

## **ANU Energy News & Events**

November 2020

Dear Paris

It's an exciting time to watch the seismic shifts in the world's energy transition that have gathered pace in recent weeks.

Australia's largest trading partner, <u>China</u>, unexpectedly announced it aimed to reach net zero emissions by 2060. That shock news has been followed by the leaders of <u>Japan and South Korea</u> both announcing they would aim for zero emissions by 2050. While there are few details, it's clear that this signals a clear timetable for Australia's fossil fuel exports, particularly coal and natural gas. Residents in communities which rely on those exports will need assistance to ensure the transition is equitable, and ANU energy and climate researchers will continue to develop policies to address these challenges and opportunities.

Last month in Australia, one major renewable energy project which aims to change the way electricity and hydrogen is produced at scale received <u>Major</u> <u>Project Status</u> from the Australian Government and environmental approval from the West Australian Government. The <u>Asian Renewable Energy Hub</u>, of which the Energy Change Institute is a research partner, has a long-term goal of creating 26GW of renewable electricity and exporting hydrogen and

ammonia. That Hub, together with the Sun Cable project (also given Major Project Status) which will generate 10GW of solar electricity in northern Australia and export it to Singapore via undersea cable, show the scale and pace of the massive developments underway that will change Australia's energy export future.

Lastly, the ANU Below Zero Initiative continues to advance, with team members analysing the many excellent responses we've received from staff and students during the recent consultation phase. It's fair to say we've considerable support for the University's goal of demonstrating leadership on emissions reductions, and we aim to reflect these in the final plan we'll present to the University leadership. Keep an eye on the <u>Below Zero website</u> to track developments.

Regards,

Professor Ken Baldwin Director, Energy Change Institute

### **Online events**



Hydropower and GHG emissions in the Mekong Tues 3 Nov, 9:30am <u>More details</u>



Japan's 2050 Net Zero Target – Is it a Big Deal? Tues 3 Nov, 12pm - 1pm AEDT <u>More details</u>



Compound, Cascading and Lingering Disasters Wed 11 Nov, 12pm - 1:30 pm AEDT <u>More details</u>



David Attenborough: A Life On Our Planet - Screening & Panel discussion Mon 16 Nov, 5:30pm - 8pm AEDT <u>More details</u>



ANU Solar Oration 2020 by Prof Mark Z Jacobson Tues 17 Nov, 12pm - 1:30pm AEDT More details



EPBC Act: Federal environment reform in an age of climate crisis Wed 18 Nov, 6pm AEDT <u>More details</u>



Knowledge to action and action to knowledge: how collaborative processes can address climate change Thur 19 Nov, 4pm - 5:30pm More details



Delivering on the Paris Climate Agreement – looking ahead to Glasgow Mon 23 Nov, 6pm - 7:30pm AEDT More details





### First GPG Australia Hydrogen Economy scholar to study storage options

30 Oct

Master of Energy Change student, Desy Prihardini, has been awarded the first Global Power Generation Australia (GPGA) Scholarship in the Hydrogen Economy and will use the

\$20,000 to study hydrogen storage in liquid organic carriers. <u>Read more</u>



### Green hydrogen at A\$2/kg plausible over the next decade: ANU paper

Featuring four ANU researchers, 27 Oct The rapidly falling cost of renewable energy generation means that it is plausible that "green hydrogen" produced through electrolysis could approach the Australian Government's 'stretch goal' of H2 at A\$2/kg over the next decade, a new paper by ANU researchers has found. <u>Read more</u>



### Net-zero emissions drive puts Australian industry on notice

Opinion by Assoc Prof Llewelyn Hughes, The Age, 29 October

The pressure on Australia is indisputable. n a Tuesday night call, British Prime Minister Boris Johnson reportedly called on Scott Morrison to "act boldly" on climate change and stressed the need for ambitious targets to reach net-zero carbon emissions. <u>Read more</u>



### New polling shows 79% of Aussies care about climate change. So why doesn't the government listen?

By Dr Rebecca Colvin, The Conversation, 28 Oct We will remember 2020 as a year of crisis. COVID-19 hit Australia just as we were beginning

to make sense of the horror bushfires and smoke of last summer, a sinister illustration of global warming's threats. <u>Read more</u>



### Towards emissions certification systems for international trade in hydrogen: The policy challenge of defining boundaries for emissions accounting

By eight ANU researchers, Energy, Vol 215 Part A

Hydrogen as a fuel is clean burning, but production can cause substantial greenhouse emissions. Some buyers will prefer to pay a higher price to ensure purchase of lowembedded emissions hydrogen, but it is impossible to determine embedded emissions by examining the end product. <u>Read more</u>



### Is community renewable energy always just? Examining energy injustices and inequalities in rural Indonesia

By Hilman Fathoni, Dr Abidah Setyowati and Dr James Prest, Energy Research and Social Science Vol 71

Community-based renewable electricity projects have been increasingly regarded as a promising means to alleviate rural energy poverty through ensuring just and inclusive outcomes. Read more



### Financial case for Snowy Hydro 2.0 just doesn't hold water

Opinion by Prof John Hewson, The Sydney Morning Herald, 22 October Beware of the Snowy 2.0 hubris. The project simply doesn't stack up. Indeed, it threatens to be a mini NBN, with significant commitment of taxpayers' money to what is being oversold as a visionary, nation-building, game-changing project. Read more



# Research to power up Australian solar cells

ANU Media release, 6 Oct ANU researchers will help develop cheaper and more efficient solar cells, as well entirely new types, thanks to more than \$3.2 million in Australian Government funding. <u>Read more</u>

## **Professional short courses**



### Climate Essentials for Professionals 23 - 25 Nov This short course has been designed for professionals who want to gain an overview of the latest developments around climate change. It will cover both the science of climate change and policy responses across a range of sectors.

