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IMPACT OF COVID-19 VIRUS TO PRINCIPLES OF THE ENERGY LAW

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Who am I?



Raphael J Heffron BA, MA, MLitt, MPhil, MSc Barrister-at-Law, PhD
Professor in Global Energy Law & Sustainability & EU Jean Monnet
Professor



Background - Economics, Management and Law (qualified lawyer)
Interdisciplinary energy degrees at Cambridge (MPhil, PhD) and Taxation at Oxford (MSc)



EU Commission Jean Monnet Professor (for teaching & research)
One of most cited energy scholars in my area (by Scopus)



Expert Advisor to UN, EU and WB
Visiting Fellow/Prof – Oxford, Cambridge, MIT, University of Texas (Austin), Queen Mary
London, Paris, West Indies, Mozambique



Where are we?



CEPMLP

43 years old
*“Global voice of
energy law &
policy”*



Energy Law in Transition

Principles of Energy Law

Bridging the gap



Energy Law - Impact beyond borders

Australia – March 2019

Landmark Australian ruling rejects coal mine over global warming

<https://www.nature.com/articles/d41586-019-00545-8>

Gloucester Resources Limited v Minister for Planning [2019] NSWLEC 7

<https://www.caselaw.nsw.gov.au/decision/5c59012ce4b02a5a800be47f>

Preston CJ noted that

[t]he proposed mine has divided the community of Gloucester. Of the submissions on the amended development application, 90% opposed the mine and of the submissions from the Gloucester postcode, **83% opposed the mine**. They are concerned about the noise and dust impacts of the mine, the adverse impacts on the visual amenity and rural and scenic character of the valley, and the social impacts on the community. They are also concerned that **the opening of a new coal mine will contribute to climate change**. The supporters of the mine primarily invoke the economic benefits that a new mine will bring, including local employment and expenditure. (Gloucester Resources Limited v Minister for Planning [2019] NSWLEC 7, para. 6.)



Kenya - Coal

- **First coal plant stopped in June 2019 (Chinese financed)**
 - **\$2billion project**

- **National Environmental Tribunal – outright disregard of public participation**

- **Failed the EIA – did not involve the Public**



Energy Law in Transition

Entering the age of new energy infrastructure:

1. Circa \$15 trillion expected to be spent globally on energy infrastructure by 2040

- Heffron R. J. *et al.* 2017. The Global Future of Energy Law. *International Energy Law Review*, 8, 291-302. (to be translated into Chinese in 2018)
(Available via Westlaw)

1. Energy Law has to govern that spending

2. Energy infrastructure is old



Energy Law in Transition

Principles of Energy Law

Bridging the gap



Energy Law in Transition

Principles of Energy Law

- **The Principle of National Resource Sovereignty**
- **The Principle of Access to Modern Energy Services**
- **The Principle of Energy Justice**
- **The Principle of Prudent, Rational and Sustainable Use of Natural Resources**
- **Principle of the Protection of the Environment, Human Health & Combatting Climate Change**
- **Energy Security and Reliability Principle**
- **Principle of Resilience**

Please download full article from:

<https://academic.oup.com/jwelb/advance-article/doi/10.1093/jwelb/jwx039/4792991>



Paris COP21 Agreement (2015)





Cities around the world feeling the impact





CLIMATE SUMMIT

WHAT IF IT'S
A BIG HOAX AND
WE CREATE A BETTER
WORLD FOR NOTHING?

- ENERGY INDEPENDENCE
- PRESERVE RAINFORESTS
- SUSTAINABILITY
- GREEN JOBS
- LIVABLE CITIES
- RENEWABLES
- CLEAN WATER, AIR
- HEALTHY CHILDREN
- ETC. ETC.



JUST TRANSITION TO LOW-CARBON ECONOMY (JTLCE)



ACID RAIN

A result of air pollution due to burning the fossil fuels & coal



INDUSTRIAL WASTE

Non-Hazardous & Hazardous Waste



MINING WASTE

Tailings, heavy metals, etc.



GLOBAL WARMING

The change in global surface temperature

1960: -0.02°C
2018: 0.82°C
(NASA, 2019)



AIR POLLUTION

4.2 million death/year (worldwide) are attributed to ambient air pollution. 91% of the world population lives in places where air quality exceeds the WHO limits (WHO, 2019)



FOSSILS FUEL WASTE

95% of the world's transportation energy comes from petroleum-based fuels, largely gasoline and diesel (The U.S. Environmental Protection Agency)

THE WORLD IS CHANGING



GOVERNMENT

Energy Policy
Zero - Emission Target



INDUSTRY

Low-Carbon Technology such as
Carbon Capture Storage



PARIS AGREEMENT



Climate, environmental & energy justice
"A fair and equitable process of moving towards a post carbon society" (Heffron, 2018)



RESEARCHER & SCHOLARS

Scientist & Engineers, legal scholar, energy scholar, environmentalist, energy & socio-economist, etc.



SOCIETY

Health and Societal Wellbeing

TRANSITION



HYDRO POWER

Energy that comes from the force of moving water



SOLAR POWER

Energy from the sun that is converted into thermal or electrical energy



ENERGY STORAGE

A device that stores energy is generally called an accumulator or battery

LOW - CARBON ECONOMY

AN ECONOMY BASED ON LOW-CARBON POWER SOURCES



BIO ENERGY

Energy derived from biofuel (fuel produced directly/indirectly from organic material - biomass)



WIND POWER

Energy that comes from the force of the wind



NUCLEAR POWER

Energy comes from splitting atoms in a reactor and generate electricity



How has COVID-19 tested Energy Law?



Learning from other countries

An Energy Transition needs:

- *To be accelerated*
- *To be a **just** transition to a **low-carbon economy***
 - *no one left behind, utilize technology*
- *Law and policy - **revolution***



Future Generations





Learning from other countries

An Energy Transition needs ***to be a just transition to a low-carbon economy***

- ***utilize technology***

- *renewable energy cheaper*

- *challenge full costing of coal (jobs, water, air pollution, efficiency, subsidy, access to the grid)*

- *Technology can ensure justice 'no one left behind'*

- *Utilise technology*

Low carbon economy is about leaving no-one behind and across all sectors





Learning from other countries

An Energy Transition needs a ***Law and policy revolution***

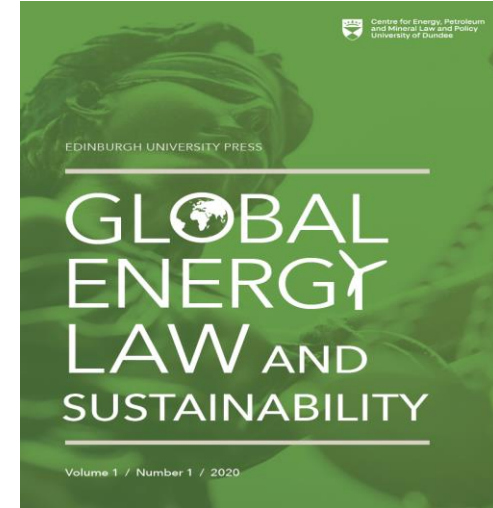
- ***Investors need legal certainty***
 - *Develop energy law principle-based approach to encourage investors*
- ***Provide opportunity for national and international investors***
- ***Utilise different incentivisation tools to increase investment***
 - *For example – Energy auctions (Vietnam – 100 GW by 2030)*



Thank you



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The greater danger for most of us lies not in setting our aim too high and falling short; but in setting our aim too low, and achieving our mark

Michelangelo