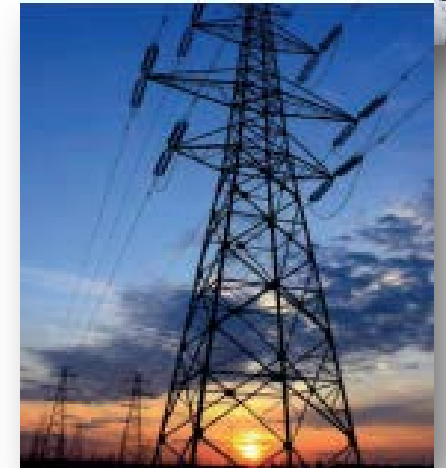




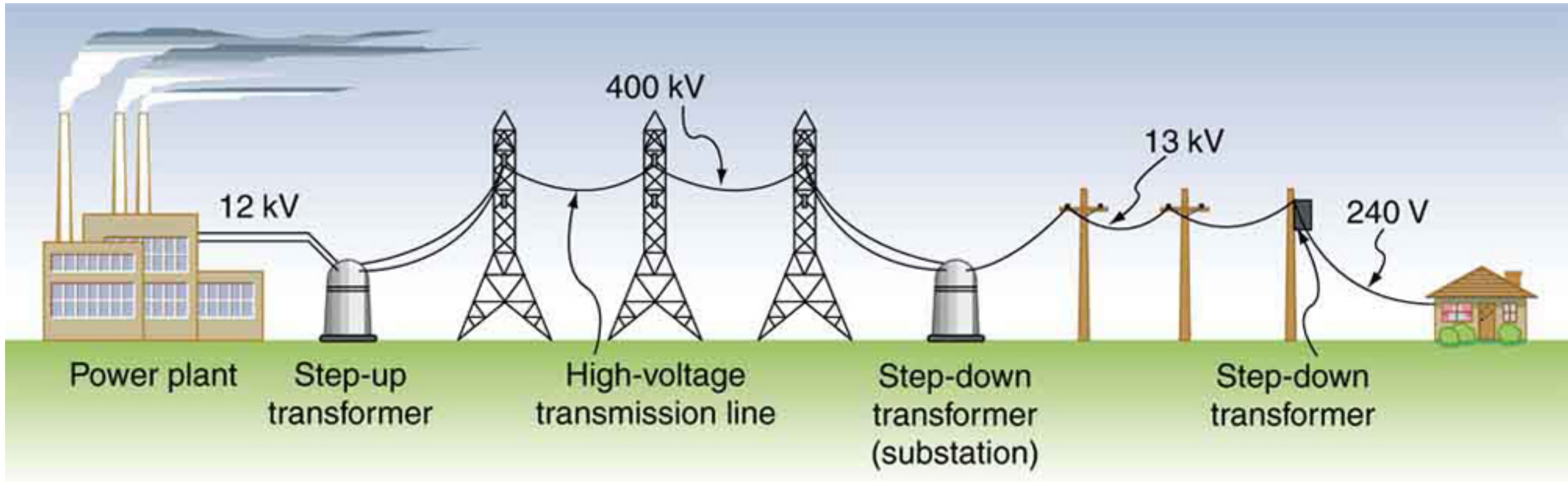
North American Steel Trade Committee
Electrical Steel Presentation
June 8, 2017

Electrical Steels – Helping to Energize the World

- Global leader in production of high permeability electrical steels used to manufacture energy-efficient power generation and distribution transformers
- Only North American producer of infrastructure critical grain-oriented and high-end non-oriented electrical steels
- Grain-oriented electrical steels (GOES) used in cores and cores assemblies for electrical transformers, including the power transformers and the step-up and step-down distribution transformers.
- Non-oriented electrical steel (NOES) used in large cores for electrical power generation and motors for large industrial machines and hybrid and electric automobiles



Grain Oriented Electrical Steels (GOES)



