Supplementary figures and tables

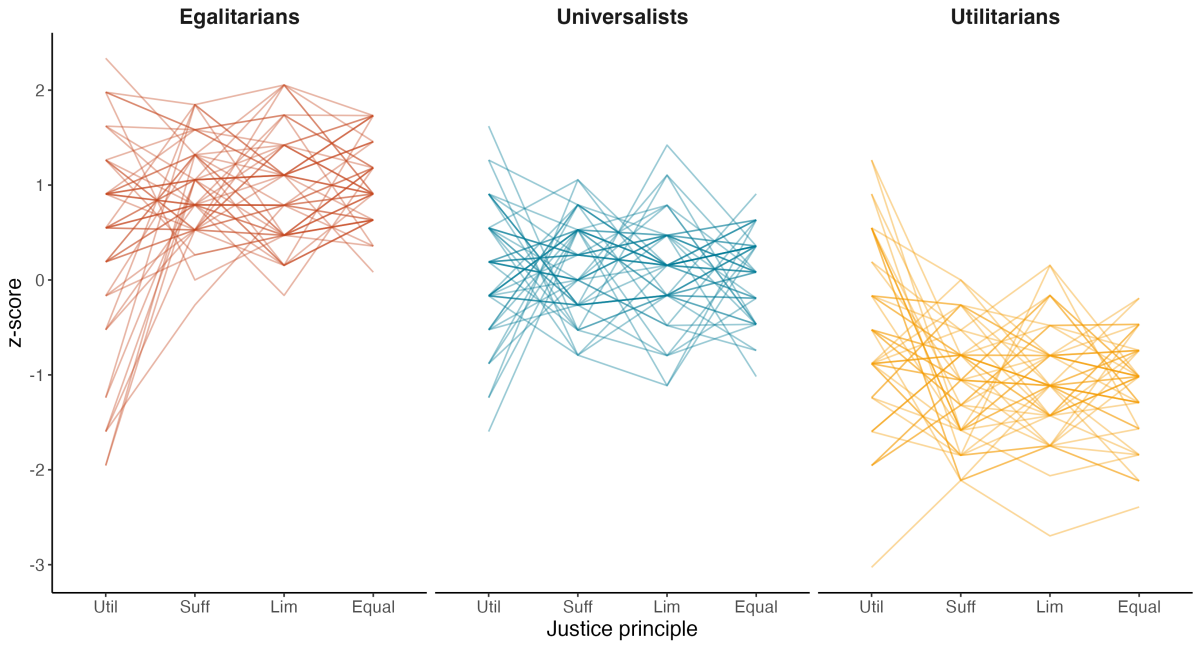


Figure S1: Individual profiles of z-scores across the assessed justice principles. Random subsamples (n=50) are displayed for each climate justice orientation to illustrate profiles of individuals. Util = unconstrained outcomes, Suff = sufficiency limit, Lim = Upper limit, Equal = Equal outcomes. Related to Figure 1.

