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Global States and Regions Annual Disclosure Report 2020

Annex | December 2020

Table 1: Disclosing states and regions

States and Regions	Country
Abruzzo	Italy
Aceh	Indonesia
Acre	Brazil
Alberta	Canada
Amapá	Brazil
Amazonas	Peru
Amazonas (Brazil)	Brazil
Andalucía	Spain
Australian Capital Territory	Australia
Azores	Portugal
Baden-Württemberg	Germany
Bahia	Brazil
Baja California	Mexico
Balearic Islands	Spain
Banyuwangi Regency	Indonesia
Basque Country	Spain
Bavaria	Germany
British Columbia	Canada
California	United States of America
Campeche	Mexico
Cantabria	Spain
Caquetá	Colombia
Catalonia	Spain
Ceará	Brazil
Central Kalimantan	Indonesia
Centre Nord	Burkina Faso
Chefchaouen	Morocco
Chiapas	Mexico
Chungcheongnam-Do	Republic of Korea
Colima	Mexico
Comunidad de Madrid	Spain
Comunidade Intermunicipal do Médio Tejo	Portugal

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Connecticut	United States of America
Cross River State	Nigeria
Delhi	India
East Kalimantan	Indonesia
Estado de México	Mexico
Flevoland	Netherlands
Galicia	Spain
Grand-Est	France
Greater Wellington Regional Council	New Zealand
Guanajuato	Mexico
Hawai'i	United States of America
Helsinki-Uusimaa	Finland
Hesse	Germany
Huánuco	Peru
Innlandet County Council	Norway
Jalisco	Mexico
Jammu and Kashmir	India
Jämtland	Sweden
KwaZulu-Natal	South Africa
La Réunion	France
Lombardy	Italy
Loreto	Peru
Lower Austria	Austria
Lower Saxony	Germany
Madeira	Portugal
Madre de Dios	Peru
Małopolski	Poland
Maranhão	Brazil
Marche	Italy
Mato Grosso	Brazil
Minas Gerais	Brazil
Minnesota	United States of America
Nariño	Colombia
Navarra	Spain
New Caledonia	France
New York	United States of America
Newfoundland and Labrador	Canada
North Denmark Region	Denmark
North Kalimantan	Indonesia
North Karelia	Finland
North Rhine-Westphalia	Germany
Northwest Territories	Canada

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Nuevo León	Mexico
Oaxaca	Mexico
Occitanie	France
Opole Voivodeship	Poland
Oregon	United States of America
Papua	Indonesia
Para	Brazil
Parana	Brazil
Pastaza	Ecuador
Pernambuco	Brazil
Piedmont	Italy
Piura	Peru
Prince Edward Island	Canada
Québec	Canada
Queensland	Australia
Querétaro	Mexico
Quintana Roo	Mexico
Rhineland-Palatinate	Germany
Rio de Janeiro	Brazil
Rio Grande do Sul	Brazil
Rondônia	Brazil
Roraima	Brazil
San Luis Potosí	Mexico
San Martín	Peru
Santa Catarina	Brazil
Santa Elena	Ecuador
São Paulo	Brazil
Sardinia	Italy
Schleswig-Holstein	Germany
Scotland	United Kingdom
Sonora	Mexico
South Australia	Australia
Southern Ostrobothnia	Finland
Sud-Comoé	Côte d'Ivoire
Tabasco	Mexico
Thuringia	Germany
Tocantins	Brazil
Ucayali	Peru
Upper Austria	Austria
Victoria	Australia
Wales	United Kingdom
Wallonia	Belgium

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Washington	United States of America
West Kalimantan	Indonesia
West Papua Province	Indonesia
Western Cape	South Africa
Yucatán	Mexico

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Table 2: States and regions with net zero targets and interim targets

