

00:15:51 Alia: Welcome all - Alia from the Australia Institute here! Thanks for joining us today.

00:16:03 Alia: A little reminder, the chat has options for 'all panellists' or 'all panellists and attendees'. Choose the latter option to participate in the chat with everyone.

00:16:14 Alia: Please keep all comments in the chat civil and on topic or you will be removed from the discussion. Looking forward to a great webinar!

00:16:28 Miriam Lyons: Hi all, Miriam here from the Sunrise Project, on Gadigal land

00:18:14 Tony Judge: Greetings from Gumbayngirr land, which is much colder than usual!

00:18:29 Alia: Learn about our panelists > <https://www.newenergyxexus.com/about/>
<https://www.saulgriffith.com/>

00:18:57 Alia: Use the Q&A function to submit questions for the panel to answer, you can also upvote other's questions you'd like answered.

00:19:41 Alia: A little reminder, the chat has options for 'all panellists' or 'all panellists and attendees'. Choose the latter option to participate in the chat with everyone.

00:20:27 Jayne Crowley: But how is the electricity generated to electrify everything? Does fossil fuel still get used?

00:21:10 Michael Gunter: sun wind and 400GWh of #PHES???

00:21:21 Cate Cooper: Renewable, clean energy Jayne

00:21:55 Linda Tullberg: Angus Taylor again last night tagging EV buyers as "luxury consumers". Sigh.

00:22:00 Prof David A Hood AM: Hi David from Meeanjin country. This is great. BZE has been calling for this for years!

00:23:14 Cate Cooper: Jayne and Michael, check out this link!
<https://below2c.org/2021/05/solar-and-wind-power-the-skys-the-limit/?fbclid=IwAR3lcCskOhpgXOwj2f4KOMqzak4QSvQb8s25I42GgtK5vcelQmzwcTaaLIA>

00:25:50 Wendy Baker: A book worth reading: "How to avoid a climate catastrophe" by Bill Gates. - Wendy Baker

00:26:52 Cate Cooper: But will Scomo listen??

00:27:43 Jayne Crowley: Scomo loves listening to himself and not really anyone else.

00:27:55 Wendy Baker: The immensity of the task ahead is terrifying!

00:27:57 Miriam Lyons: The Gates' book has some good points but also some flaws - see <https://www.nytimes.com/2021/02/15/books/review/bill-gates-how-to-avoid-a-climate-disaster.html>

00:28:02 Alia: Use the Q&A function to submit questions for the panel to answer, you can also upvote other's questions you'd like answered.

00:28:07 Alia: Please keep all comments in the chat civil and on topic or you will be removed from the discussion. Looking forward to a great webinar!

00:28:45 K.C. Boey: Thanks Alia.
One more time then :) Greetings from Wurundjeri country

00:29:06 Kathryn Maxwell: We need to put more pressure on the state governments to do more until we get a change of government Federally. We have such exciting opportunities and we need to overcome the culture of fearing change as this is good change - economic, social and environmental. Kathryn

00:29:24 Rebecca Sweeney: Disingenuous govt - yes. 🙄 Aust TAFE has been gutted by fed gov't so how are sparkies and related tradies getting direction in renewables or for new energy

efficient appliance innovation. e.g. Vestfrost fridge that has thick insulation and very low power draw. ovens and stoves more difficult

00:31:31 Cate Cooper: Put that in the Q&A Rebecca1

00:33:38 Robert Calvert: It is no longer an ethical, moral or philosophical question. These guys can put a rational economic argument that trumps the misinformation. The federal government is finally buckling, the trouble is we've lost 20 years because of these troglodytes

00:34:10 Cate Cooper: +++ Robert

00:34:51 Cate Cooper: What's the capital investment to produce that saving Saul?

00:34:59 Alia: Learn about electric vehicles and policy in Norway & Aus >

<https://australiainstitute.org.au/report/ending-the-ice-age/>

00:35:06 Miriam Lyons: To decarbonise global energy use we need to 1. replace fossil fuels with renewables for power generation 2. electrify everything 3. improve energy efficiency, and 4. use renewable electricity to make renewable fuels for the processes that can't easily be electrified. First 3 will be fast, cheap or cost-negative, and create loads of jobs. 4th also necessary & will create loads of jobs & export opportunities for Australia.

00:35:30 Cate Cooper: Totally agree Miriam

00:36:08 Philip Craig: for the conversation you need leadership .. and vacuous Canberra is wanting in that dept.

00:36:15 Stephen Masters: Excellent Miriam you are exactly right.

00:36:31 Cate Cooper: Has that ever happened in the last decade of Australian politics??

00:36:51 Linda Tullberg: Excellent point. Both greenies and politicians have focussed too much on short term costs rather than the upside for workers and households.

00:37:00 Sam Shaw: To the panelists: what are your thoughts on 'renewable gas'??

