

Eco-design Consultation Forum

T&D Europe Recommendations

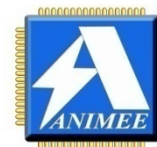
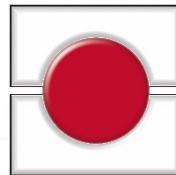
M Sacotte

T&D
&europe

The European Association of the Electricity Transmission
and Distribution Equipment and Services Industry

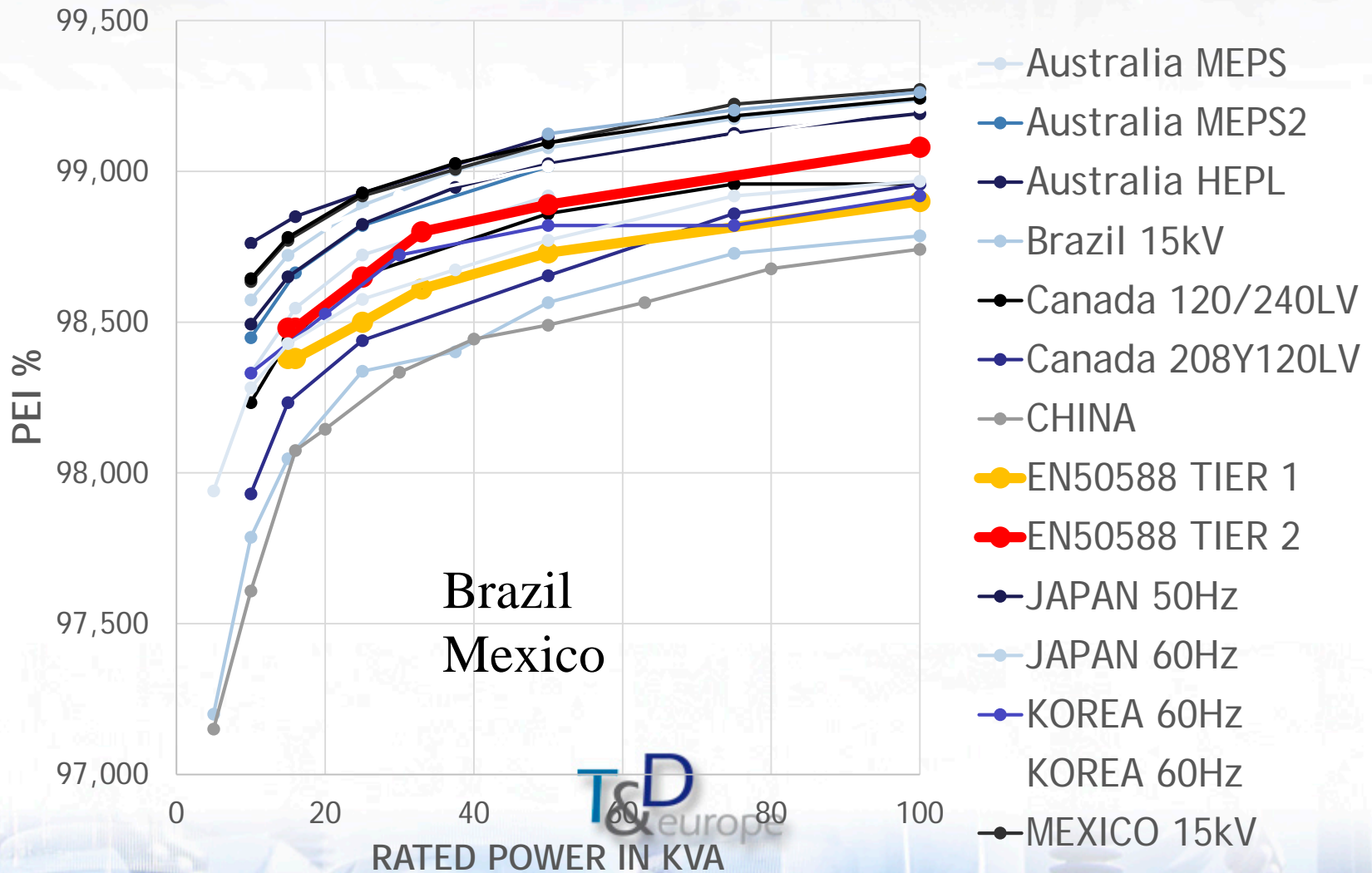
T&D Europe IN A NUTSHELL

- ✓ T&D Europe is the voice of the manufacturers of electrical equipment and systems for transmission and distribution of electrical energy
- ✓ Created in 2008 from CAPIEL HV and COTREL
- ✓ The sector account for a production worth €25 billion, and employ over 200,000 people in Europe.
- ✓ Members are 12 National associations and corporate members