Government	Base year	Target type	Percentage emissions reduction target by target year						
			2020	2025	2030	2035	2040	2045	2050
Australian Capital Territory	1990	Base year emissions	40	50	65		90	Net zero	
Basque Country	2005	Base year emissions			40				Net zero
California	1990	Base year emissions			40			Net zero	
Catalonia	1990	Base year emissions			40		65		Net zero
Galicia	2005	Base year emissions	35						Reduce emissions to more than 80% below 2005 levels and achieve net zero
Hawaii	1990	Base year emissions						Net negative	
Helsinki-Uusimaa	-	Base year emissions				Net zero			
Innlandet County Council	-	Base year emissions			Net zero				
Jämtland	-	Base year emissions			Net zero				
Navarra	2005	Base year emissions	20		45				Reduce emissions to 80% below 2005 levels and achieve net zero

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Government	Base year	Target type	2020	2025	2030	2035	2040	2045	2050
New York	1990	Base year emissions			40				Reduce emissions to 85% below 1990 levels and achieve net zero emissions
Queensland	2005	Base year emissions			30				Net zero
Scotland	1990	Base year emissions	56		75		90	Net zero	
South Australia	2005	Base year emissions			50				Net zero
Thuringia	1990	Base year emissions			70		90		Reduce emissions to 95% below 1990 levels and achieve net zero emissions in the second half of this century
Victoria	2005	Base year emissions	20						Net zero
Wallonia	2005	Base year emissions							Net zero
Washington	1990	Base year emissions			45		75		Reduce emissions to 95% below 1990 levels – and achieve net zero greenhouse gas emissions.

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Table 3: 100% renewables targets by type

Government Name	Target type	Target year
Australian Capital Territory	Renewable electricity consumption	2020
Bahia	Renewable energy production	2024
Balearic Islands	Renewable energy consumption	2050
Catalonia	Renewable energy consumption	2050
Grand-Est	Renewable energy production	2050
Hawai'i	Renewable electricity consumption	2045
Hesse	Renewable energy consumption	2050
Jämtland	Renewable energy consumption	2030
Lower Austria	Renewable electricity production	2020
Lower Saxony	Renewable energy consumption	2050
New Caledonia	Renewable electricity consumption	2030
North Denmark Region	Renewable energy production	2040
North Karelia	Renewable energy production	2030
Scotland	Renewable electricity production	2020
Thuringia	Renewable energy production	2040

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Table 4: Region-wide electricity breakdown by energy source

	Energy source used for electricity generation as percentage of total electricity generation									
Government	**Coal**	**Gas**	**Oil**	**Nuclear**	**Biomass**	**Geothermal**	**Hydro**	**Solar**	**Wind**	**Other**
Abruzzo	0	40.7	0	0	0	0	38.1	15.6	5.4	0.2
Aceh	14.4	10	68.2	0	0	0	0	0	0	0
Acre	4	13	5	1	8	0	65	0	4	0
Alberta	44.81	39.7	0	0	0	0	2.86	0	6.35	6.28
Amapá	0	0	4.2	0	0	0	96.8	0	0	0
Amazonas	0	0	0	0	0	53	47	0	0	8.03
Amazonas (Brazil)	0	49	47	0	0	0	4	0	0	0
Andalusía	28.6	35.2	0	0	3.8	0	1.5	10.6	19.5	0
Australian Capital Territory	0	0	0	0	0	0	4	25	71	0
Azores	0	0	60.8	0	0	25.7	3.3	0	8.4	1.8
Baden-Württemberg	28.3	6.2	0.3	33.2	7.9	0	6.7	8.3	4.1	5
Bahia	0	0	40.82	0	0	0	27.25	0	0	31.93
Baja California	0	45.87	0.6	0	0	47.94	0	0	0	5.6
Balearic Islands	18.2	14.9	57.9	0	0.26	0	0	0.25	0.01	8.48
Basque Country	0	81.7	0.7	0	5.6	0	5.5	0.5	6	0
Bavaria	4	14.1	0.3	30.5	12.4	0.6	14.5	15.9	6.1	1.6
British Columbia	0	2	0	0	6	0	91	0	1	0
California	0.13	40.65	0.02	8.24	2.76	5.32	19.68	16.37	5.9	0.93
Campeche	0	20	80	0	0	0	0	0	0	0
Cantabria	5.43	62.3	0	0	1.6	0	27.57	0.08	3.02	0
Caquetá	0	0	0	0	0	100	0	0	0	0
Catalonia	0	29.1	0	49.1	0	0	12.4	1.1	6.3	2

