Green-house Effect



Commitment to Energy Conservation