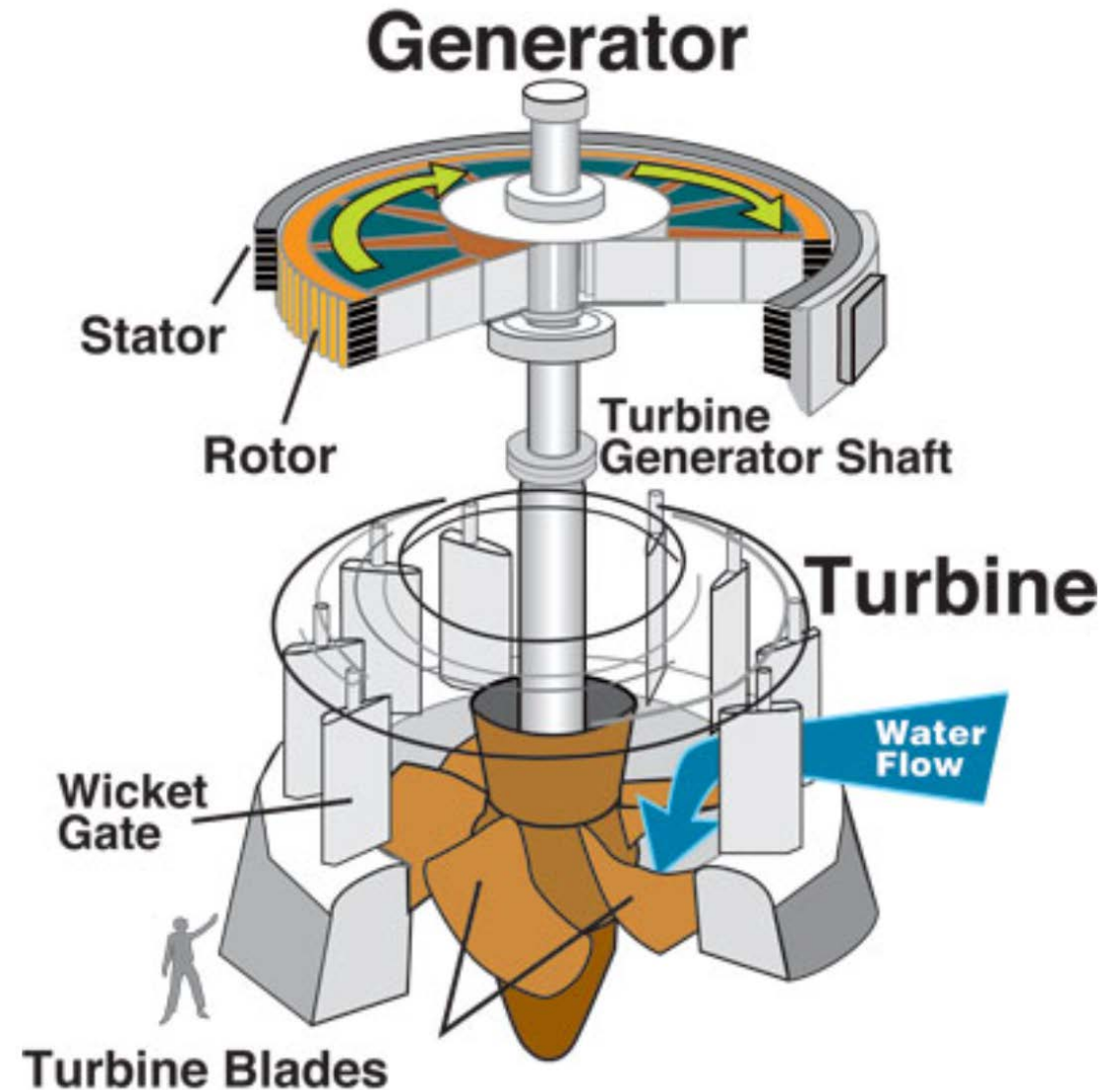
Grain Oriented Electrical Steels (GOES) – Transformers



What is a generator?