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Government	Coal	Gas	Oil	Nuclear	Biomass	Geothermal	Hydro	Solar	Wind	Other
Ceará	0	52.3	0	0	0	0	0.03	0.12	47.55	0
Central Kalimantan	48	48	4	0	0	0	0	0	0	0.1
Chefchaouen	0	15	68	0	7	0	0	0	0	0
Colima	15	85	0	0	0	0	0	0	0	0
Comunidad de Madrid	0	0	0	0	12.3	0	8.9	5.5	0	73.3
Comunidade Intermunicipal do Médio Tejo	39	17	2	0	4	0	20	1	15	2
Connecticut	0.56	42.41	0.39	46.88	0.59	0	0.71	0.73	0.04	3.3
Cross River State	3.6	1.6	0	0	68	0.6	0	0	0	29.6
Delhi	58.11	27.9	0	1.36	0	0	9.76	2.87	0	0
Estado de México	0	99.8	0.2	0	0	0	3.5	0	0	0
Galicia	32.8	7.2	3.7	0	0.8	0	28.2	0.14	26.5	0.57
Grand-Est	0	14	0	73	1	0	9	1	8	0
Greater Wellington Regional Council	0	0	0	0	0	0	0.5	0.1	97	2.4
Guanajuato	0	48.22	49.74	0	1	0	1	0.04	0	0
Hawai'i	13.2	0	68	0	3.1	3.2	1	2.1	5.5	3.9
Hesse	19.7	28.1	0	0	0	0	0	0	0	52.2
Huánuco	0	0	0	0	0	1	99	0	0	0
Innlandet County Council	0	0	0	0	0.4	0	98.5	0	1.1	0
Jalisco	28.1	0	0	0	6.6	0	48.4	4.5	12.4	0
Jämtland	0	0	0	0	1	0	87	0	12	0
KwaZulu-Natal	23	5	0	0	0	0	72	0	0	0
La Réunion	38.1	0	29.5	0	8.7	0	14.1	8.6	0.5	0.4
Lombardy	0.3	58.1	0.8	0	8.8	0	22.4	4.8	0	4.8
Loreto	0	0	0	0	0	100	0	0	0	0
Lower Austria	6	10	3	0	7	0	48	2	24	0

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Government	Coal	Gas	Oil	Nuclear	Biomass	Geothermal	Hydro	Solar	Wind	Other
Lower Saxony	12.7	14.5	0.27	24.3	10.5	0	0.26	3.2	31.2	2.7
Madeira	0	16	53	0	4	0	11	4	12	0
Madre de Dios	0	0	0	0	0	100	0	0	0	0
Małopolski	80	20	0	0	0	0	0	0	0	0
Mato Grosso	0	4.89	0.13	0	2.95	0	90.77	0.03	0	0.11
Minas Gerais	0	0	0	0	0	0	85.2	0	0	14.8
Minnesota	38.97	14.71	0.04	23.43	1.61	0	1.89	0.02	17.95	1.38
Navarra	0	30.78	0	0	5.74	0	12.69	5.68	45.1	0
New Caledonia	45.4	0	40.9	0	0.02	0	8.52	3.47	1.69	0
New York	3.1	36.2	0.7	31.4	0.3	0	23.5	0.9	1.8	2.1
Newfoundland and Labrador	0	0	5.1	0	0	0	94.5	0	0.5	0
North Denmark Region	23	11	0	0	2	0	0	2	60	0
North Karelia	0	0	4	23	67	2	0	0	0	4
North Rhine-Westphalia	67.9	11.8	0.8	0	3.9	0	0.4	2.3	5.6	7.3
Northwest Territories	0	15.8	23.9	0	0	0	60.4	0	0	0
Nuevo León	0	90.02	0	0	0.05	0	0	0.03	9.9	0
Occitanie	0	0	0	49.5	2	0	29	7.5	11	1
Oregon	2.8	24	0	0	0.6	0.3	61.1	0.3	9.9	1
Pastaza	0	0	2	0	0	6	90	0	2	0
Pernambuco	39.03	0	0	0	7.25	0	35.15	18.32	0.25	0
Piura	0	0	0	0	0	87	7	0	5	0
Québec	0	0.06	0.28	0	1.01	0	94.12	0	4.53	0
Queensland	76	16	1	0	2	0	1	4	0	0
Querétaro	0	88	12	0	0	0	0	0	0	0
Rhineland-Palatinate	0.4	47.8	0	0	4.2	0.1	3.9	9.3	28.3	6