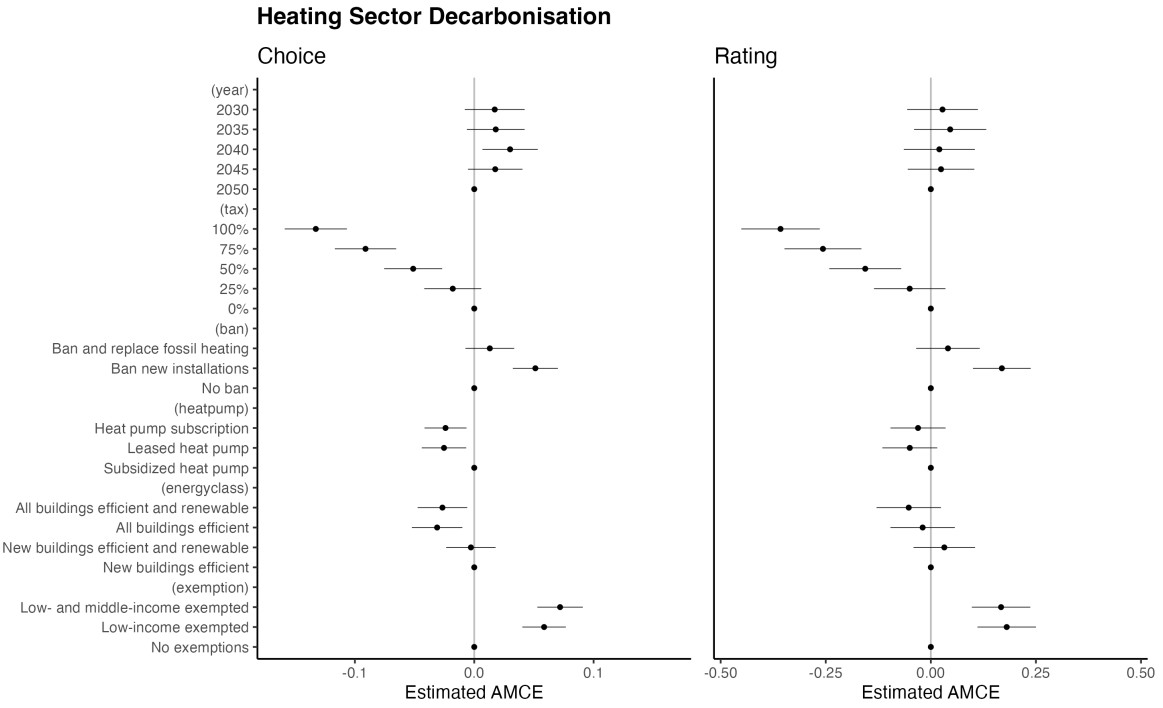


Figure S2: Comparison of choice and rating outcomes for the heating sector decarbonisation experiment, showing average marginal component effects (AMCE).

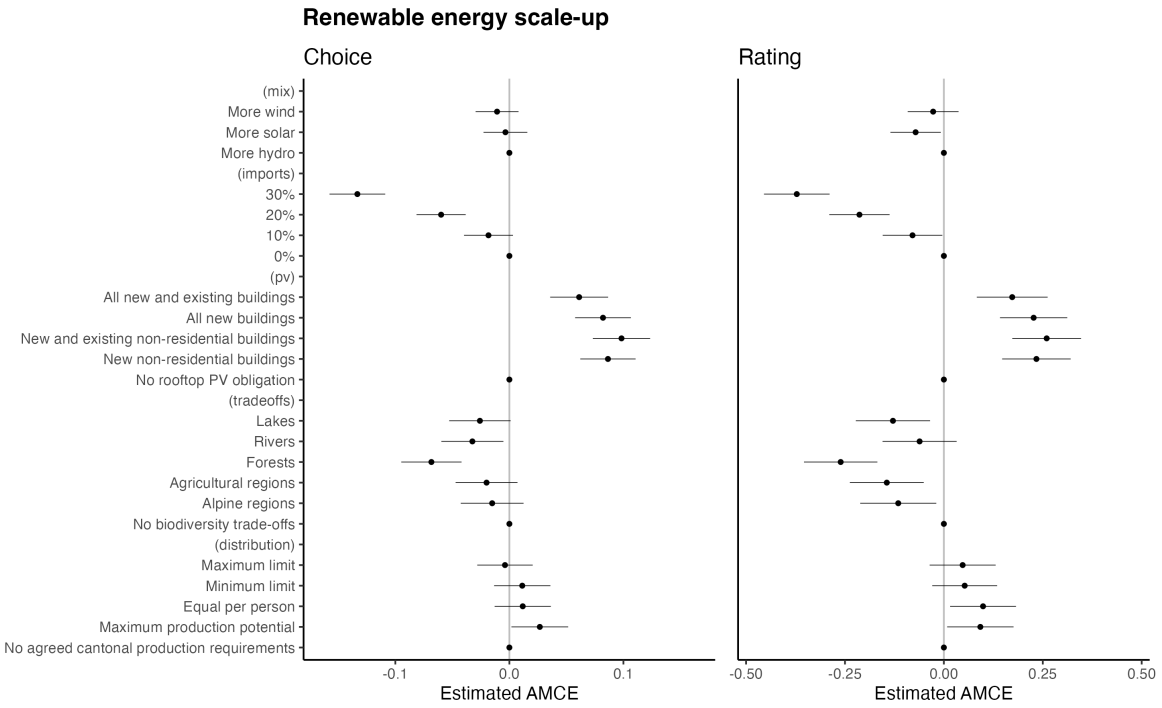


Figure S3: Comparison of choice and rating outcomes for the renewable energy scale-up experiment, showing average marginal component effects (AMCE).

