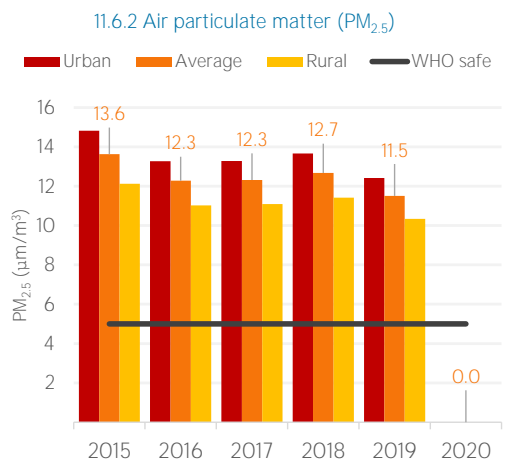
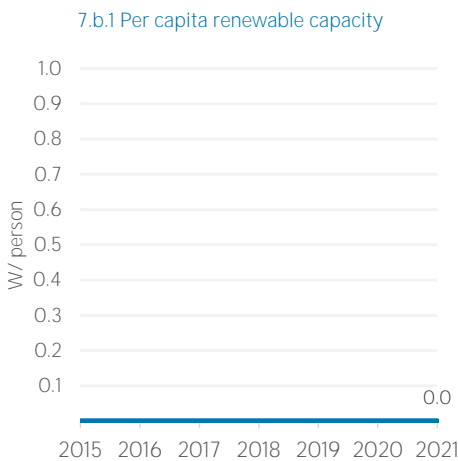
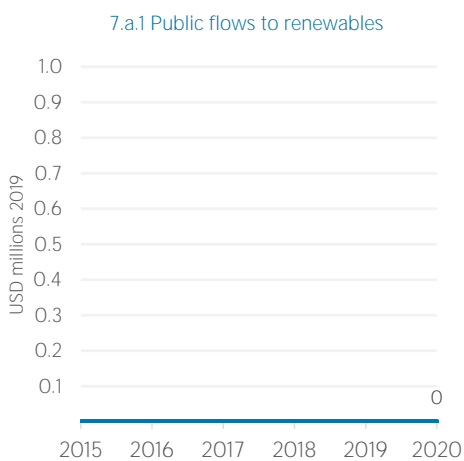
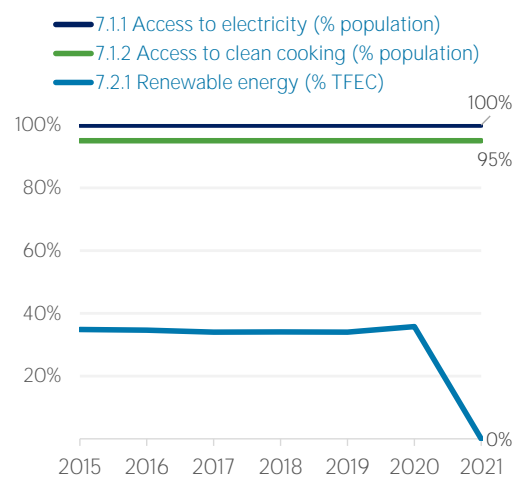
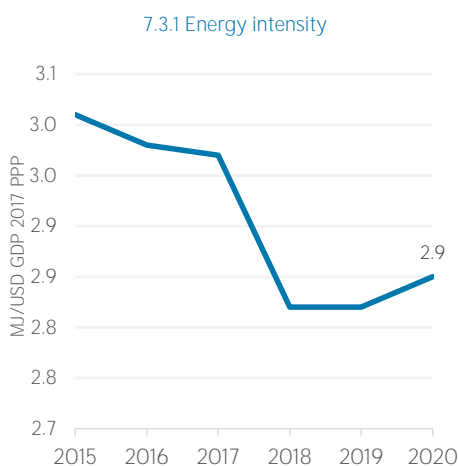
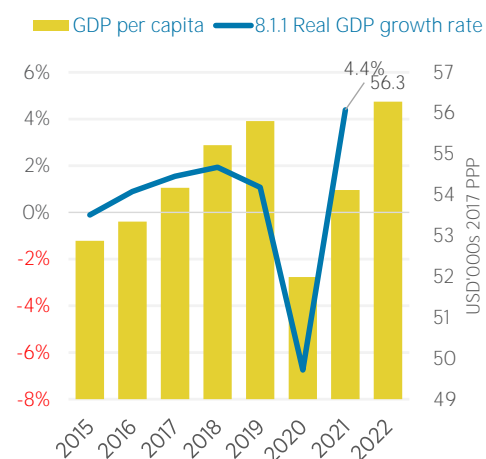