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Government	Coal	Gas	Oil	Nuclear	Biomass	Geothermal	Hydro	Solar	Wind	Other
Rio de Janeiro	8	30	11	46	0.3	0	4	0.3	0.4	0
Rio Grande do Sul	14.6	8.1	0	0	0	0	58	0.1	19.2	0
Rondônia	0	0	14	0	0	0	86	0	0	0
San Martín	0	0	0	0	0	68.15	31.85	0	0	0
Santa Catarina	19.24	0	0	0	4.96	0	70.65	0.13	5.02	0
Santa Elena	0	0	100	0	0	0	0	0	0	0
São Paulo	0	14	1	0	9	0	70	0	0	6
Sardinia	36	0	35	0	6	0	4	6	13	0
Schleswig-Holstein	8	3.4	1.7	17.7	9.5	0	0	3.8	55.9	0
Scotland	0	15.1	0.6	28.2	3.5	0	11.3	0.7	40.2	1.2
Sonora	38	19	40	0	0	0	2	0	0	1
South Australia	0	47.4	0	0	0	0	0	11.6	39.5	1.5
Southern Ostrobothnia	0	0	0	0	0	0	5.4	0	34.8	59.8
Thuringia	0	20.49	0	0	19.07	0	1.96	10.99	26.99	20.36
Tocantins	0	0	0	0	2	0	93	5	0	0
Ucayali	0	0	0	0	0	100	0	0	0	0
Victoria	67.4	6.1	0	0	1.7	0	4.8	7	13	0
Wales	1.4	72.4	1.64	0	2.5	0	1.2	3	16.4	1.2
Wallonia	0	24.7	0	56.3	5.5	0	1	4	6.3	2.2
Washington	13.39	10.83	0.11	4.19	0.6	0	67.68	0.01	2.84	0.35
West Kalimantan	1.2	8.3	90.2	0	0	0	0	0	0	0.3
Western Cape	85.7	3.2	0	5.2	0	0	0	0.9	0.9	4.1
Yucatán	0	65	13.51	0	0	0	0	5.9	15.59	0
Mean average use per source	**12.2**	**19.5**	**11.0**	**5.8**	**3.8**	**7.4**	**23.8**	**2.6**	**9.8**	**4.0**