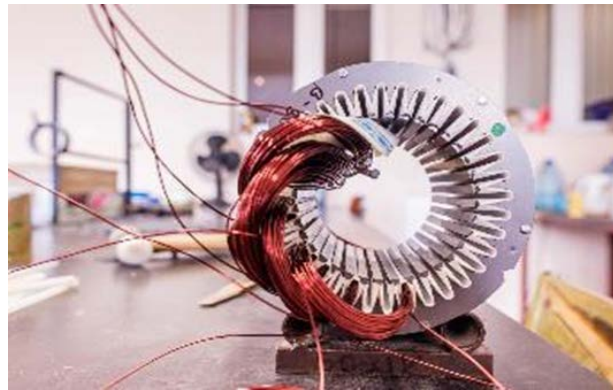
A generator converts mechanical energy – water, steam or wind – into electrical energy. The two electromagnetic components are the stator and rotor. The stator is usually made using NOES laminations while the rotor is made with either NOES or “Pole Sheet”.

Image is from US Geological Service web site,
<https://water.usgs.gov/edu/hyhowworks.html>



Non-Oriented Electrical Steel (NOES) – Motors

Large Industrial Motors



Hybrid/Electric Motors



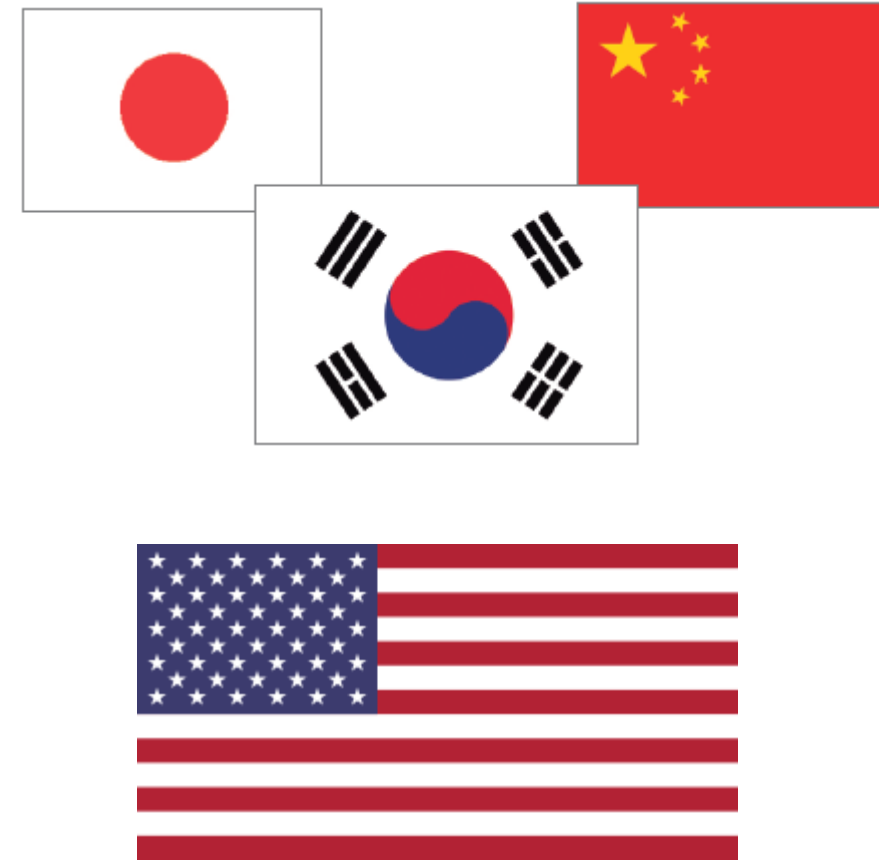
China's Build-up of Electrical Steel Making Capacity



- Prior to 2009, AK Steel exported electrical steel to China
- In 2009, China imposed baseless countervailing duty remedies on GOES imports from the U.S.
- The USG filed a case with the WTO challenging China over the imposition of these duties which the U.S. eventually won - five years later
- By that time the damage was done
- China used that 5-year period to dramatically increase its production of electrical steel through state-sponsored subsidization and sell at prices so low no one could compete
- Over the last ten years, China's GOES capacity has almost tripled that of the United States allowing China to foreclose the Chinese market and be a net exporter, flooding the global market

