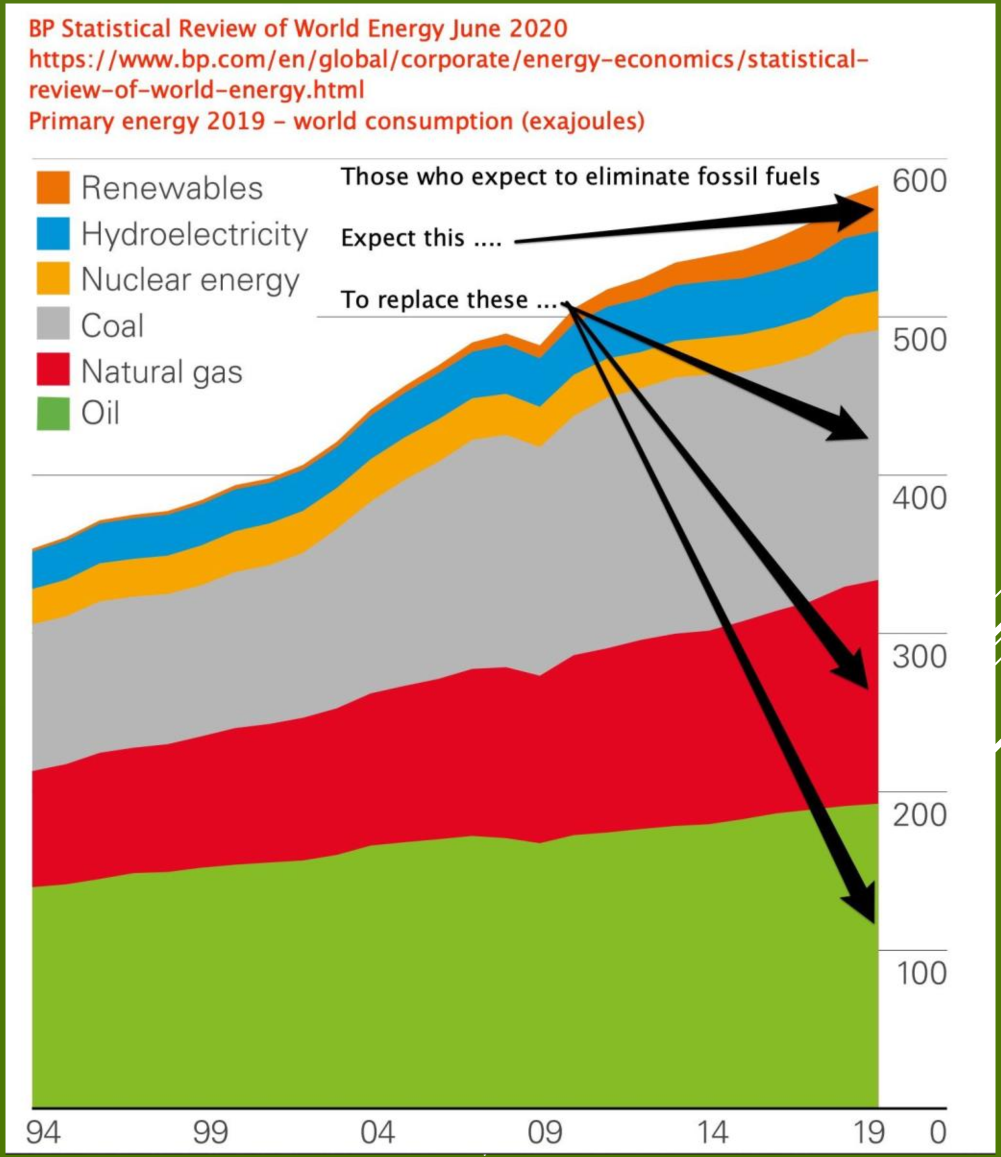
THE BARRIERS TO NETZERO

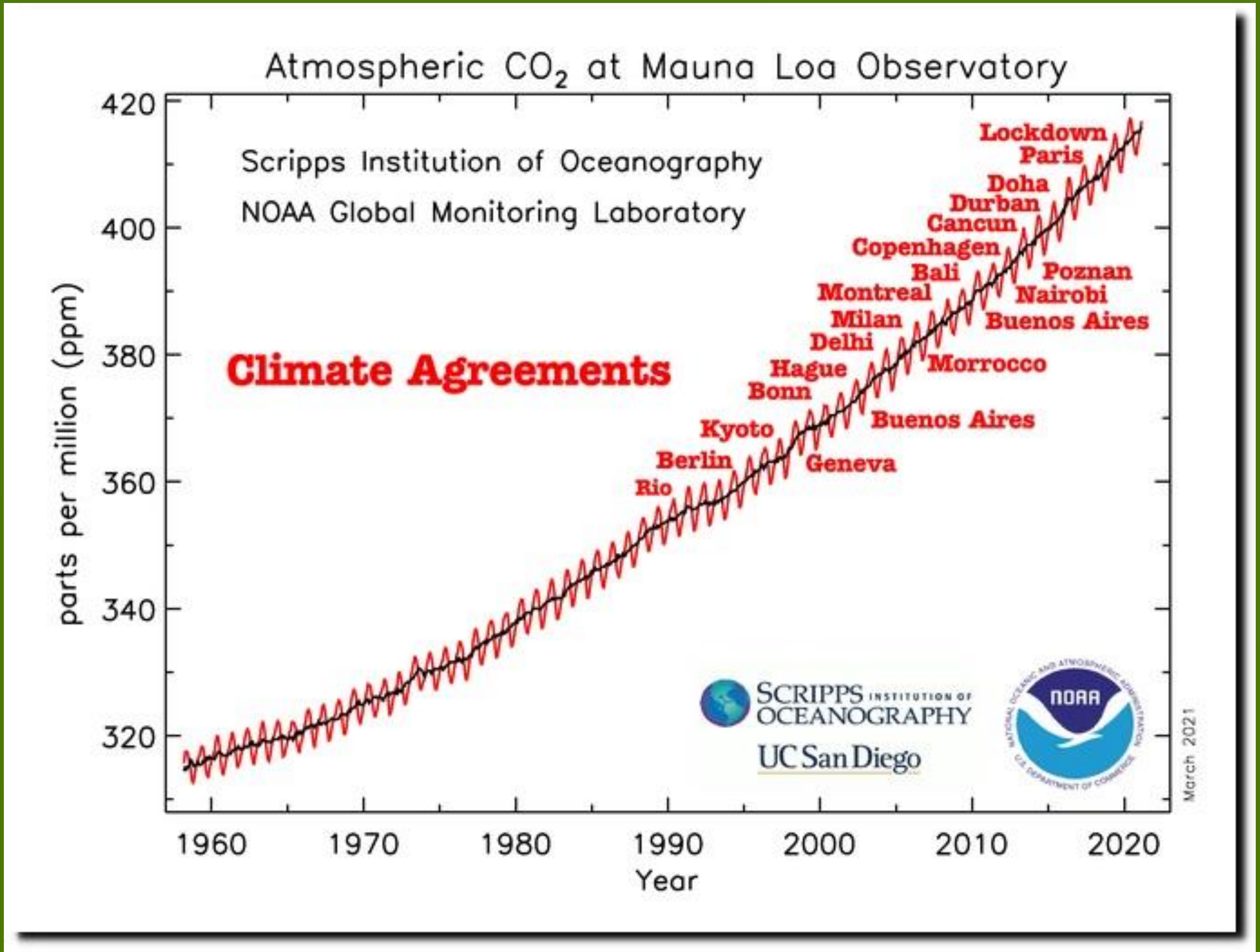
Presented to FreedomTalk

April 2022

GLOBAL CONTEXT

- Decarbonization is a global issue, not a uniquely Canadian one.
- Eighty-four per cent of the world's primary energy needs are now met by hydrocarbons.
- Only five per cent by renewables, including wind, solar and biomass.