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Table 5: Forestry targets

Government	Target year	Target detail
California	2020	Sequester 5 MMT CO2e annually by 2020.
California	2023	Executive Order B-52-18 directs the California Natural Resources Agency to take all necessary steps to double the total statewide rate of forest treatments including prescribed fire, fuel reduction, and thinning of overly dense forests, within 5 years (by 2023) to at least 500,000 acres per year.
Campeche	2030	Reduce the level of emissions associated with land use change by 50 percent of the reference value established in the state inventory of greenhouse gases for Campeche as part of the State Climate Change Program. Achieve zero percent carbon loss rate by 2030.
Campeche	2030	Conserve the biodiversity of the State's forest ecosystems allows the improvement and increase of environmental goods and services, the regeneration of resources and the restoration of soils in different successional phases.
Campeche	2030	Increase the approved forest area effectively used to 16% in 2020 and 40% by 2030 based on 2014, under sustainable management, forest conservation and natural and induced regeneration of resources (Government of the State of Campeche, 2012a).
Chiapas	2024	Reduce deforestation from 32,000 hectares of forest in 2014 to 10,000 in 2024.
Chiapas	2024	Increase forest area by 20%.
Colima	2021	Increase by 1% the surface area of the territory of the state of Colima as a Protected Natural Area.
Connecticut	2023	Conserve 21% of Connecticut's land base as open space by year 2023.
Cross-River State	2030	Raise 100,000 seedlings annually to plant 160,000 trees in degraded forest reserves, community forests and marginal land.
Cross-River State	2030	Restore 34000ha with woodlot establishment for fuelwood, roofing, largely in Agroforestry. Plantations are established across degraded swampy coastlines, mined fields and depleted community forests and marginal lands.
Estado de México	2023	Reforest 15 thousand hectares with 14.5 million trees.
Galicia	2040	Maintain 2 million hectares of forest. Galicia’s Forestry Plan is under review.
Hawai'i	2030	Protect 30% (253,000 acres) of Hawaii’s highest priority watershed forests.
Jalisco	2030	Increase the area under sustainable forest management by 10%.
Minas Gerais	2030	Aim to increase the percentage of total native vegetation in the state by 15%.
Pastaza	2025	Annually restore 110 hectares of degraded areas.

San Martín	2021	19% increase in forest cover.
Wales	2020	Expand the woodland cover in Wales by 2000ha a year from 2020 rising to 4000ha a year as soon as possible.
Yucatán	2030	25% increase in the forest conservation area with the consequent increase in carbon reserves or stocks, from 810,000 land hectares under conservation schemes such as ANP, UMA or payment for environmental services, to 1 million hectares in 2030.
Yucatán	2030	Reduce the loss of forest carbon derived from the degradation of forest ecosystems caused by forest fires, going from an average of 4,000 hectares per year degraded by fires (between 1991 and 2015) to an average of 2,000 hectares per year affected on average (2016-2030) through comprehensive fire management.
Yucatán	2030	Triple the forest area under sustainable management with the consequent increase in carbon reservoirs from 11,413 hectares of timber and non-timber forest management to 34,200 hectares by 2030.

Table 6: Count of deforestation drivers

Driver of deforestation	**Count**
Small-scale agriculture and colonization	35
Fires	32
Unsustainable logging	28
Large-scale agriculture	25
Livestock	25
Mining	21
Charcoal and fuelwood	18
Infrastructure	13
Pulp plantations	5
Hydroelectric power	3
Other	17

Table 7: 2030 region-wide GHG emissions reduction targets

Government	**Base Year**	**Target type**	**Percentage reduction target**
Andalucía	2005	Base year emissions	26
Australian Capital Territory	1990	Base year emissions	65
Azores	2014	BAU Scenario	38
Balearic Islands	1990	Base year emissions	40

Basque Country	2005	Base year emissions	40
British Columbia	2007	Base year emissions	40
California	1990	Base year emissions	40
Catalonia	1990	Base year emissions	40
Connecticut	2001	Base year emissions	45
Hesse	1990	Base year emissions	55
Innlandet County Council	-	Fixed Level	Net zero
Jämtland	-	Fixed Level	Net zero
Lombardy	2005	Base year emissions	40
Lower Austria	2005	Base year emissions	36
Lower Saxony	1990	Base year emissions	55
Madeira	1990	Base year emissions	30
Małopolski	1990	Base year emissions	40
Navarra	2005	Base year emissions	45
New York	1990	Base year emissions	40
Newfoundland and Labrador	2005	Base year emissions	30
North Kalimantan	2000	BAU Scenario	33
North Karelia	2007	BAU Scenario	80
Northwest Territories	2005	Base year emissions	30
Québec	1990	Base year emissions	37.5
Queensland	2005	Base year emissions	30
Rio de Janeiro	2005	Base year intensity	0.13 TCO2e/R $1000
Scotland	1990	Base year emissions	75
South Australia	2005	Base year emissions	50
Thuringia	1990	Base year emissions	70