COUNTRY INDICATORS AND SDGS



TOTAL ENERGY SUPPLY (TES)

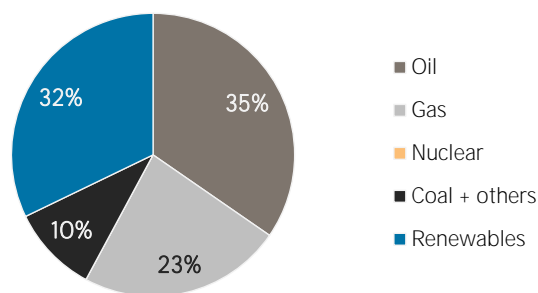
Total Energy Supply (TES)	2015	2020
Non-renewable (TJ)	934 028	890 055
Renewable (TJ)	446 003	421 849
Total (TJ)	1 380 031	1 311 904
Renewable share (%)	32	32

Growth in TES	2015-20	2019-20
Non-renewable (%)	-4.7	-8.4
Renewable (%)	-5.4	-1.4
Total (%)	-4.9	-6.3

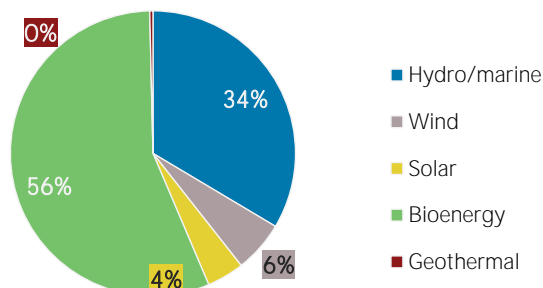
Primary energy trade	2015	2020
Imports (TJ)	1 267 002	1 372 275
Exports (TJ)	413 298	582 671
Net trade (TJ)	- 853 704	- 789 604

Imports (% of supply)	92	105
Exports (% of production)	81	118
Energy self-sufficiency (%)	37	38

Total energy supply in 2020

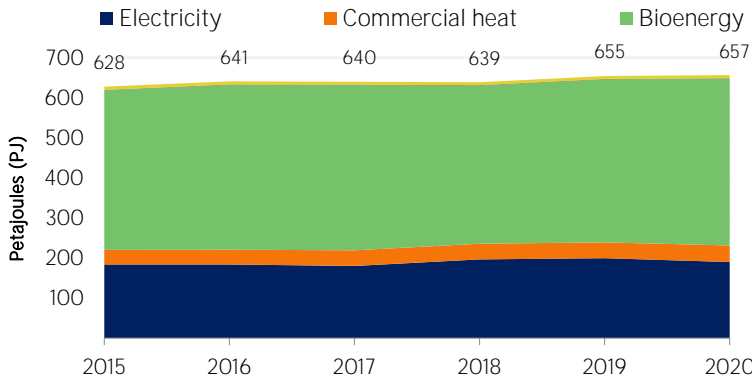


Renewable energy supply in 2020



RENEWABLE ENERGY CONSUMPTION (TFEC)