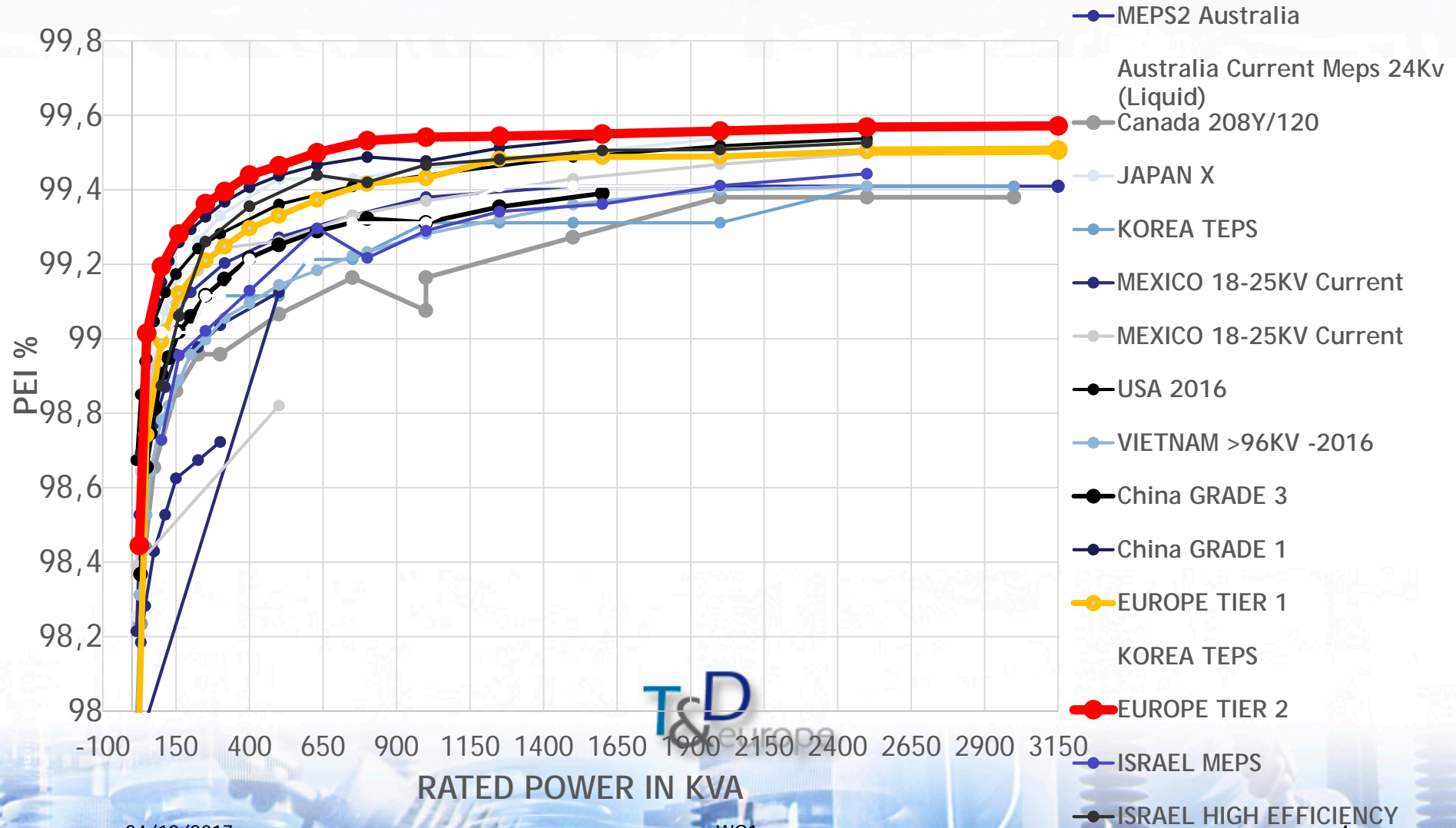
Comparison of the efficiency on single phase