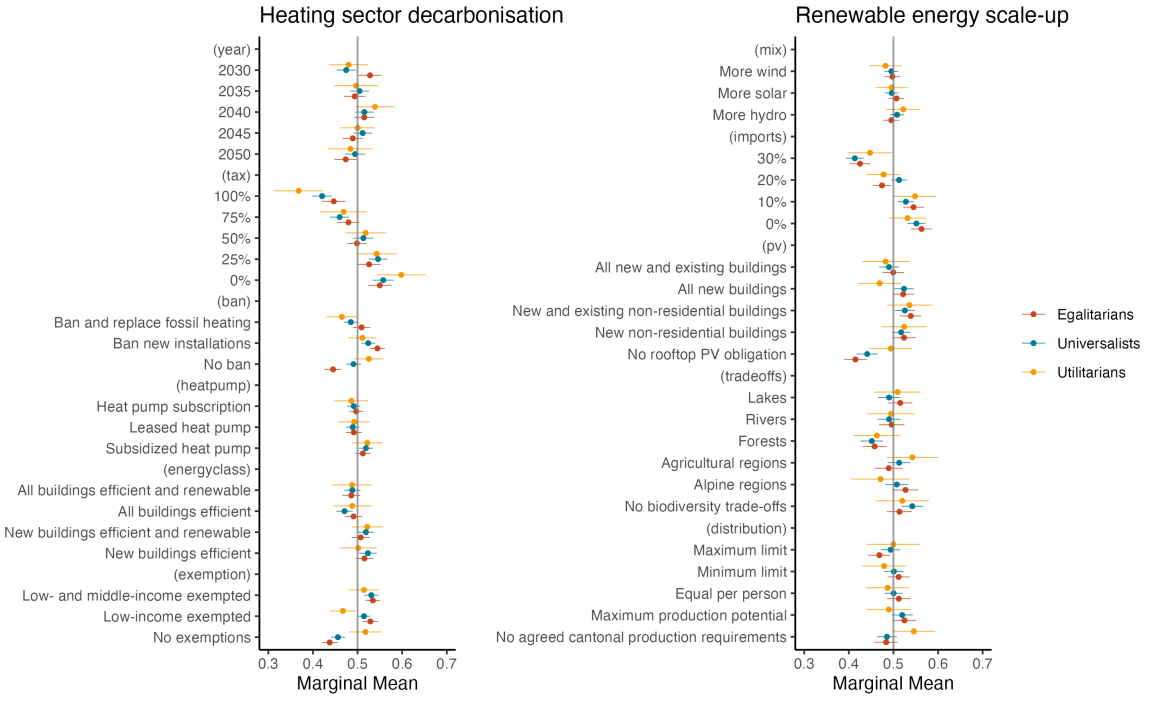


Figure S4: Acceptability for all policy instruments across the three justice orientations, showing marginal means.

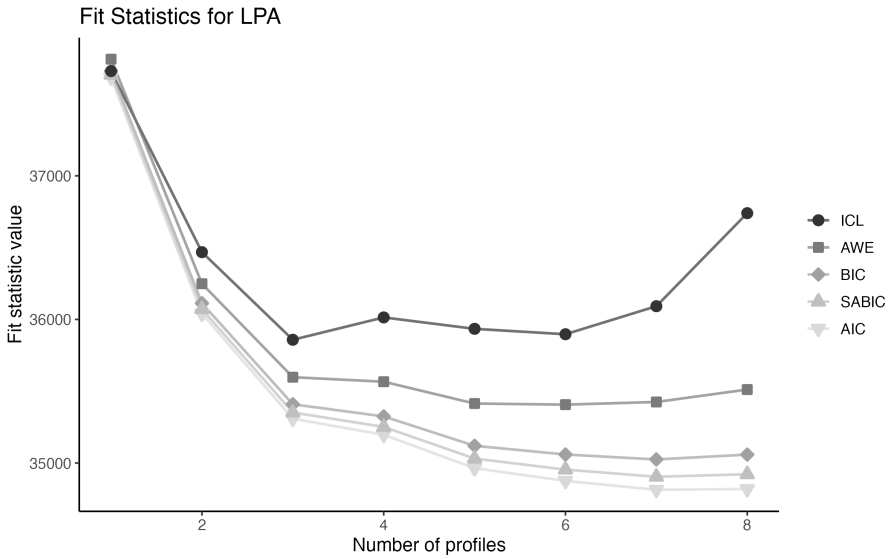


Figure S5: Fit statistics for models with 1 to 8 profiles. These information criteria were used when selecting a solution: AIC – Akaike information criterion, AWE – approximate weight of evidence criterion, BIC – Bayesian information criterion, ICL – integrated completed criterion, SABIC – sample size adjusted BIC. For the ICL, opposite values are plotted to compare these values to the other criteria.

