

51st JAIF Annual Conference

Energy economics: 3 essential viewpoints

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Shinichi Ichikawa

Credit Suisse Securities (Japan) Limited
Chief Market Strategist

Energy economics 3 essential viewpoints

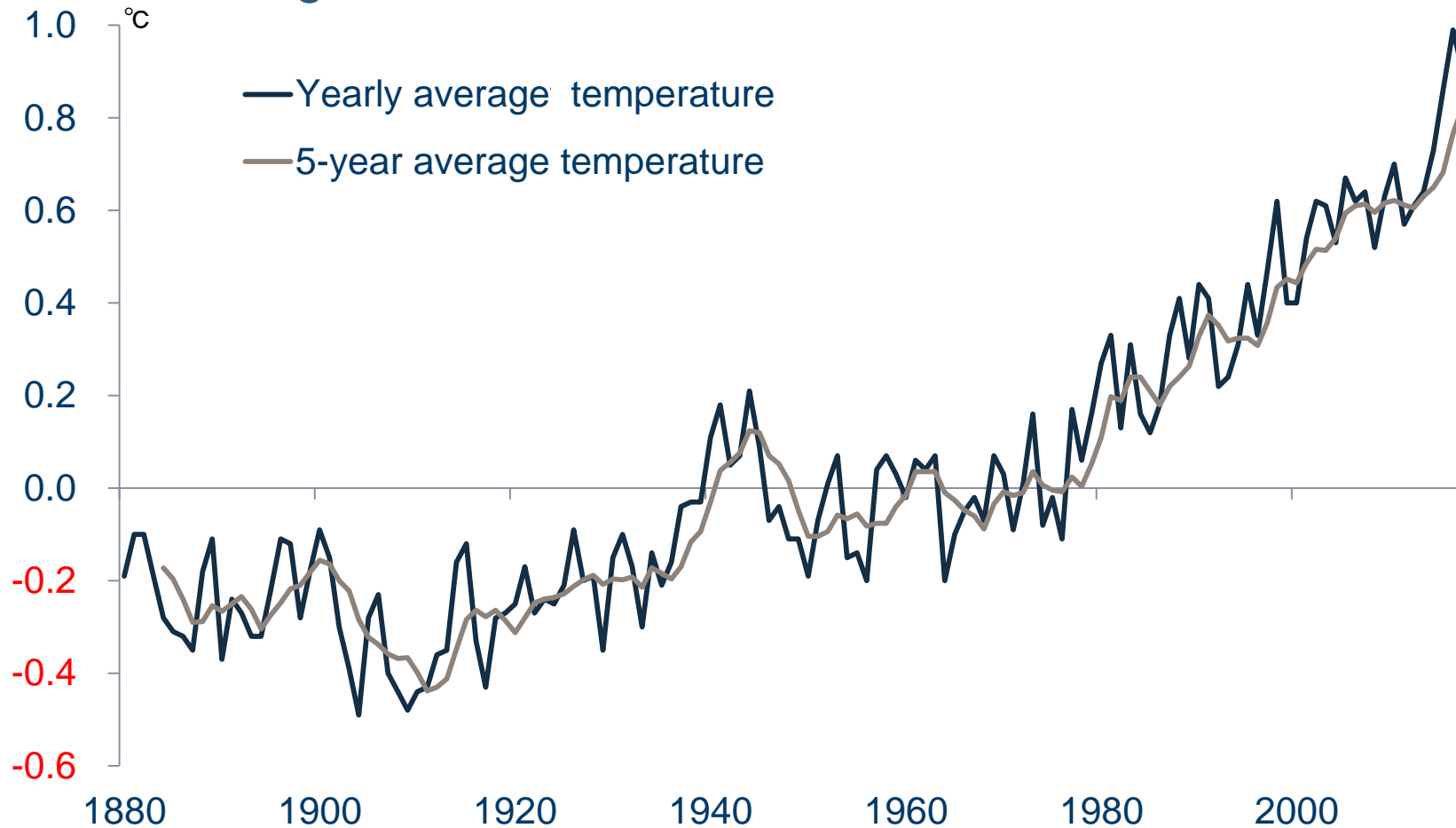
□ Risk of global warming

□ Cost for resource poor nation

□ Regressive tendency of energy cost

Global average temperature (relative to 1951-1980 average temperatures)