Thanks!

00:37:04 Dan Cass: China is planning for 1200 GW of solar and wind by 2030. The total project pipeline of solar and wind in Australia is about 57 GW.

00:38:02 Alia: Will a 'gas-led recovery' reduce gas prices? No >

<https://australiainstitute.org.au/report/wrong-way-go-back/>

00:38:06 Steve Blume: The "dragging" of politicians is a priority. Steve Blume Smart Energy Council

00:38:21 Amelia Caldwell: Where do we find this chart?

00:38:22 Wendy Cox: can we get a link to Saul's graph ?

00:38:30 Linda Tullberg: Link to that chart if possible please.

00:39:16 Alia: We'll see if we can organise it! A reminder that this is being recorded and the video will be made available after the webinar is finished.

00:40:39 Amelia Caldwell: Google super sankey

00:40:46 Wendy Cox: Aila do a post in LinkedIn with the chart in it.

00:41:12 Cate Cooper: That profit is eaten up by insurance claims on climate catastrophes!

00:41:14 Craig Peters: Unbelievable.

How do we get that to cut through to the masses and the polities?

00:41:27 Miriam Lyons: Ooh I want the reference for that stat please - oil import \$\$ vs which FF export?

00:41:51 Dan Cass: That is my favourite economic mind bomb in Saul's work; Australia blows more \$\$ buying transport carbon than we make from exporting electricity carbon. Stupid much?

00:41:59 Alia: Saul Griffith Super Sankey > <http://energyliteracy.com/>

00:42:02 Cate Cooper: Our politicians are way too focused on fear

00:42:08 Gillian Morrison: This is brilliant! So much work. Thank you!!

00:42:12 Avis Williamson: Saul those charts are brilliant. Can they be shared please.

00:42:29 Miriam Lyons: Exactly - electrification is inherently more efficient

00:42:30 Anne Marshall: This is a fabulously interesting/important webinar!

00:42:32 Alia: Interactive on fossil fuel exports > <https://ember-climate.org/ember-shipping-dashboard/>

00:42:47 Linda Tullberg: Richie, please collect some of these great data points and publish a cheat sheet for everyone to you at dinner parties.

00:43:35 Linda Tullberg: I mean to "use at dinner parties". And on social media memes.

00:43:40 Dan Cass: Physicists first revealed that America wastes half its energy only in 1976, so no surprise it hasn't caught on in Australia! Seriously - google Amory Lovins Energy Strategy: The Road Not Taken?

00:43:40 Michael Gunter: "burning shit to boil water" so let's declare and end to the #SteamAge which IMO includes nuclear. a hell of a way to boil water.

00:43:51 Tony Bannister: What a great webinar!

00:44:20 Kaye Paton: EXCELLENT Linda

00:44:22 Craig Peters: Make Saul's last comments the headline of EVERY tabloid in the country and every news show.

00:44:23 Philip Craig: The green steel and green aluminium export market will be STUNNING

00:44:45 Peter Horan: We must invest in Australia. How can we make that happen?

00:44:46 Miriam Lyons: Exactly - electrification + renewable fuels = massive opportunity for zero-emissions, energy-intensive exports.

00:44:55 Cate Cooper: Awesome points Danny!

00:45:22 Cate Cooper: MAGA - Make Australia Great Again!

00:45:59 Peter Gunn: It's kind of a pity that the renewables discussion has been attributed to the "hippies" & "greenies". This gives the denialists a good target to sneer at. In fact the hard science dates back to the late 19th century, and was being discussed even earlier than that - I've seen relevant articles from 1866 & 1868!

00:46:08 Alia: Quantifying emissions in our exports > <https://australiainstitute.org.au/report/high-carbon-from-a-land-down-under-quantifying-co2-from-australias-fossil-fuel-mining-and-exports/>

00:46:19 Miriam Lyons: Agree on hydrogen exports - renewable ammonia to replace bunker fuel in shipping has more promise though

00:46:31 Lisa McDonald: the US senate just approved \$US250 billion to enhance their technology and manufacturing sectors - just imagine if Australia got serious about growing our R&D and manufacturing sectors

00:47:24 Andrew Holliday: Do we have any LNP politicians smart enough to be C grade physics students?

00:47:32 Cate Cooper: Hahaha

00:48:02 John Millar: Better Call Saul for a new energy policy in Oz

00:48:14 Avis Williamson: Time to question all election candidates on the energy literacy I think and refuse to vote for those with clean energy illiteracy!

00:48:28 Sylvia Morgan: From Sylvia morganThanks guys...these facts are soo important. Please enable us to get a copy of the redording so we can pass it on.

00:49:20 Philip Craig: fana

00:49:40 Cate Cooper: When will this Ute be available in Australia??