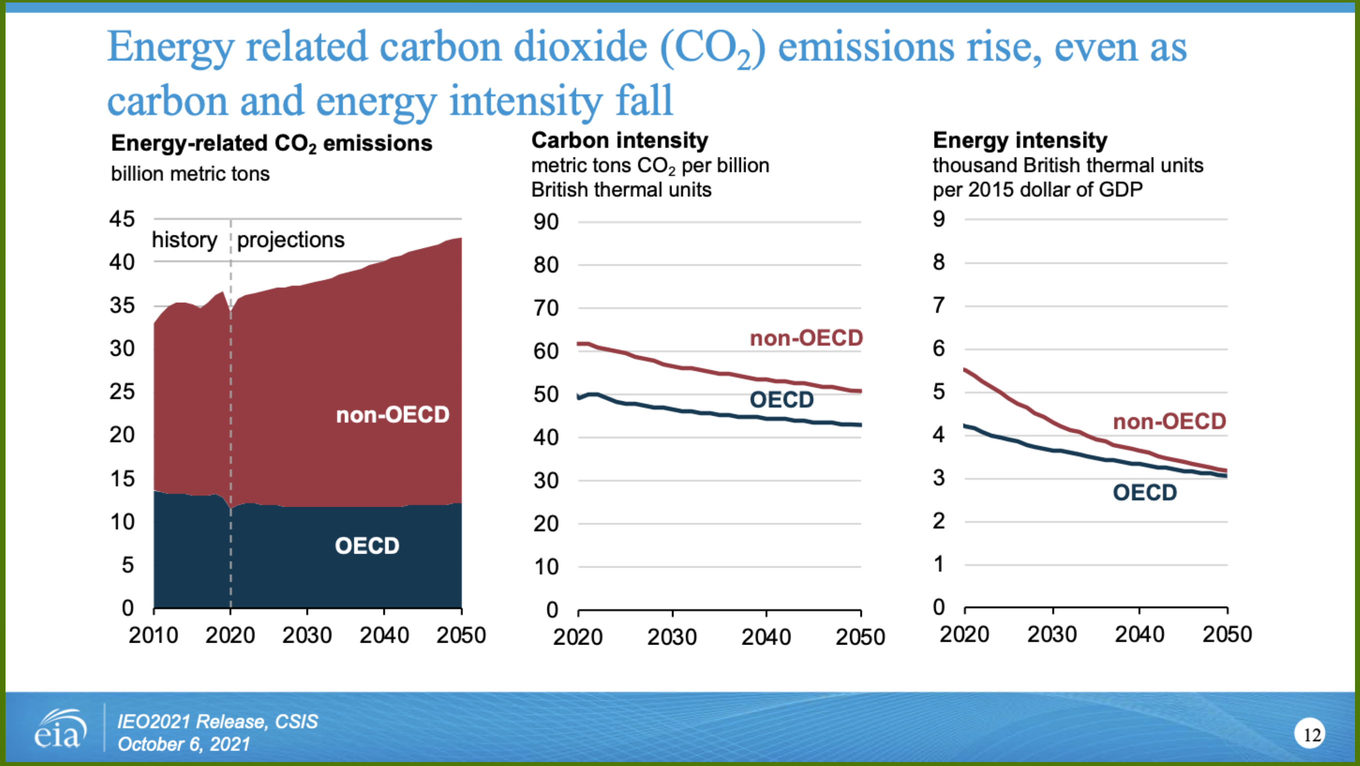


EFFECTS OF PAST CLIMATE AGREEMENTS

- Global GHG emissions today are 60% higher than they were in 1992 when the first international commitments were made to reduce emissions.
- With rare exceptions, no countries have ever met their emission-reduction commitments.
- Emissions are growing every year due to economic and population trends in the developing countries.
- Those trends are projected to continue until at least 2040.

EFFECTS OF PARIS AND GLASGOW CONFERENCES

- The Paris Agreement does not impose any legal requirement on countries to reduce emissions.
- The less developed countries have announced that they will not meet the UN's proposed emissions reduction goals without at least $750 billion per year in financial assistance from the Annex II countries.
- That money will not be paid.



PROJECTED GROWTH IN GLOBAL CO2 EMISSIONS

CANADA'S EMISSIONS 1.6% OF GLOBAL TOTAL.

- Canada's emissions, at 1.6% of the global total, are too small to make a difference to global trends in either emissions or climate.
- In the circumstances, "net zero" represents a symbolic political goal with no substantive environmental benefits.
- Even if Canadians continue to accept without question the dubious science and modelling behind the climate catastrophe thesis, they will eventually see the lack of any real rationale for actions taken only by the OECD countries.