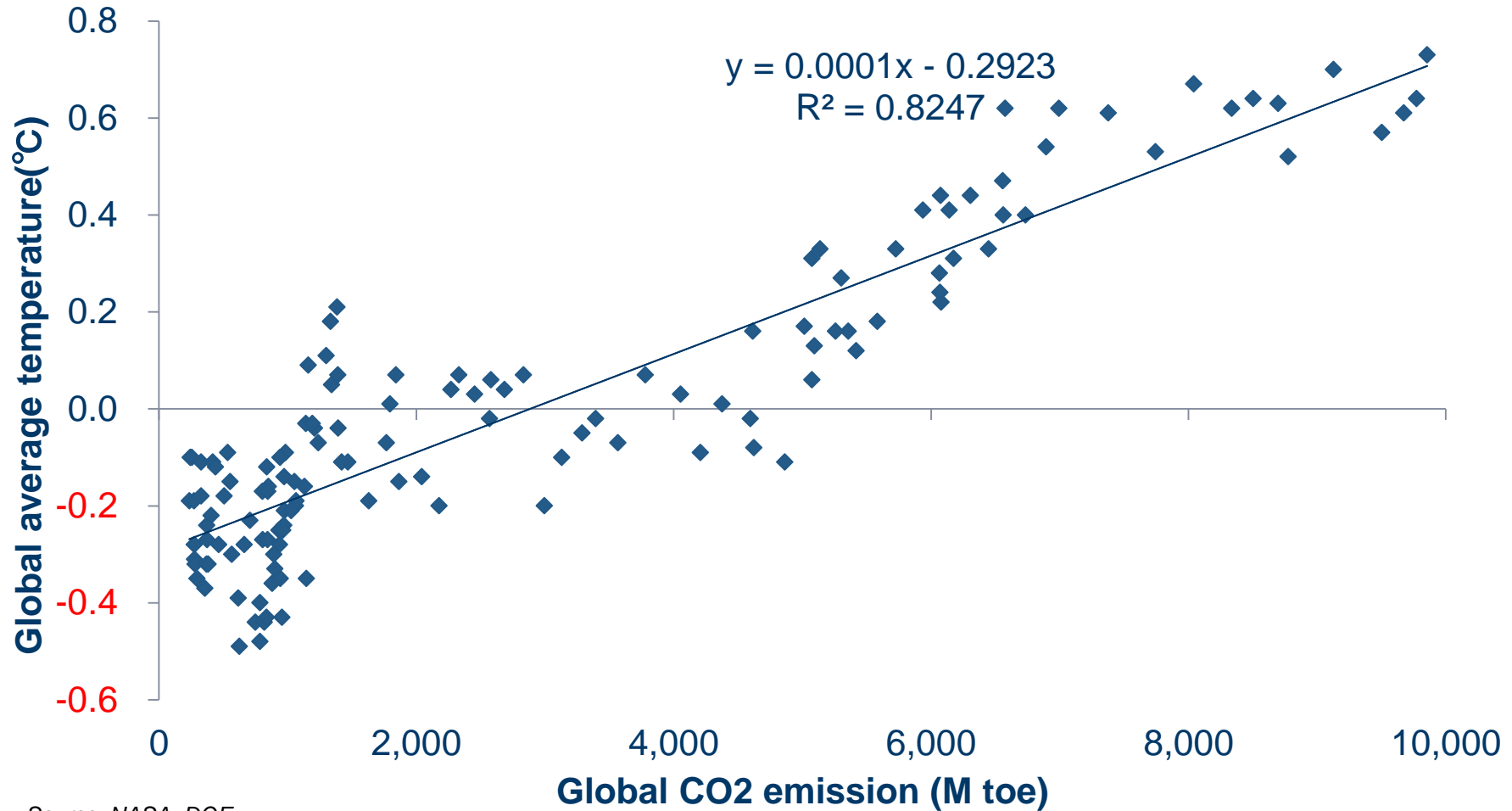
Global warming accelerated after World War II