00:49:50 Lisa McDonald: Check out OVO's (in the UK) EV charging plans. They use AI to charge the vehicles when there is excess energy from renewables in their system. a very smart way to balance the grid as opposed to stopping generation

00:49:53 John Millar: Sylvia, you will find this on Australia Institute TV

00:49:54 Noni Keys: I agree with not falling into labelling 'the hippies and greenies' - it's a distraction from the main game. Look at what Andrew Bolt did to Andy Pitman over misspoken comments about climate change and bushfires.

00:50:19 Alia: Hi Sylvia. The webinar recording will be posted on our YouTube channel:
https://www.youtube.com/playlist?list=PLgXQ0oSpA60z4BO-_qhN1iropemoS-Rtk

00:51:52 Peter Horan: We should pay Coal fired power stations to shut down and be replaced by renewable energy systems.

00:52:48 Cate Cooper: Wow!

00:53:28 Michele Grubnic: I will be watching the recording of this webinar over and over so I can absorb all this brilliant information!

00:53:36 Cate Cooper: +++

00:53:52 Lisa McDonald: its totally about using smart tech to balance demand with supply

00:54:32 Darryl Fallow: Agree Lisa - we need a 'smart' grid. Demand management has a role to play.

00:55:14 peter wonfor: Adding one more aspect to Lisa's great note...

00:56:11 Alia: Use the Q&A function to submit questions for the panel to answer, you can also upvote other's questions you'd like answered.

00:56:18 Andrew Holliday: Is Albo watching??

00:56:49 Rob Heselev: Please send the link to this recording to Albo...

00:56:50 Cate Cooper: I'm going to be sending this webinar recording to my local MP

00:57:22 Monique Monnier: That's my plan as well to send it my MP

00:57:48 Michael Gunter: +1 Cate Cooper

00:57:49 Amelia Caldwell: Para 293 of the FCA Vickery Coal Mine case - everyone should read it

00:58:23 Cate Cooper: Our populace is not demanding enough!

00:58:35 peter wonfor: Oops - sorry! Adding one item only inferred in Lisa's excellent note.... distributed generation to place source close to load demand.

00:58:40 Gillian Morrison: We need to get Saul and Danny attached to a PR company and get this message out. It's brilliant!

00:58:42 Alia: Please keep all comments in the chat civil and on topic or you will be removed from the discussion.

00:59:27 ALAN PEARS: We have entered the Post-Promethean world... Groups like Aust Alliance for Energy Productivity, Energy Efficiency Council BZE etc are driving this - and energy efficiency is 'the first fuel' to complement renewables.

00:59:37 Stephen Masters: Best ever AI webinar!

00:59:51 Cate Cooper: +++

01:00:03 Peter Horan: Wish it were 6700 not 670 viewers!

01:00:10 Cate Cooper: +++

01:01:13 Lindsay Soutar: Opportunistic plug! ;) Please all sign the Solar Citizens petition opposing the solar export fees Danny and Richie are talking about:
https://www.solarcitizens.org.au/stop_the_sun_tax

01:01:16 Hilary McPhee: Very best webinar. The mothers and others must act to get us there for next election

01:01:37 Rachel O'Leary: If all 670 of us can get our extended families to watch this web cast lets push this conversation out further!

01:01:46 ALAN PEARS: Also check out Boston Metals for steel from electricity - modular, and can be used for other metals too

01:03:10 Peter Horan: Australia should invest in high speed rail to compete with the aviation industry.

01:03:37 Jonathan McClelland: Aviation and also electrification of maritime.

01:03:55 Miriam Lyons: Agree with Danny! China cutting steel emissions by 2030 has big implications for Australian iron ore exports

01:04:03 Megs Alston: As Danny says, creating a movement by all coalitions joining together can make the political difference for our next election

01:04:39 Miriam Lyons: *cutting steel emissions by 30% by 2030 -
https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/china-ramps-up-efforts-to-cut-carbon-emissions-from-steel-aluminum-industries-63471514?utm_campaign=corporatepro&utm_medium=dailyupdate&utm_source=Apr5#:~:text=The%20Chinese%20steel%20industry%20is,Industry%20Planning%20and%20Research%20Institute.

01:05:08 Michael Gunter: recycling steel! yes so what should the carbon price be right now on recycled steel that avoids the reduction of hematite by coking coal?

01:05:57 Fiona Tito Wheatland: CAN WE GET A COPY OF THE CHAT, AS IT INCLUDES HEAPS OF REFERENCES AND ITS HARD TO KEEP UP WRITING ITHEM DOWN.

01:06:34 Alia: Fiona, unfortunately we can't provide a copy of the chat. Apologies - you can find the recording of the webinar on our website.

01:06:44 Monique Monnier: Fiona, just click on the links and add them in Bookmark

01:07:07 Cate Cooper: Fiona, right click on the chat area and select all, copy and paste into a word doc :)

01:07:43 Michael Gunter: Cate that works per question AFAIK

01:07:57 ian Garradd: Wow, such a great idea to utilise the thermal mass of the aluminium for thermal/ electricity generation!