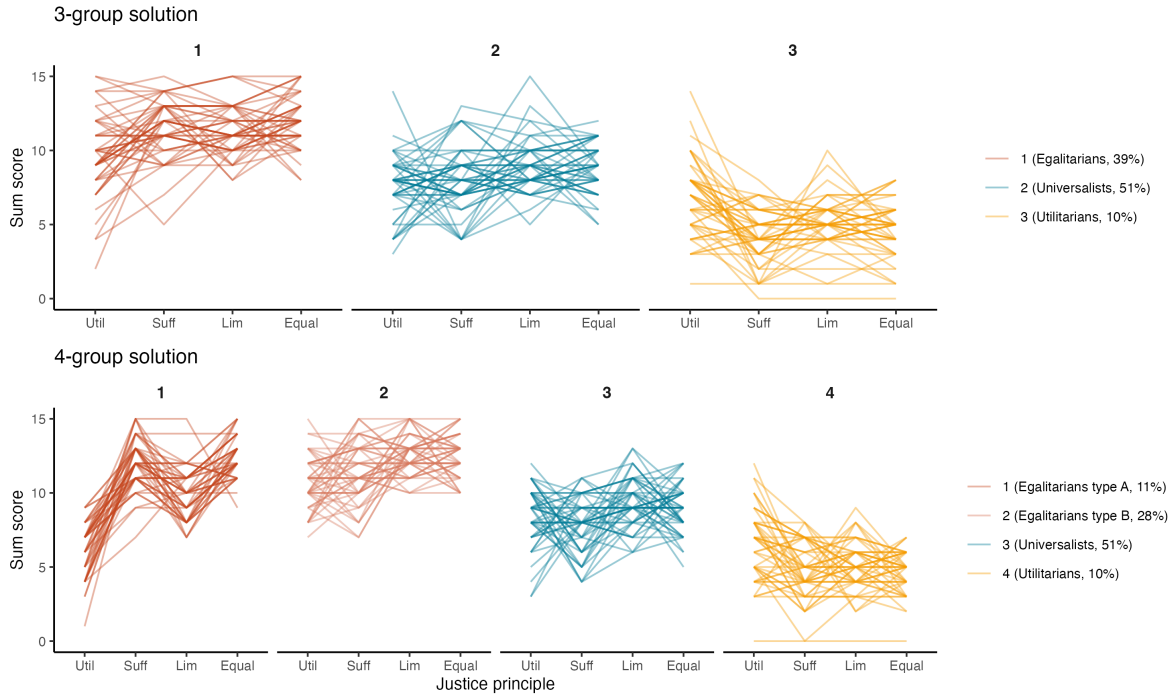


Figure S6: Comparison of the three- and four-group solutions for climate justice orientation. Random subsamples (n = 50) are displayed for each group to illustrate profiles of individuals. The egalitarian group in the three-group solution is separated into two smaller groups, with type A showing a clearly lower scores for the utilitarian principle than type B egalitarians. The universalist and utilitarian profiles in the four-group solution are comparable to those in the three-group solution. Util = unconstrained outcomes, Suff = sufficiency limit, Lim = Upper limit, Equal = Equal outcomes. Related to Figures 1 and S1.