Learn more

## **Event recordings**



### Digging deeper into the Technology Investment Road Map and Low Emissions Statement 2020

Join Australia's Chief Scientist, Dr Alan Finkel AO, and an expert panel who examined the Australian Government's roadmap and statement which outline various technologies aimed at reducing Australia's greenhouse gas emissions. <u>Watch here</u>



Preparing for flooding and cyclones in the time of COVID-19 In this event, we heard from climate scientists and emergency services practitioners about the prospects of a La Niña season with increased flood risk, along with the practical difficulties COVID-19 imposes on emergency service, other agencies, and communities. <u>Watch here</u>

## Videos and podcasts



Ammonia Energy: Hydrogen's Dark Horse? Pen Howarth, a member of the ANU Grand Challenge: Zero-Carbon Energy for the Asia-Pacific, chaired a discussion on ammonia at the 2020 All Energy Australia Exhibition and Conference. Watch here



Clear and present failure: Climate policy in Australia

On this Policy Forum Pod, top climate researcher Mark Howden, social scientist Bec Colvin, and science writer Ketan Joshi examine the past and present struggles of Australia's climate policies, and how policymakers can put the country on the right track. Listen here

### Other news

Beyond technical fixes, Inside Indonesia, by Dr Abidah Setyowati, 26 Oct Australia should create 'Pacific visa' to reduce impact of climate change and disaster on islanders, The Guardian, featuring Prof John Blaxland, 22 Oct Queensland teenagers lodge legal action against Adani coal mind to save Great Barrier Reef, ABC News, featuring Assoc Prof Paul Burke, 22 Oct Thinning forests doesn't reduce bushfire risk and could make some blazes worse, study finds, featuring Dr Chris Taylor, The Guardian, 8 Oct Japan, Australia's biggest coal and gas customer, to adopt 2050 zero emissions target, Renew Economy, featuring Assoc Prof Llewelyn Hughes, 22 Oct

<u>Climate change risks estimated higher today than 20 years ago</u>, VUB Today, featuring research coauthored by Prof Mark Howden, 9 Oct

<u>A push to penalise countries dragging the chain on carbon emissions could be bad news for Australia,</u> SBS News, featuring Prof Mark Howden, 10 Oct

<u>The 2020 Budget has been touted for young Australians, but students say one crucial thing is missing</u>, SBS News, featuring Prof Mark Howden, 10 Oct

Vanuatu art exhibition showcases resilience in the face of climate change, ANU College of Arts and Social Sciences, featuring Dr Siobhan McDonnell, 30 Sept

<u>Dramatic loss of corals drown out even worse worries for Great Barrier Reef</u>, The Sydney Morning Herald, featuring Prof David Lindenmayer, 16 Oct

<u>GEV to develop compressed hydrogen ship for Australia's green hydrogen exports</u>, PV Magazine, featuring Prof Andrew Blakers, 16 Oct

<u>Behind the Wall – China's carbon neutral pledge</u>, ABC-TV, featuring Prof Frank Jotzo, 15 Oct <u>Bushfires, logging threaten greater glider numbers</u>, Yass Tribune, featuring Prof David Lindenmayer, 11 Oct

ANU-based Adele Morrison receives \$25,000 L'Oreal UNESCO For Women in Science grant for <u>climate change research</u>, The Canberra Times, featuring Dr Adele Morrison, 12 Oct <u>Budget 2020: Keeping Australia at the forefront of weather and climate modelling</u>, ZDNet, featuring

Prof Andy Hogg, 8 Oct

2000% renewables, EcoGeneration, featuring Prof Ken Baldwin, 8 Oct

<u>Changing the narrative of climate change</u>, The Interpreter, authored by Dr Rebecca Colvin, 14 Oct <u>La Nina declared: Unexpected effect of climate driver</u>, news.com, featuring Dr Joelle Gergis, 30 Sept <u>Early warning: human detectors, drones and the race to control Australia's extreme bushfires</u>, The Guardian, featuring research by The Australian National University, 25 Oct

<u>Humans were adapting to sea-level change 40,000 years ago: study</u>, ANU College of Asia and the Pacific, featuring Dr Shimona Kealy and Prof Sue O'Connor, 2 Oct

<u>Climate change, pandemics and 'fascist extremism' are among Australia's biggest security risks</u>, says Home Affairs chief, SBS News, 14 Oct, based upon a speech presented at The Australian National University

<u>'New jobs, new industries, new wealth': Kevin Rudd's vision for a green recovery out of the pandemic,</u> The Guardian, based upon an event by the ANU Sir Roland Wilson Foundation, 20 Oct

### Other initiatives and events

Call for survey participants - ANU study tracks impact of COVID-19 and bushfires on new mums and babies



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