

Supplementary Materials

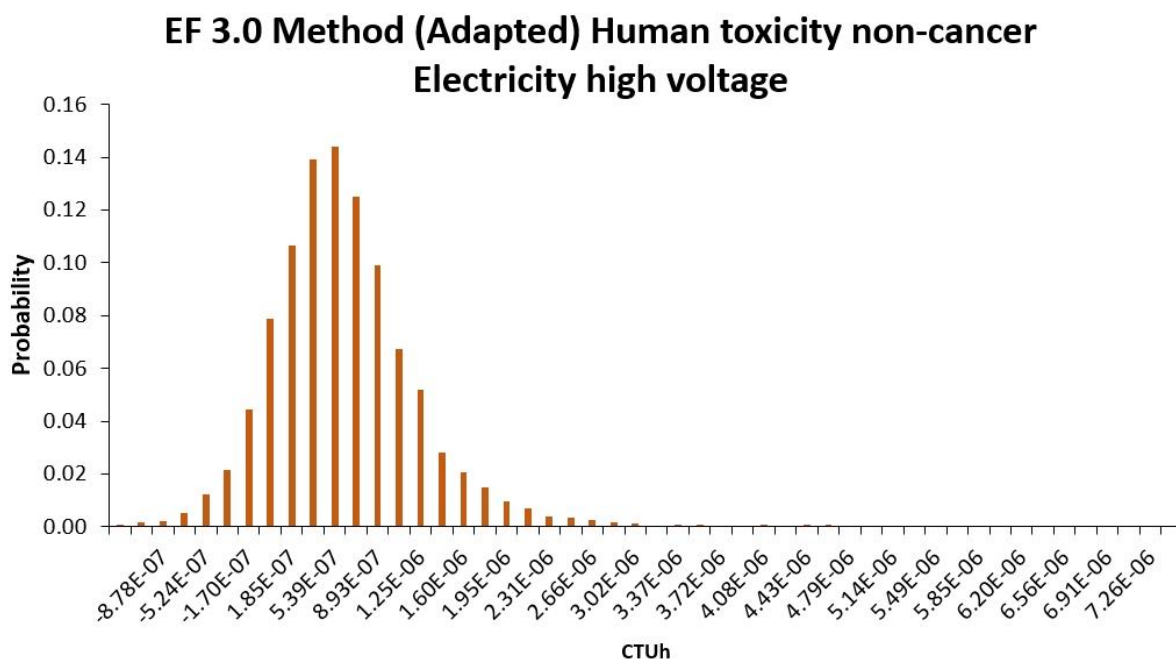


Figure S1. Monte Carlo analysis of EF 3.0 Method (Adapted) using Electricity high voltage in the case of human toxicity non-cancer effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
6.31E-07	5.58E-07	6.9E-07	109.3891	-4E-07	2.07E-06	6.9E-09