Source: NASA

CO2 emission and global average temperature

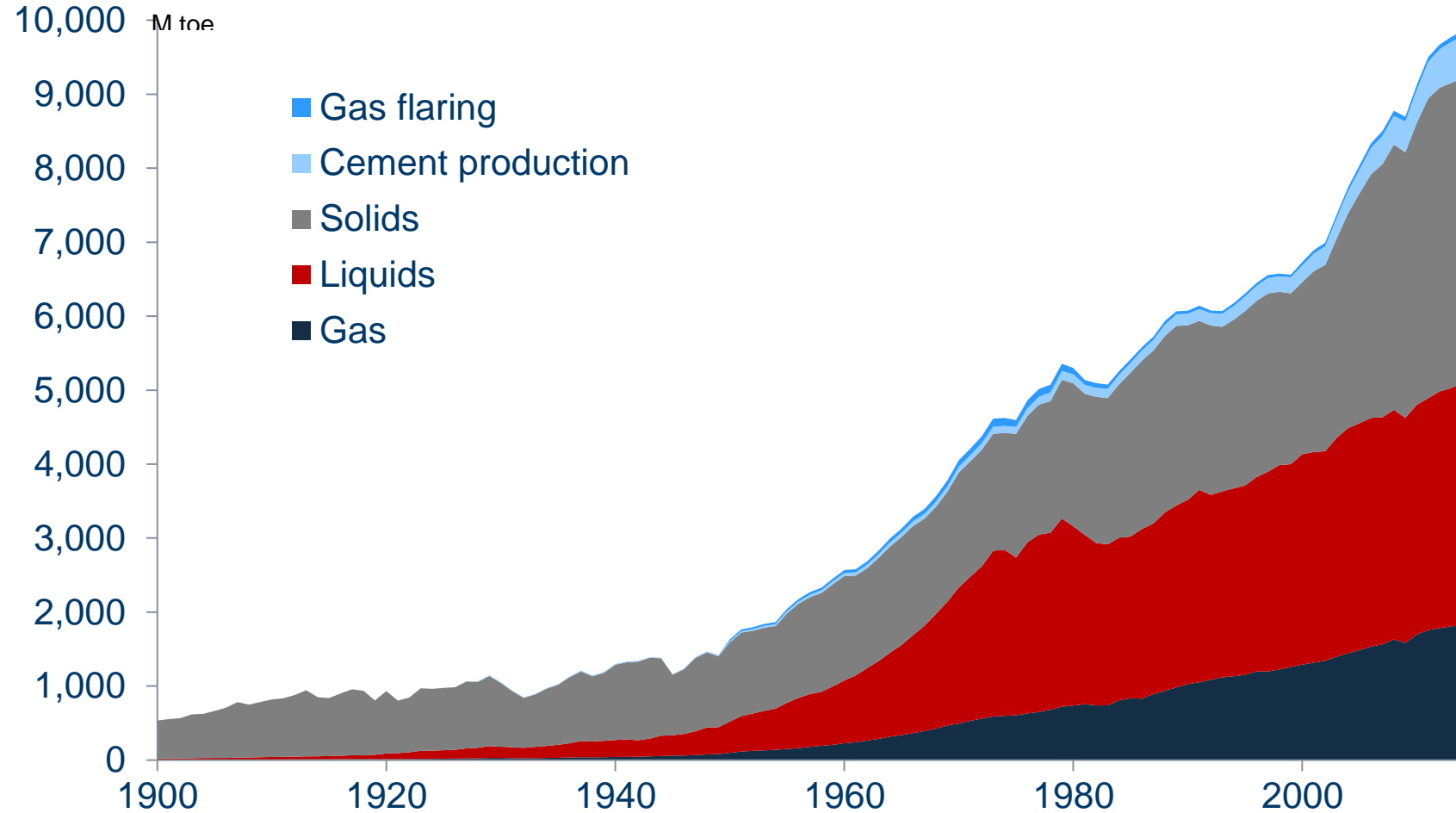
Positive correlation between CO2 emission and temperature