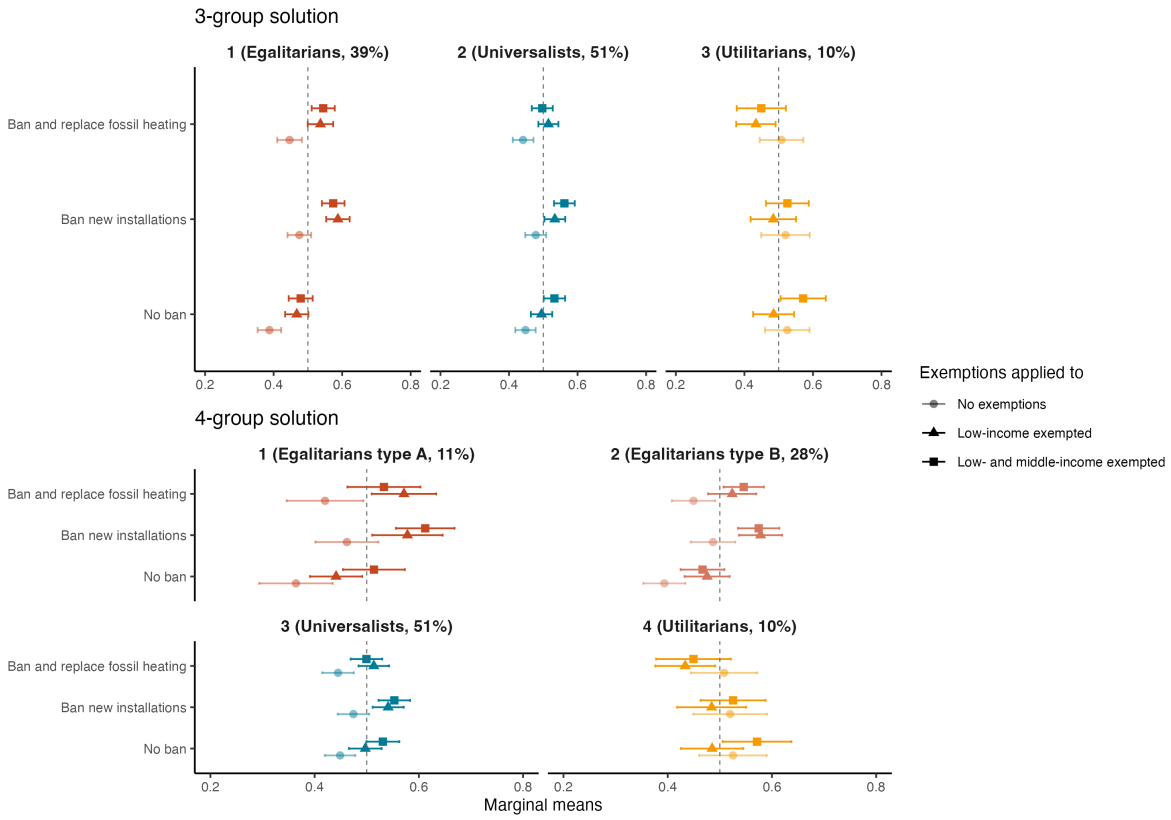


Figure S7: Comparison of the three- and four-group solutions, applying the climate justice orientation on preferences of exemptions to fossil heating bans. The preferences of the universalists and utilitarians are the same in both solutions. The preferences of the two types of egalitarians in the four-group solution are similar to one another and resemble the preferences of the egalitarians in the three-group solution. Related to Figure 3.