Wales	1990	Base year emissions	45
Washington	1990	Base year emissions	45
Yucatán	2005	Base year emissions	40

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Table 8: Progress to 2030 region-wide GHG emissions reduction targets

Government	Base Year	Target type	Base year total gross emissions (metric tonnes CO2e)	Base year total net emissions (metric tonnes CO2e)	Current total gross emissions (metric tonnes CO2e)	Current total net emissions (metric tonnes CO2e)	Net or gross emissions used	Percentage reduction target	BAU emissions (metric tonnes CO2e)	Predicted emissions in target year	Progress to target
Andalucía	2005	Base year emissions	67,679,605	N/A	52,112,944	N/A	Gross	26		50,082,908	88%
Australian Capital Territory	1990	Base year emissions	3,196,800	2,940,000	2,798,817	2,567,817	Gross	65		1,118,880	19%
Azores	2014	BAU Scenario	1,724,070	299,694	1,838,713	990,575	Gross	38	1,393,814	864,165	-13%
Basque Country	2005	Base year emissions	25,478,169	22,873,798	18,937,998	17,003,296	Gross	40		5,095,634	64%
British Columbia	2007	Base year emissions	63,401,267	63,401,267	67,924,286	66,916,415	Gross	40		38,040,760	-18%
California	1990	Base year emissions	431,000,000	N/A	425,300,000	N/A	Gross	40		258,600,000	3%
Catalonia	1990	Base year emissions	41,357,155	N/A	43,955,786	N/A	Gross	40		24,814,293	-16%
Connecticut	2001	Base year emissions	49,165,311	N/A	40,603,041	N/A	Gross	45		27,040,921	39%
Hesse	1990	Base year emissions	N/A	50,788,000	N/A	40,754,000	Net	55		22,854,600	36%

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Government	Base Year	Target type	Base year total gross emissions (metric tonnes CO2e)	Base year total net emissions (metric tonnes CO2e)	Current total gross emissions (metric tonnes CO2e)	Current total net emissions (metric tonnes CO2e)	Net or gross emissions used	Percentage reduction target	BAU emissions (metric tonnes CO2e)	Predicted emissions in target year	Progress to target
Lombardy	2005	Base year emissions	86,500,000	N/A	67,300,000	64,800,000	Gross	40		69,200,000	55%
Lower Saxony	1990	Base year emissions	97,466,000.00	97,466,000	83,990,000	82,312,000	Net	55		43,859,700	25%
Navarra	2005	Base year emissions	6,635,256	N/A	5,656,904	N/A	Gross	45		3,649,391	33%
New York	1990	Base year emissions	236,190,000	N/A	205,610,000	N/A	Gross	40		141,714,000	32%
Newfoundland and Labrador	2005	Base year emissions	10,453,040	14,290,882.00	11,009,469	11,009,469	Gross	30		7,317,128	-18%
North Karelia	2007	BAU Scenario	1,695,000	N/A	1,281,000	N/A	Gross	80	350,000	70,000	25%
Northwest Territories	2005	Base year emissions	1,586,000	N/A	1,230,000	N/A	Gross	30		1,110,200	75%
Québec	1990	Base year emissions	86,102,000	N/A	78,635,017	N/A	Gross	37.5		53,813,750	23%
Queensland	2005	Base year emissions	121,222,022	187,315,274	148,900,000	171,743,053	Net	30		131,120,692	28%
Scotland	1990	Base year emissions	85,510,887	76,200,163	54,668,826	41,613,121	Net	75		19,050,041	61%
South Australia	2005	Base year emissions	32,001,000	35,438,000	28,924,000	24,241,000	Net	50		17,719,000	63%