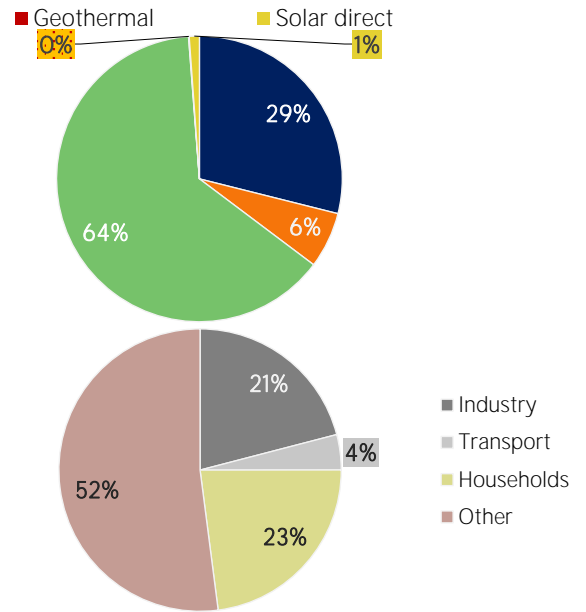
Renewable TFEC trend



Consumption by sector

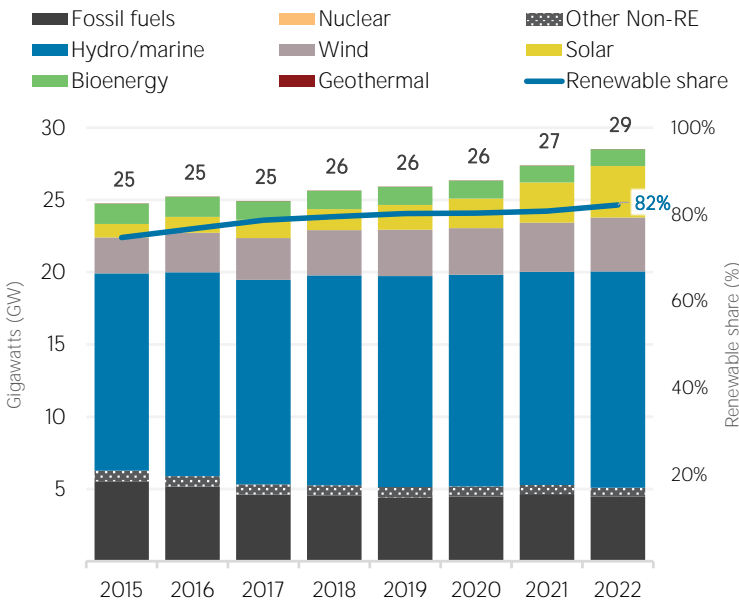
	2015	2020
Industry (TJ)	159 537	137 590
Transport (TJ)	36 597	26 499
Households (TJ)	146 967	150 834
Other (TJ)	284 629	341 803