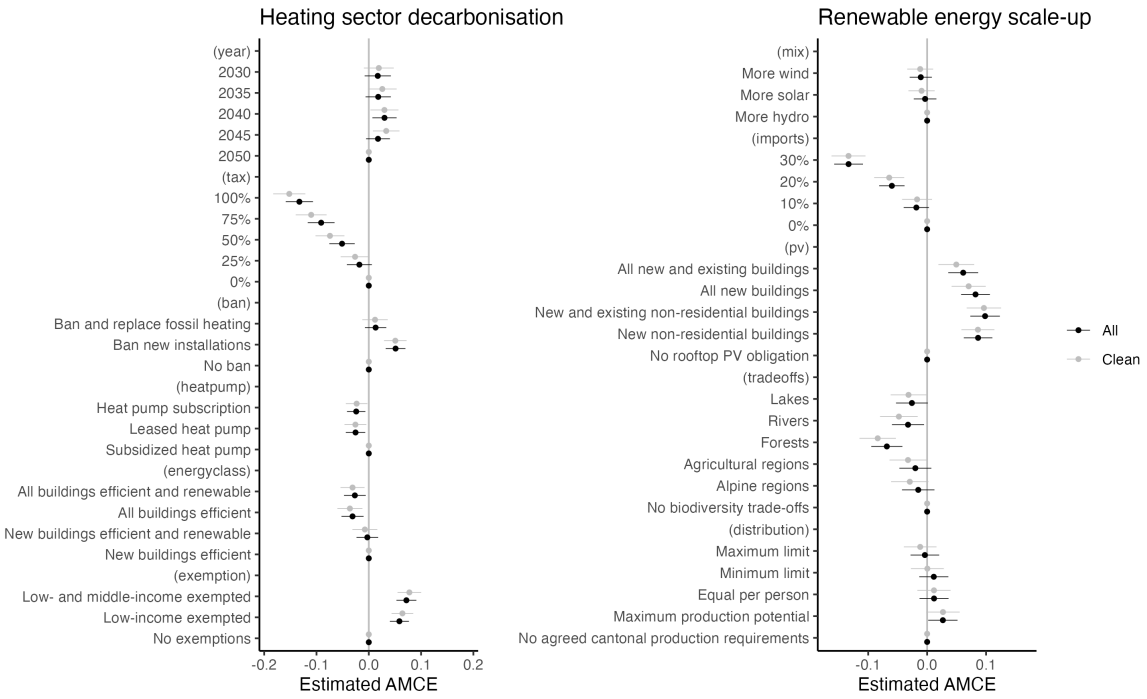


Figure S8: Robustness check for inconsistent data, showing the average marginal component effects (AMCEs) for all attributes in both experiments with all data and clean data. Clean data refers to a subset of the dataset where respondents with observations where the chosen package was rated lower than the non-chosen package were removed.

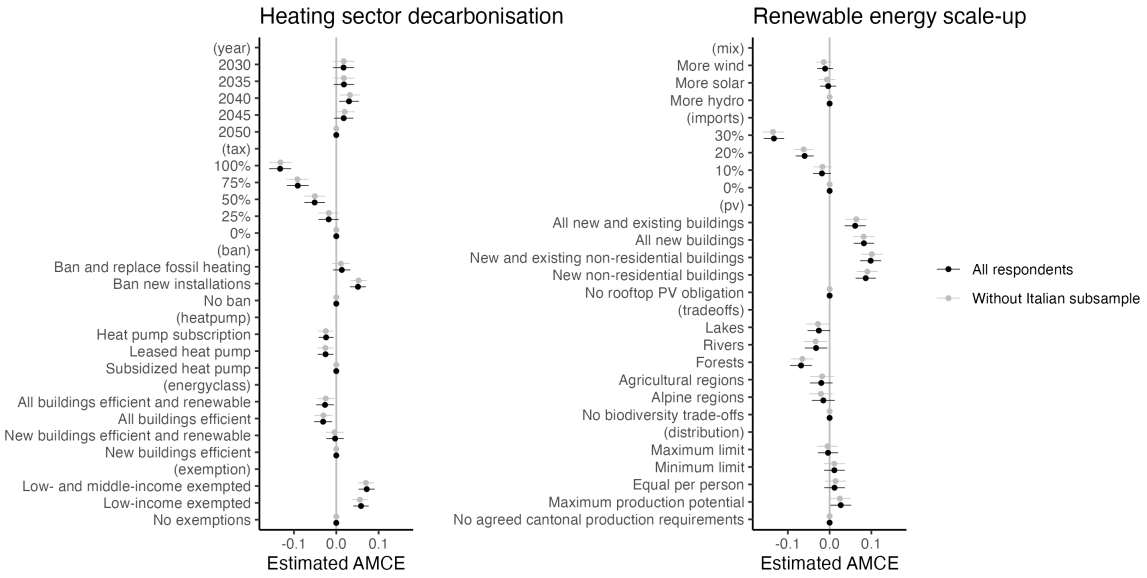


Figure S9: Testing the effects of the sample by comparing the results of all respondents to the results excluding the respondents from the Italian-speaking region. Average marginal component effects (AMCEs) are shown for these samples, with no significant effects between the two samples.