Global Overcapacity and Impact of Electrical Steel Imports

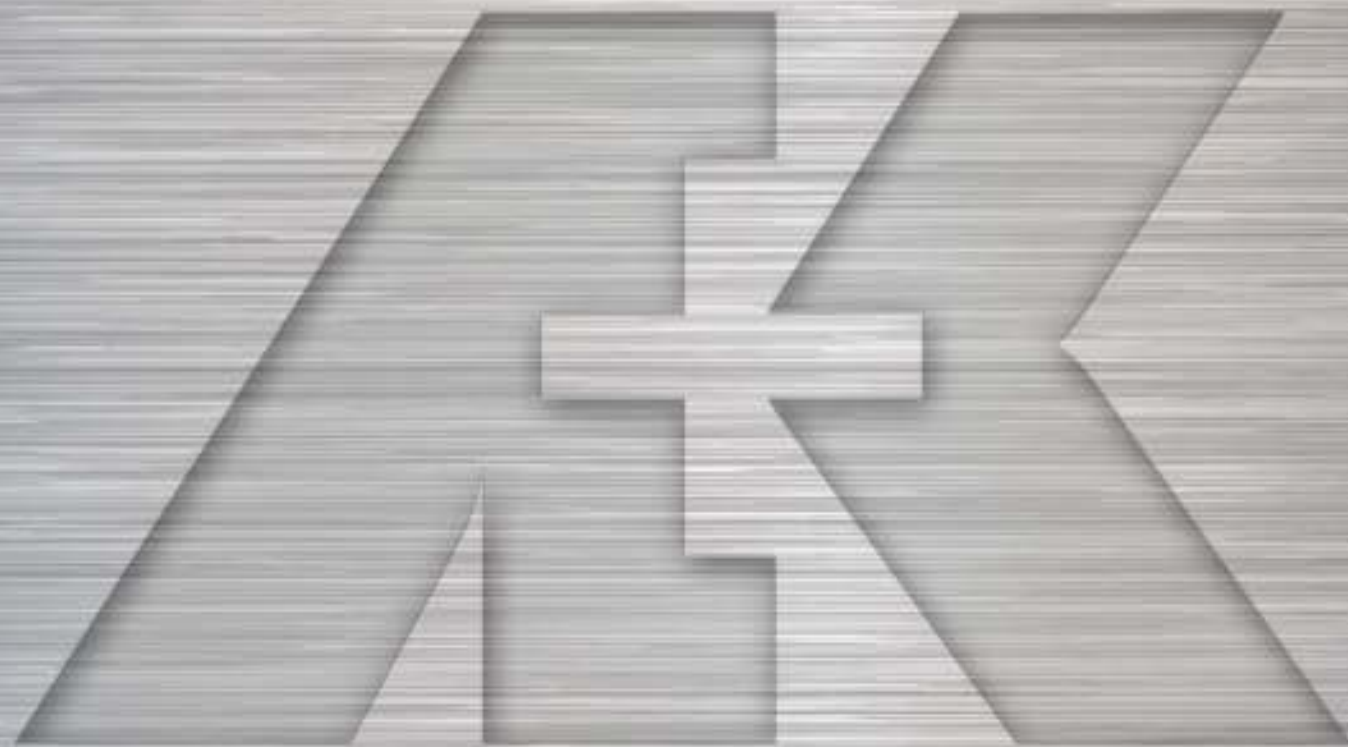
- China continues efforts to keep its electrical market closed having filed trade cases in 2017 against Japan and Korean electrical steel
- That has driven Japan and Korean electrical steel imports to surge into the U.S. where they are now the top two importers of GOES
- Dumped and subsidized GOES imports have significantly increased in the past several years decimating prices, taking market share and ultimately driving the only other producer of electrical steel in the U.S. out of the market in 2016
- The threat is intensifying as there is unused electrical steel capacity in several countries and the unfairly traded imports into the U.S. continue to increase



U.S. Imports of GOES

- Imports of GOES are dramatically increasing
- In 2017, on an annualized basis, GOES imports are on pace to increase 76% from 2016
- As volume of GOES imports surges in 2017, so does share of the market going to foreign GOES
- Current import levels are unsustainable
- Lack of NAFTA electrical steel production would present a significant vulnerability to the electrical grid

U.S. Imports of GOES (Net Tons)				
	2014	2015	2016	2017
Monthly Averages	1,753	2,509	3,116	5,562
Annualized	21,036	30,108	37,392	66,744
Source: U.S. Department of Commerce				



Thank you