Renewable energy consumption in 2020

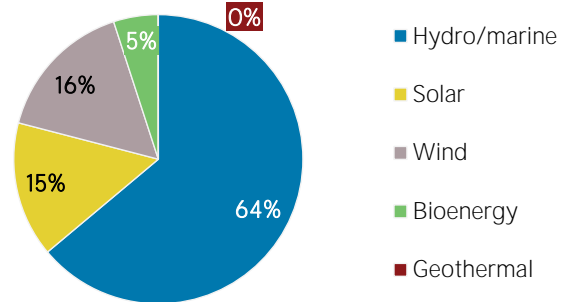


ELECTRICITY CAPACITY

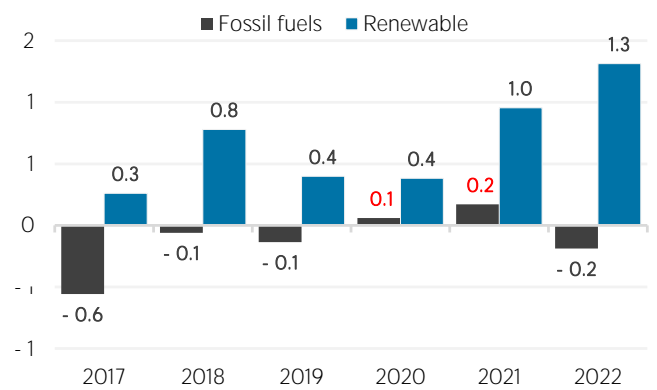
Installed capacity trend



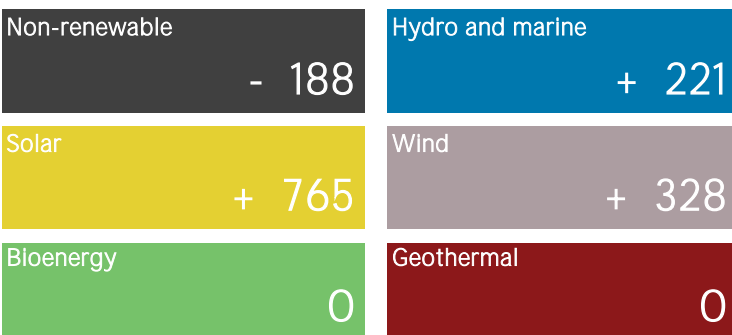
Renewable capacity in 2022



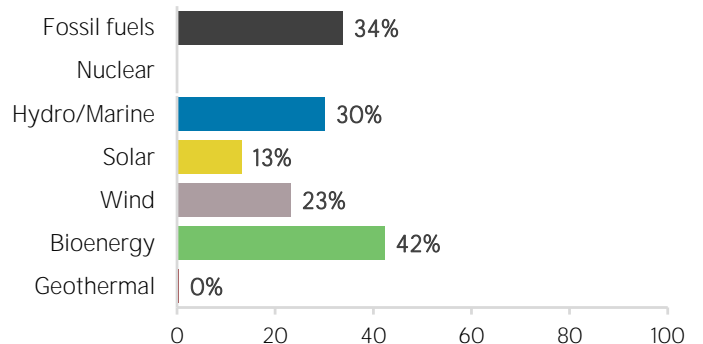
Net capacity change (GW)



Net capacity change in 2022 (MW)



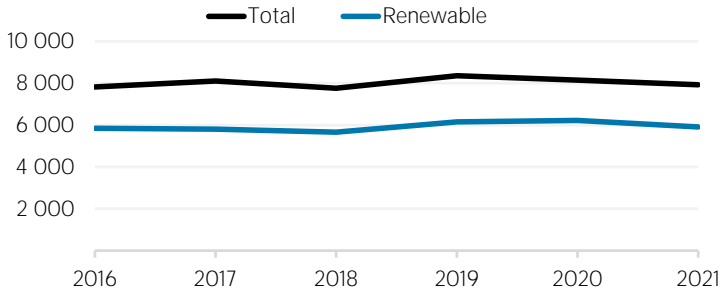
Capacity utilisation in 2021 (%)



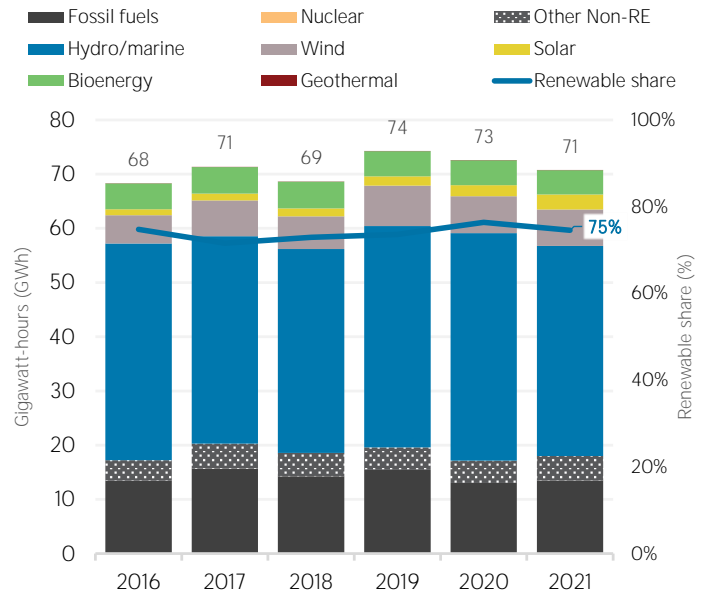
ELECTRICITY GENERATION

Generation in 2021	GWh	%
Non-renewable	17 999	25
Renewable	52 754	75
Hydro and marine	38 751	55
Solar	2 783	4
Wind	6 740	10
Bioenergy	4 480	6
Geothermal	0	0
Total	70 752	100

Per capita electricity generation (kWh)