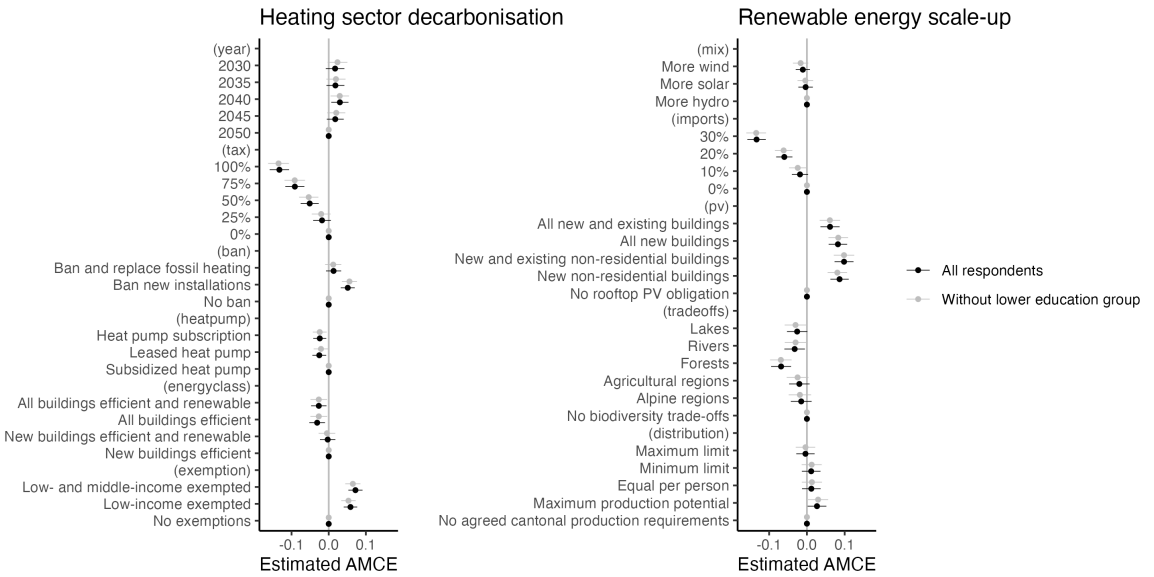


Figure S10: Testing the effects of the sample by comparing the results of all respondents to the results excluding the respondents with lower education levels. Average marginal component effects (AMCEs) are shown for these samples, with no significant effects between the two samples.

	Statement	**Principle**
Set 1. General approach to the transition: The energy transition is fair if ...		
	The total costs are minimised	Utilitarianism
	Existing inequalities are reduced	Equal outcomes
	Everybody is guaranteed a minimum standard of living	Sufficientarianism
	Nobody receives disproportionately many benefits	Limitarianism
Set 2. Distributing policy costs: A carbon tax is fair if ...		
	A moderate tax rate is applied to all goods	Utilitarianism
	The lowest tax rate is applied to basic goods and the highest to luxury goods	Equal outcomes
	A moderate tax rate is applied to all goods except for basic goods	Sufficientarianism
	A high tax rate is applied to luxury goods, other goods are not taxed	Limitarianism
Set 3. Distributing policy benefits: A subsidy is fair if ...		
	A fixed sum is offered to everyone, regardless of their income	Utilitarianism
	Buyers with lower incomes receive a higher sum than buyers with higher incomes	Equal outcomes
	A fixed sum is offered to everyone, and low-income households receive additional financing	Sufficientarianism
	A fixed sum is offered to everyone except for households with a high income	Limitarianism

Table S1: Climate justice orientation scale. Each distributional justice principle was assessed through three statements representing different mitigation contexts.

Type	**Description**	**ICC**	**p-value**	**95% CI**
ICC1	Single raters absolute	0.430	<0.001	[0.41, 0.45]
ICC2	Single random raters	0.435	<0.001	[0.40, 0.47]
ICC3	Single fixed raters	0.454	<0.001	[0.43, 0.48]
ICC1k	Average raters absolute	0.751	<0.001	[0.73, 0.77]
ICC2k	Average random raters	0.755	<0.001	[0.73, 0.78]
ICC3k	Average fixed raters	0.769	<0.001	[0.75, 0.79]

Table S2: Intraclass correlation coefficients (ICC) for within-respondent consistency by justice principle, confirming that as a set, the three items per principle form a coherent scale. ICC1 to ICC3 measure consistency across single responses, treating the raters, in this case the principle, either as fixed or random effects. ICC1k to ICC3k measure consistency across the three responses for each principle, treating principles as either fixed or random effects. High values for ICC1k to ICC3k indicate a composite index across individual items for each principle is justified.