01:08:22 Jonathan McClelland: Networks are primarily fixed costs so greater throughput should theoretically reduce cost per kWh of energy delivered.

01:09:07 Kimberley Wheeler: For renters - Powershop is an electricity supplier where you can choose your supply allocation to come from renewables.

01:09:39 Lisa McDonald: its not just kwhs - its capacity KVA. The worse thing is if all these kwhs are used at the same time

01:10:01 Jonathan McClelland: Agreed. Need smart charging and responsive EV demand.

01:10:07 Mark Simpson: Ebony, can we keep this positive conversation going for another hour? I'm feeling up.

01:10:07 Michael Gunter: Powershop uses UNCERs which are dubious internationally traded offsets IMO.

01:10:25 Miriam Lyons: Solar gardens is an open for ensuring renters get benefits

01:10:57 Miriam Lyons: <https://www.smh.com.au/money/saving/solar-garden-schemes-to-make-renewables-available-to-apartments-20210503-p57oh3.html>

01:11:11 Linda Tullberg: Community solar and community batteries?

01:12:06 Alia: Research on solar on rentals in South Australia >
<https://australiainstitute.org.au/report/something-new-under-the-sun/>

01:12:20 Jenny Goldie: This webinar should be mandatory viewing for all policymakers and all political candidates.

01:12:29 Cate Cooper: +++

01:12:34 Lisa McDonald: absolutely agree with Saul - energy management (batteries, EVS, demand response) is the key to making all this work

01:12:38 John Smith: ++++++

01:12:51 Miriam Lyons: <https://www.epw.qld.gov.au/about/initiatives/solar-rentals-trial>

01:13:09 Avis Williamson: Thanks TAI. A very illuminating webinar no pun intended
01:13:11 John Smith: Brilliant seminar! Thanks!
01:13:12 Megs Alston: Wonderful webinar thank you TAI and panellists for so much fantastic information and ideas. Inspiring.
01:13:16 Peter Horan: We need more than ingenuity. We need Australia to invest in Australia.
01:13:19 Alia: Thanks to all for joining us today and for participating in a fascinating discussion! For details about upcoming webinars and to book head to <https://australiainstitute.org.au/events/>
01:13:28 Alia: At the bottom of the page you can view our previous webinars in full if you missed any – including this one when it is uploaded soon.
01:13:35 Darryl Fallow: @Jenny Goldie Good point - we should make candidates aware.
01:13:36 Graeme McLeay: Graeme McLeay to panellists and attendees Brilliant discussion thank you.
01:13:41 Kimberley Wheeler: Thanks to all.
01:13:57 Hayden: To help us get the word out, please share this webinar when it gets uploaded to youtube later today! You'll see it in your emails, or visit australiainstitute.tv to see it first
01:14:08 Cate Cooper: Who would you recommend we vote for Saul?
01:14:19 Lisa McDonald: great panel
01:14:21 Monique Monnier: Fantastic webinar. Thank you all
01:14:23 Jonathan McClelland: Great event. High quality discussion.
01:14:24 Chris Derksema: best panel ever!
01:14:28 Alia: Thanks to all for joining us today and for participating in a fascinating discussion! For details about upcoming webinars and to book head to <https://australiainstitute.org.au/events/>

At the bottom of the page you can view our previous webinars in full if you missed any – including this one when it is uploaded soon.

01:14:29 Jim Minifie: thanks - awesome session
01:14:31 Fern Cadman: Great webinar. Thanks all.
01:14:35 Angela Davies: Thanks so much!
01:14:36 David Meiklejohn: Thanks Danny, Saul and AI.
01:14:36 Gillian Morrison: Clap clap clap clap! Thank you. Some hope!!
01:14:39 Cristian Schell: Thank you!
01:14:39 Miriam Lyons: Thanks TAI & panellists - very inspiring
01:14:43 Cate Cooper: Thanks you so much TAI, Saul and Danny!
01:14:47 Darryl Fallow: Good webinar - Thanks TAI + Panalists
01:14:50 Tony Bannister: Awesome!
01:14:55 Lisa McDonald: AI - keep up the great work
01:15:00 cathy hall: Thanks for great panel webinar and Q& A
01:15:02 Jim Allen: Thanks for another excellent Webinar!
01:15:10 Mark Cummings: fantastic, thanks Guys
01:15:26 Hayden: Thanks so much everyone for joining us!
01:15:30 Giselle Wagner: Great Webinar thank you.
01:15:31 James Whelan: Thanks TAI, Danny and Saul. Fantastic
01:15:35 Jonathan McClelland: Bravo Ebony. Nice job.
01:15:37 Melissa Arnold: Thank you,