Electricity generation trend

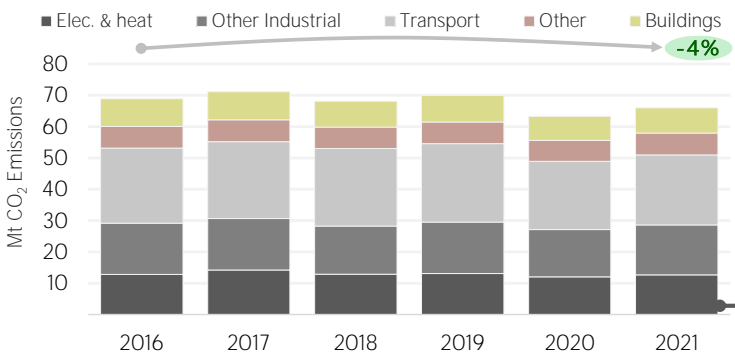


LATEST POLICIES, PROGRAMMES AND LEGISLATION

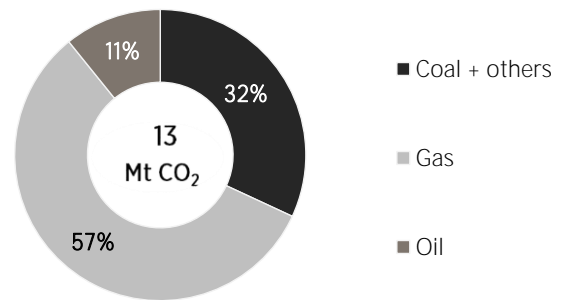
- 1 Energy subsidies for households and companies 2023
- 2 Support for decarbonising the economy 2023
- 3 2022 round of subsidies for e-mobility 2022
- 4 Blue-yellow electricity price discount 2022
- 5 Business Energy Costs Subsidy Act 2022

ENERGY AND EMISSIONS

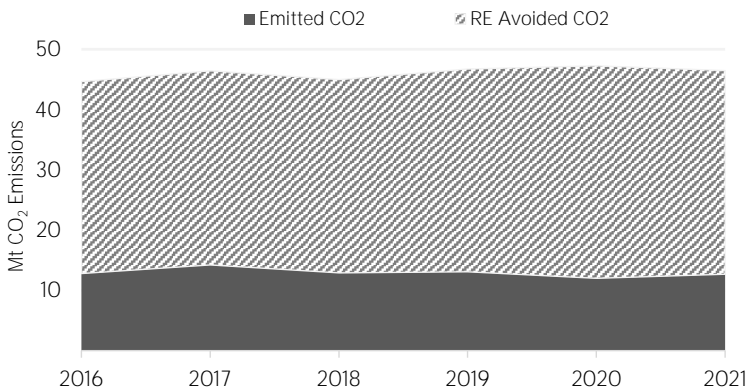
Energy-related CO₂ emissions by sector



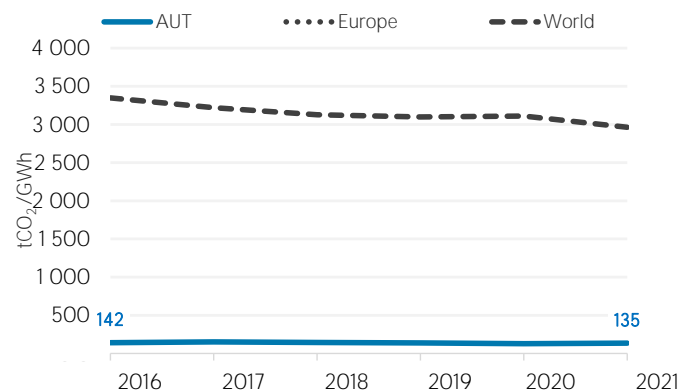
Elec. & heat generation CO₂ emissions in



Avoided emissions from renewable elec. & heat



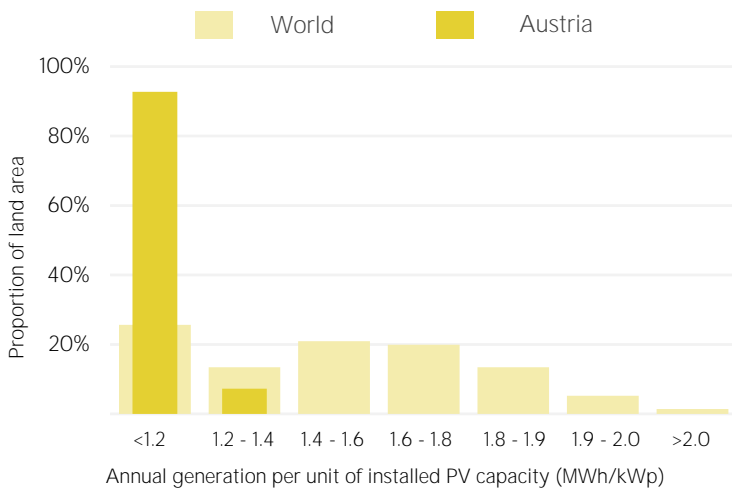
CO₂ emission factor for elec. & heat generation