PEI SINGLE PHASE TRANSFORMERS



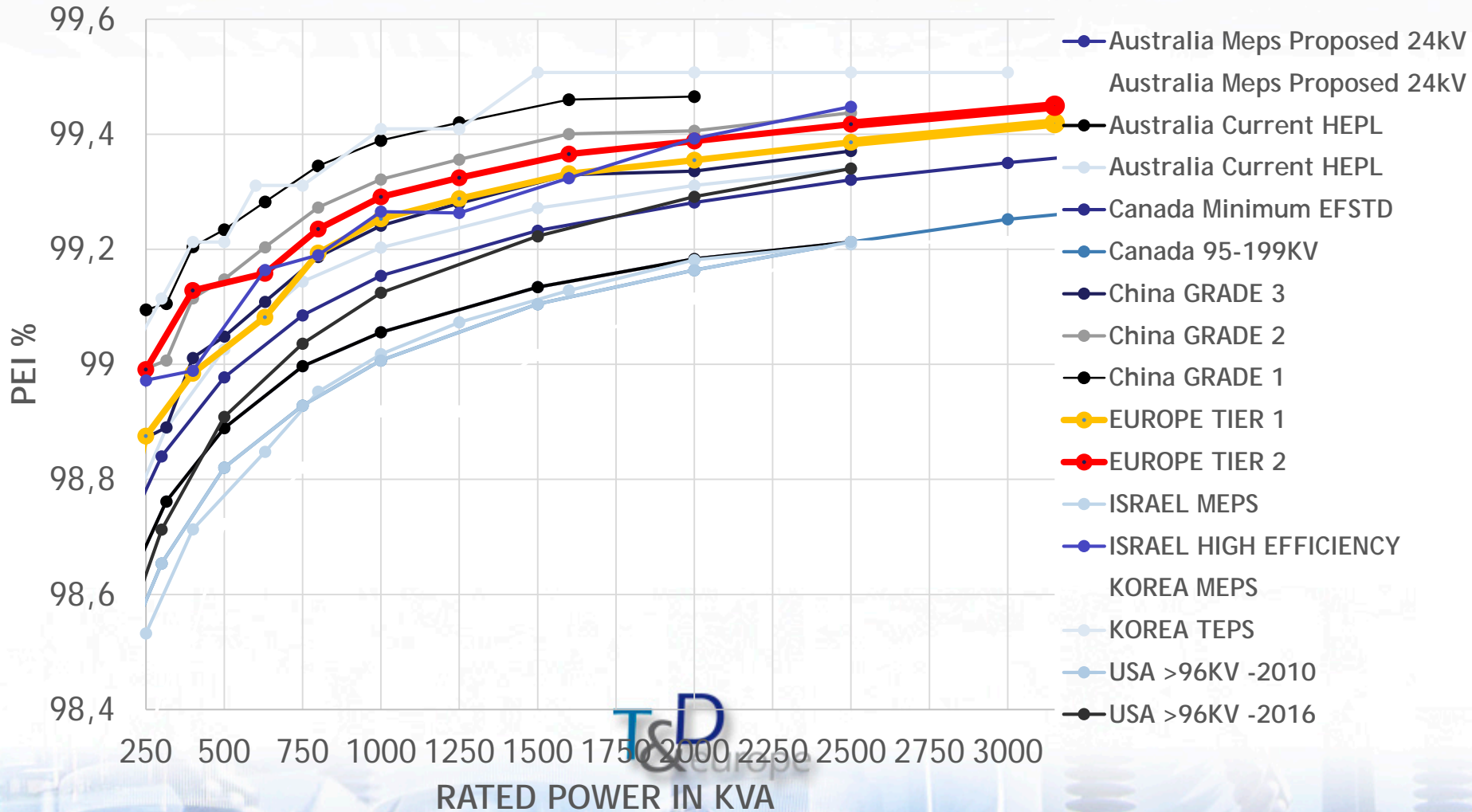
Comparison of the efficiency in the world

PEI 3 Phases LIQUID IMMERSED TRANSFORMERS



Comparison of the efficiency in the world

PEI 3 Phases CAST RESIN TRANSFORMERS

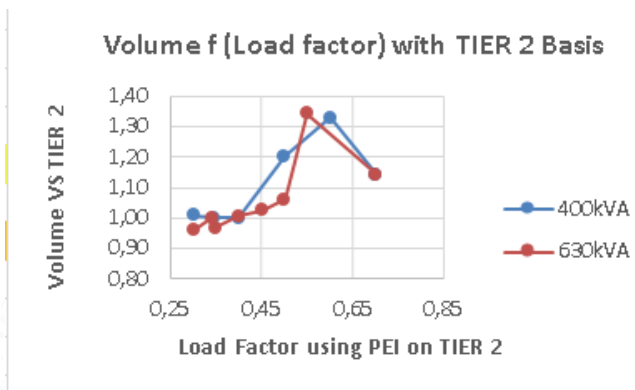


Eco-design Standardisation POSITIVE IMPACT

- ✓ Before regulation: 435 types
300 Liquids 135 Dry type
- ✓ With the regulation (1/07/2015) 35 types
20 Liquids 15 Dry type
Less components (Tanks, Aluminium, copper foils)
- ✓ If TIER 2 with fixed losses is replaced by PEI or many list of losses
Infinite number of combinations $15 \times P_k \times P_0 = \infty$
Multitude of tanks and Aluminium, Copper foils, Magnetic steel kind



$$P_0, P_k = f(\text{Load factor})$$



- PEI >>>> Destabilise and fragment the market
- PEI >>>> Limits business country to country
- PEI >>>> Increase the price
- PEI >>>> Create trouble on employment



Impact study has to be undertaken before taking any decision

Main recommendations from Manufacturers

The regulation fulfils its main **targets** and Manufacturers recommend **minimum change** to avoid disturbing the **market** and the **employment**

- Maintain the **fixed values of losses** of TIER 2 **without** any additional alternatives but with possible **derogations** keeping TIER 1 values
- Open **concessions** for **Large Power Transformers** but without obligation to use **high grade** of Magnetic steel
- Eliminate current **concessions** for double voltage
- **Agree** with the proposal with **small amendments** for the **repair** of transformers