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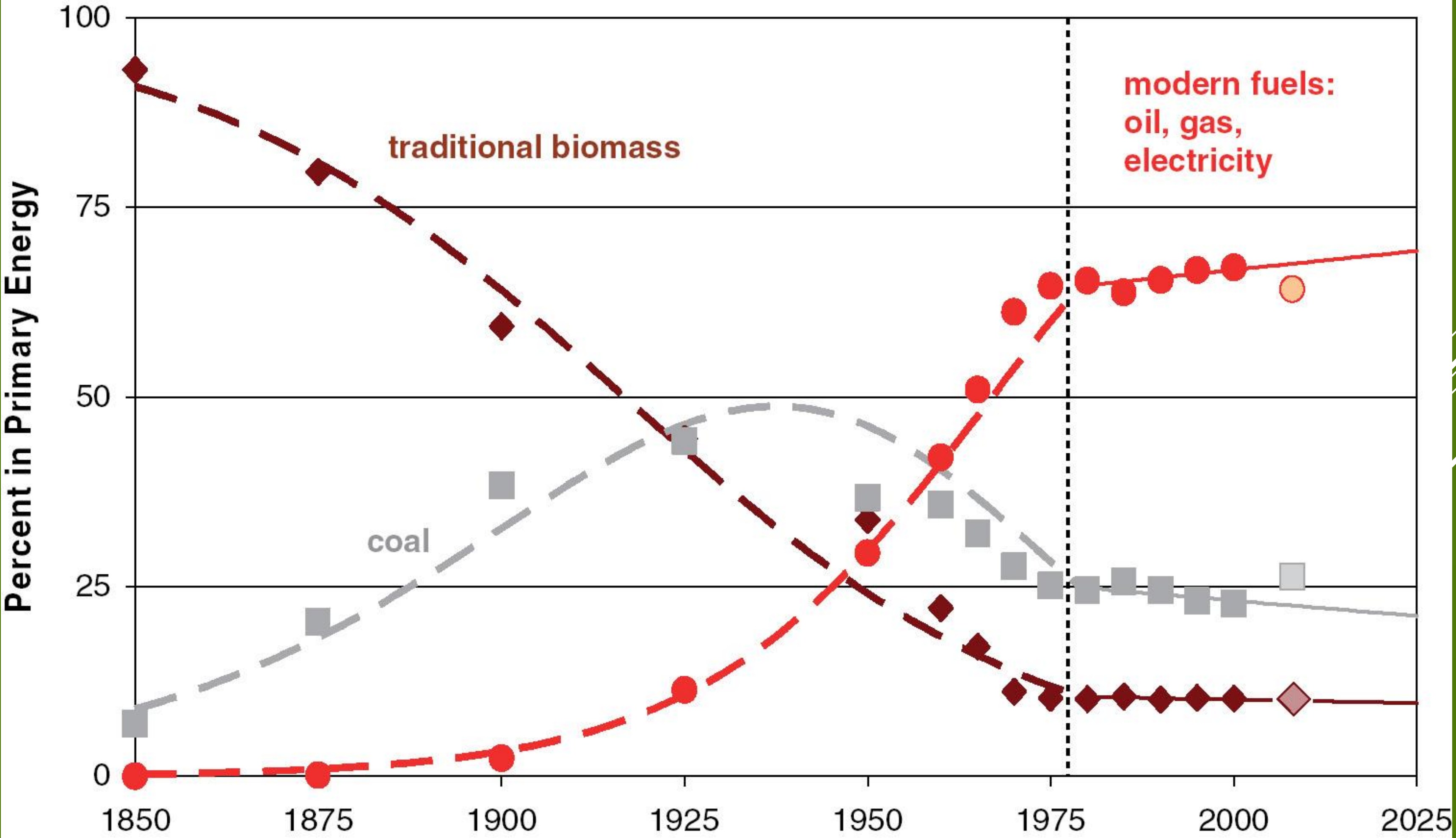
ENERGY TRANSITIONS TAKE TIME

- As well documented by Vaclav Smil, such transitions are unprecedented in history, which usually take 50 to 70 years.
- This happens only when the advantages of the new energy sources in terms of quality, reliability and cost made them appealing to buyers.
- None of those conditions exist with respect to the non-hydrocarbon sources offered today.




Forbes

New Electric Cars Perform Wonders In Towns, Rural Roads, But Run Out Of Puff On Highways

Neil Winton Senior Contributor

Forbes

Young girl with electric car without power in the battery is looking for help GETTY

MAJOR TECHNOLOGICAL BARRIERS TO NET ZERO

- Not enough generation to electrify all sectors
- Intermittency of Wind and Solar
- Cost of battery storage
- Immature technologies in transportation

https://www.forbes.com/sites/neilwinton/2020/09/06/new-electric-cars-perform-wonders-in-towns-rural-roads-but-run-out-of-puff-on-highways/?sh=256d42f569ea

- Over 300 government measures already in place
- Carbon dioxide pricing harms producers and consumers
- Large flight of capital likely
- Foregone revenues from cancelled energy infrastructure
- No more oil sands projects ever?