Source: NASA, DOE

Major factors of CO2 emission

Fossil-fuel burning has been major factor of CO2 emission



Source: DOE

Conclusion 1: Risk of global warming

- Reduce fossil-fuel burning as much as and as quick as possible**

Transit route of oil and LNG to East Asia

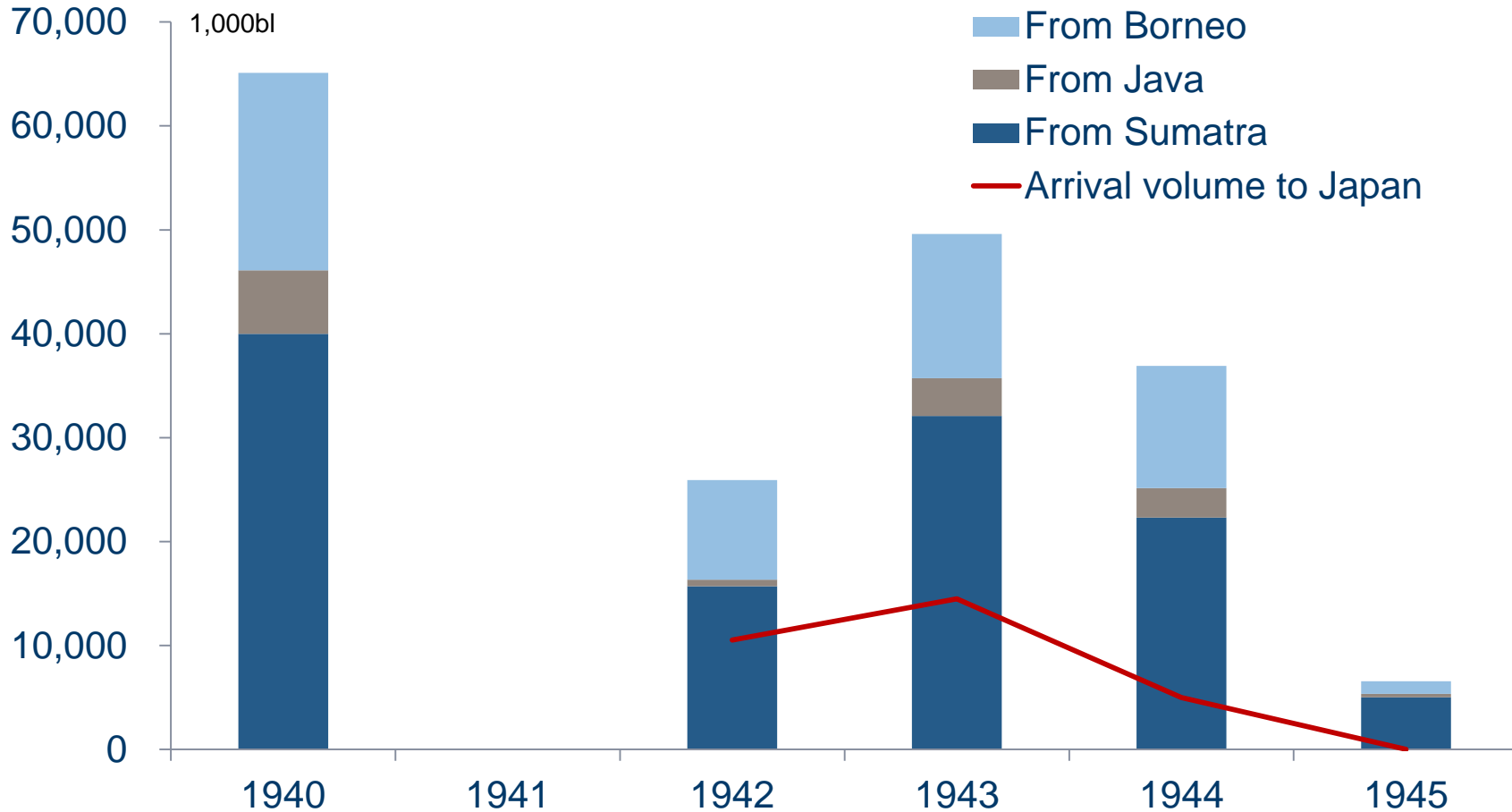
South and East China Sea should be very important sea-lane