Attribute	Attribute level	Stringency	Instrument type
Phase out year of fossil thermal fuels	2050		Regulatory
	2045		Regulatory
	2040		Regulatory
	2035		Regulatory
	2030		Regulatory
Tax increase on fossil thermal fuels	0%	Low	Regulatory
	25%	Medium	Market-based
	50%	High	Market-based
	75%	High	Market-based
	100%	High	Market-based
Ban on fossil boilers	No ban on boiler installations	Low	Market-based
	Ban on boiler installations	Medium	Regulatory
	Ban on boiler installations and mandatory replacement of existing boilers	High	Regulatory
Heat pump acquisition through a	Subsidy		
	Governmental loan		
	Subscription service		
Standards for energy efficient buildings	New buildings must be energy efficient		Regulatory
	New buildings must be energy efficient and produce renewable electricity on-site		Regulatory
	All buildings need to be energy efficient		Regulatory
	All buildings need to be energy efficient and produce on-site renewable electricity		Regulatory
Exemptions	No exemptions		Redistributive
	Low-income households are exempted		Redistributive
	Low- and middle-income households are exempted		Redistributive

Table S3: The attribute table for the experiment on heating sector decarbonisation. All combinations of attribute levels were allowed as per a full random design. Stringency and instrument type relate to Figures 2 and 4.

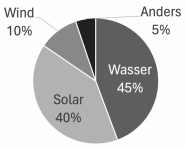
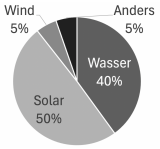
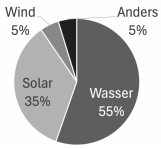
Attribute	Attribute level	Stringency	Instrument type	Electricity Act
Target electricity mix				Yes
				Yes
				
Net imports	0% 10% 20% 30%			Yes
Obligatory rooftop solar	No obligation	Low	Market-based	
	New public and commercial buildings	Medium	Regulatory	Yes
	New and existing public and commercial buildings	High	Regulatory	
	All new buildings	Medium	Regulatory	
	All new and existing buildings	High	Regulatory	
Permit renewable electricity in/on	No exceptions		Regulatory	Yes
	Alpine areas		Market-based	Yes
	Agriculture areas		Market-based	
	Forests		Market-based	
	Rivers		Market-based	
	Lakes		Market-based	
Cantonal distribution	No agreed distribution		Market-based	
	Based on how much a canton can produce		Redistributive	
	Based on how many people live in each canton		Redistributive	
	Based on an agreed minimum production level		Redistributive	
	No canton produces disproportionately much		Redistributive	

Table S4: The attribute table for the experiment on scaling up renewable energy production. All combinations of attribute levels were allowed as per a full random design. Stringency and instrument type relate to Figures 2 and 4. The attributes levels with Yes for Electricity Act were used to identify packages most similar to the Electricity Act as part of external validation of results.

No. profiles	BIC	AIC	Entropy	Minimum probability	Maximum probability	Smallest group
1	37,730	37,680	1.00	1.00	1.00	100%
2	36,112	36,040	0.742	0.889	0.943	36.4%
3	35,410	35,310	0.790	0.882	0.908	9.8%
4	35,320	35,200	0.736	0.562	0.926	9.8%
5	35,120	34,960	0.737	0.636	0.906	5.8%
6	35,060	34,880	0.756	0.577	0.915	2.2%
7	35,030	34,810	0.718	0.605	0.907	2.3%
8	35,060	34,820	0.631	0.362	0.899	2.2%

Table S5: Fit indices and model characteristics for latent profile analysis for models with one to eight profiles. BIC – Bayesian information criterion, AIC – Akaike information criterion.

Outcome variable	Definition	Packages	*n*	MM	*p*	Support %
Rating	Target mix	Electricity Act	509	0.32 [0.17; 0.46]	<0.001	62%
		Other	15,174	0.20[0.13; 0.26]	<0.001	
	Tradeoffs	Electricity Act	119	0.24 [-0.04; 0.51]	0.099	59%
		Other	15,561	0.20 [0.14; 0.26]	<0.001	
Choice	Target mix	Electricity Act	509	0.54 [0.49; 0.58]	<0.001	
		Other	15,174	0.50 [0.50; 0.50]	<0.001	
	Tradeoffs	Electricity Act	119	0.52 [0.43; 0.60]	<0.001	
		Other	15,561	0.50 [0.50; 0.50]	<0.001	

Table S6: External validation of the conjoint analysis results. Marginal means (MM) with 95% confidence intervals for the combinations of packages resembling the Swiss renewable electricity act for both rating and choice outcomes. For rating data, 0 represents neutral sentiments with positive numbers representing support. Support percentage reflects the percentage of packages rated with Somewhat support, Support, or Completely support for the rating outcome, or the percentage of packages that were chosen for the choice outcome. All three outcomes, marginal means for rating data, marginal means for choice data, and the support percentages, show that the packages resembling the Electricity Act were overall supported.