MAJOR ECONOMIC BARRIERS TO NET

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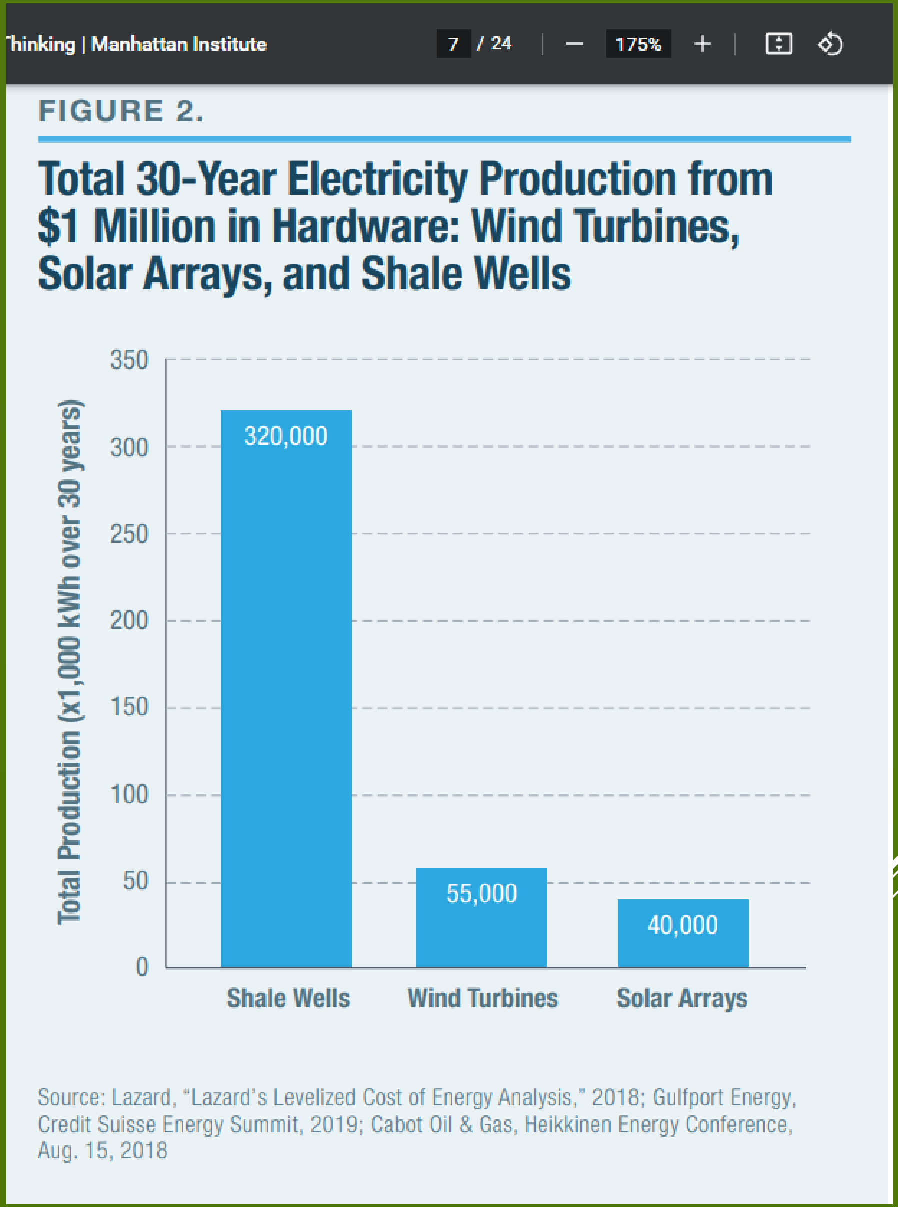
MATERIALS CONSTRAINTS

Projected materials demand growth:

Lithium	**4,200%**
Graphite	2,500%
Nickel	1,900%
Rare earths	700%



https://media4.manhattan-institute.org/sites/default/files/R-0319-MM.pdf

POLITICAL BARRIERS TO NET ZERO

- Pocketbook issues are key
- Public will resist lower standard of living
- Central planning has always failed

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https://twitter.com/Nodchevich/status/1328788882406649858

ALL PAIN. NO GAIN.

- In conclusion, decarbonization, or "net zero", is almost all pain for no gain. It is a political objective driven by environmental and central planning ideology, not sound public policy or respect for democracy. The only question is when, not whether, the adverse effects of such ideology become so evident and intolerable that the majority of Canadians will resist it and the politicians that embrace it.

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