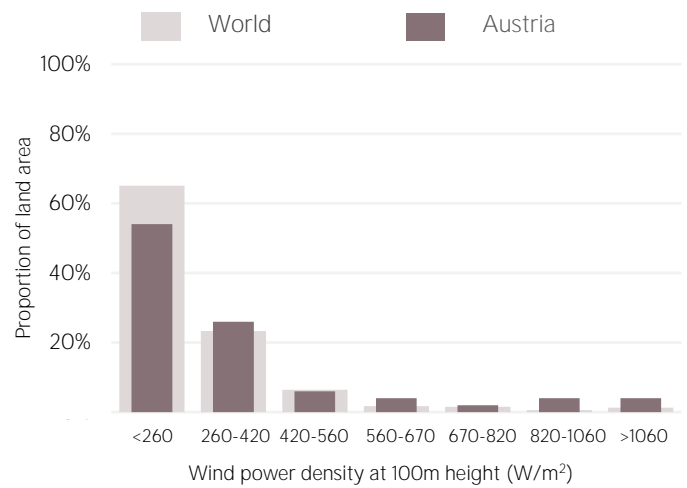
Avoided emissions based on fossil fuel mix used for power

Calculated by dividing power sector emissions by elec. + heat gen.

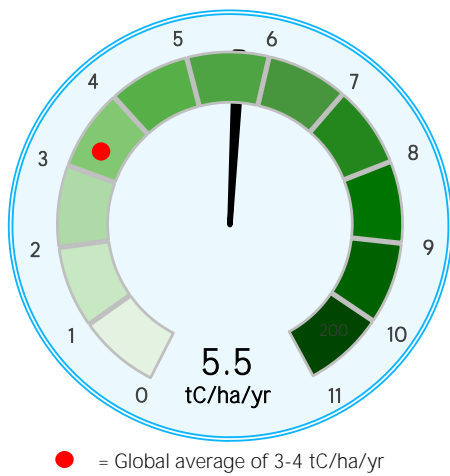
Distribution of solar potential



Distribution of wind potential



Biomass potential: net primary production



Indicators of renewable resource potential

Solar PV: Solar resource potential has been divided into seven classes, each representing a range of annual PV output per unit of capacity (kWh/kWp/yr). The bar chart shows the proportion of a country's land area in each of these classes and the global distribution of land area across the classes (for comparison).

Onshore wind: Potential wind power density (W/m^2) is shown in the seven classes used by NREL, measured at a height of 100m. The bar chart shows the distribution of the country's land area in each of these classes compared to the global distribution of wind resources. Areas in the third class or above are considered to be a good wind resource.

Biomass: Net primary production (NPP) is the amount of carbon fixed by plants and accumulated as biomass each year. It is a basic measure of biomass productivity. The chart shows the average NPP in the country (tC/ha/yr), compared to the global average NPP of 3-4 tonnes of carbon

Sources: IRENA statistics, plus data from the following sources: UN SDG Database (original sources: WHO; World Bank; IEA; IRENA; and UNSD); UN World Population Prospects; UNSD Energy Balances; UN COMTRADE; World Bank World Development Indicators; EDGAR; REN21 Global Status Report; IEA-IRENA Joint Policies and Measures Database; IRENA Global Atlas; and World Bank Global Solar Atlas and Global Wind Atlas.

Additional notes: Capacity per capita and public investments SDGs only apply to developing areas. Energy self-sufficiency has been defined as total primary energy production divided by total primary energy supply. Energy trade includes all commodities in Chapter 27 of the Harmonised System (HS). Capacity utilisation is calculated as annual generation divided by year-end capacity x 8,760h/year. Avoided emissions from renewable power is calculated as renewable generation divided by fossil fuel generation multiplied by reported emissions from the power sector. This assumes that, if renewable power did not exist, fossil fuels would be used in its place to generate the same amount of power and using the same mix of fossil fuels. In countries and years where no fossil fuel generation occurs, an average fossil fuel emission factor has been used to calculate the avoided emissions.

These profiles have been produced to provide an overview of developments in renewable energy in different countries and areas. The IRENA statistics team would welcome comments and feedback on its structure and content, which can be sent to statistics@irena.org.

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