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Government	Base Year	Target type	Base year total gross emissions (metric tonnes CO2e)	Base year total net emissions (metric tonnes CO2e)	Current total gross emissions (metric tonnes CO2e)	Current total net emissions (metric tonnes CO2e)	Net or gross emissions used	Percentage reduction target	BAU emissions (metric tonnes CO2e)	Predicted emissions in target year	Progress to target
Thuringia	1990	Base year emissions	32,690,000	N/A	13,045,000	N/A	Gross	70		6,538,000	86%
Wales	1990	Base year emissions	56,724,174	56,299,777	39,335,277	38,891,542	Net	45		30,964,878	69%
Washington	1990	Base year emissions	90,498,300	N/A	97,500,000	58,130,200	Gross	45		49,774,065	-17%

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Adjustment of IPCC recommendation of 40-50% emissions reductions from 2010 levels for different base years

The IPCC published the following statement in their 2018 Special Report on Global Warming of 1.5°C:

"Pathways that limit global warming to 1.5°C with no or limited overshoot show clear emission reductions by 2030 (*high confidence*). All but one show a decline in global greenhouse gas emissions to below 35 $GtCO_2eq\ yr^{-1}$ in 2030, and half of available pathways fall within the 25–30 $GtCO_2eq\ yr^{-1}$ range (interquartile range), a 40–50% reduction from 2010 levels (*high confidence*)."

We conducted an analysis of 2030 region-wide greenhouse gas emissions reduction targets reported by states and regions to compare their level of ambition with this recommendation. To allow comparison with the IPCC recommended 40-50% reductions from 2010 levels by 2030, we adjusted the range of ambition for each of the different base years reported by governments with 2030 targets.

We used historical total global emissions in 2010 from the Climate Action Tracker and calculated 40% and 50% of those emissions to gain an estimate of expected global emissions in 2030 if the IPCC recommended reductions were achieved. We then calculated for each base year the percentage reductions that would need to be achieved to yield the same level of emissions. We used historical total global emissions from the Climate Action Tracker for each reported base year, shown in Table 9. This gave us an equivalent range of the 40-50% reductions from 2010 levels for each different base year that reporting states and regions have used to set their 2030 emissions reduction targets against.

Historical global emissions data used in this analysis can be downloaded from the Climate Action Tracker here: https://climateactiontracker.org/global/temperatures/

Table 9: IPCC-recommended 2030 emissions reduction target range adjusted for different base years

Year	Global emissions (metric tonnes CO2e)	IPCC-recommended 2030 emissions reduction target range (%) adjusted for different base years reported by states and regions	
		Lower quartile of ambition (%)	Upper quartile of ambition (%)
1990	35,989,277,241	19.7	33.1
2001	39,758,757,000	27.3	39.4
2005	44,395,809,300	34.9	45.7
2007	46,570,850,200	37.9	48.3
2010	48,184,780,100	**40.0**	**50.0**
2014	50,529,967,400	42.8	52.3

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Comparison of 2030 state and regional emissions reduction targets to national ambition

We compared the ambition of states and regions that reported 2030 emissions reduction targets with that of their national counterparts. We compared the state and regional 2030 emissions reduction targets to the 2030 unconditional Nationally Determined Contributions of their national governments. For all states and regions within the EU, we used the EU's NDC.

For NDCs that cover a range of emissions reductions (e.g. the Australian NDC is 26-28% reductions from 2005 levels by 2030) we compared state and regional ambition to the highest level of national ambition (e.g. we compared Australian states' 2030 targets to 28% reductions from 2005 levels in the case of the Australian NDC).

For states and regions that reported a different base year for their 2030 target from that used for their national government's NDC, we adjusted the NDC accordingly to make a comparison. We used historical national emissions for the NDC base year to calculate expected national emissions in 2030 if the NDC were achieved. We then calculated for the base year of the state or regional target the percentage reductions that would need to be achieved to yield the same level of emissions in 2030.