Source: US Energy Information Administration

Oil production in Dutch Indochina and transport volume to Japan during WW II

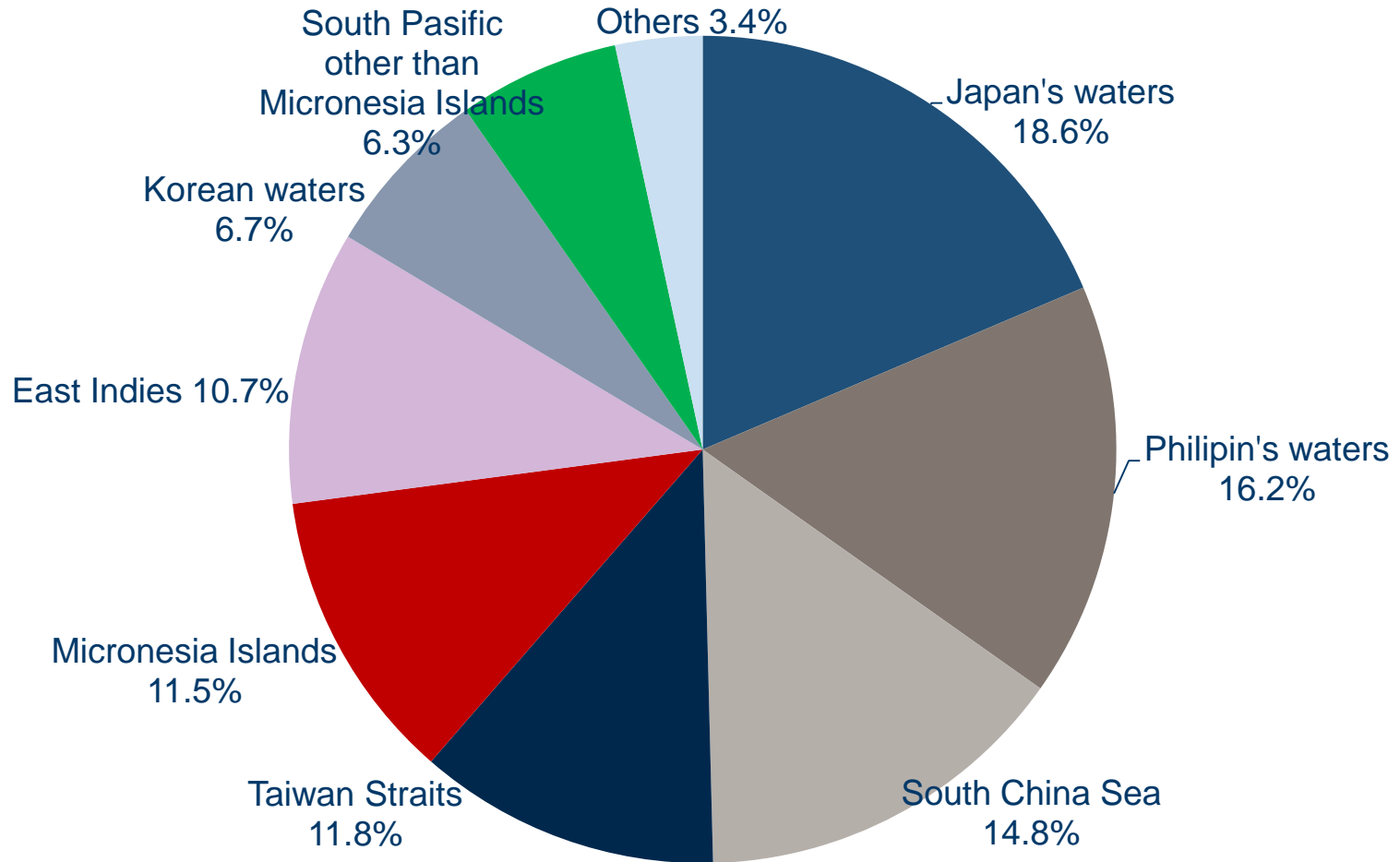
Almost oil produced in Indonesia was lost on the way to Japan



Source: United States Strategic Bombing Survey

Where Japanese merchant ships were lost during WW II

Japanese merchant ships were lost on the current sea-lane



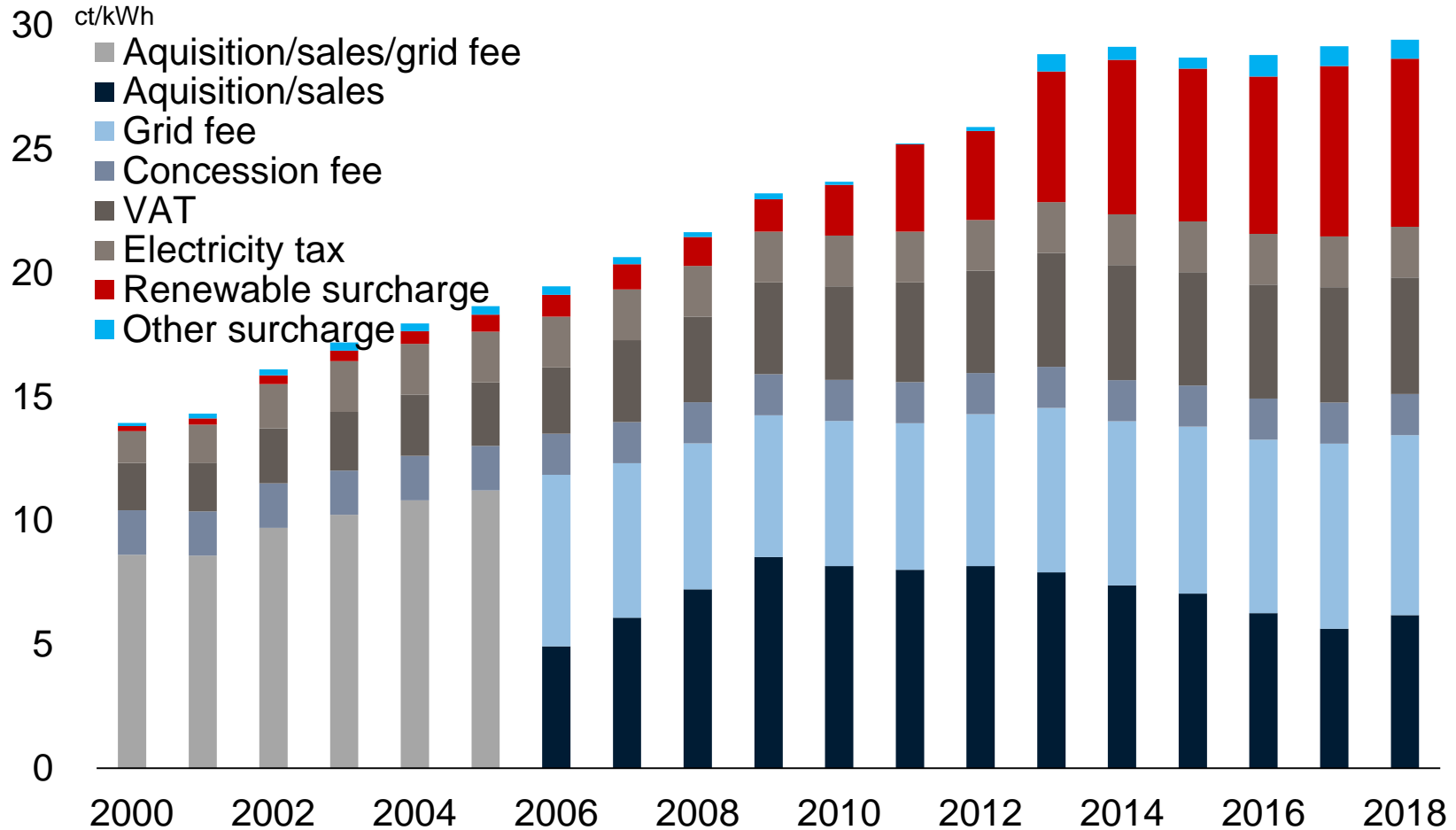
Source: Defense Agency

Conclusion 2: Cost for resource poor nation

- Keep Japan's own resources**
- Diversify supply nations and routes**

Power fee for households in German

EEG surcharge has raised power fee paid by households



Source: BDEW

Conclusion 3: Cost for resource poor nation

- Consider not only industrial competitiveness but also life quality of low income households in regard to “energy best mix”**

Summary: Energy economics

□ Invisible cost

- Cost of global warming
- Cost of national security
- Cost of social stability

□ Risk diversification

- Power sources (fuels)
- Supplier (geographic risk/security on sea-lane)

□ Importance to save stable baseload

- Essential condition to spread EV