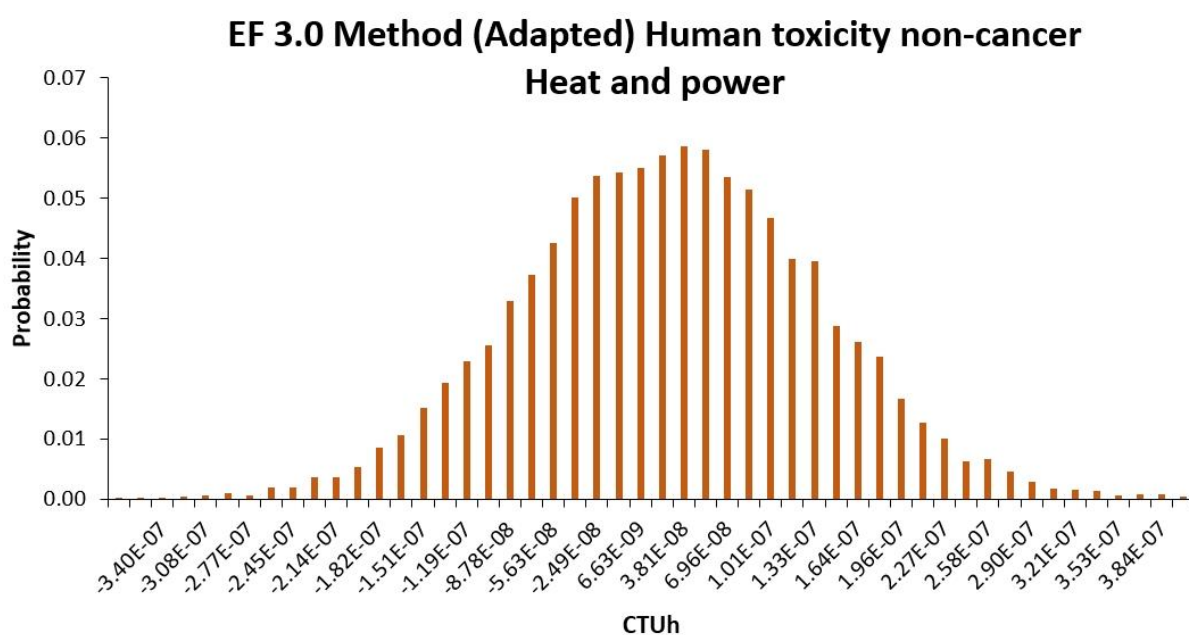


Figure S2. Monte Carlo analysis of EF 3.0 Method (Adapted) using Heat and power in the case of human toxicity non-cancer effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
2.84E-08	2.89E-08	1.09E-07	381.5739	-1.8E-07	2.42E-07	1.09E-09

EF 3.0 Method (Adapted) Climate Change

Nuclear energy

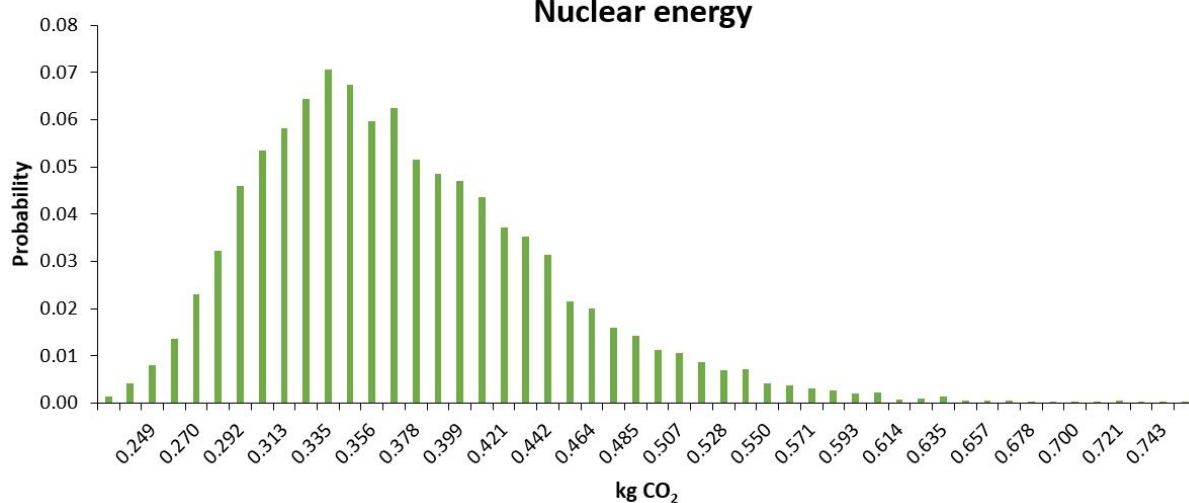


Figure S3. Monte Carlo analysis of EF 3.0 Method (Adapted) using Nuclear energy in the case of climate change effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
0.372635	0.361281	0.073063	19.60708	0.263799	0.543332	0.000731

EF 3.0 Method (Adapted) Acidification

Nuclear energy

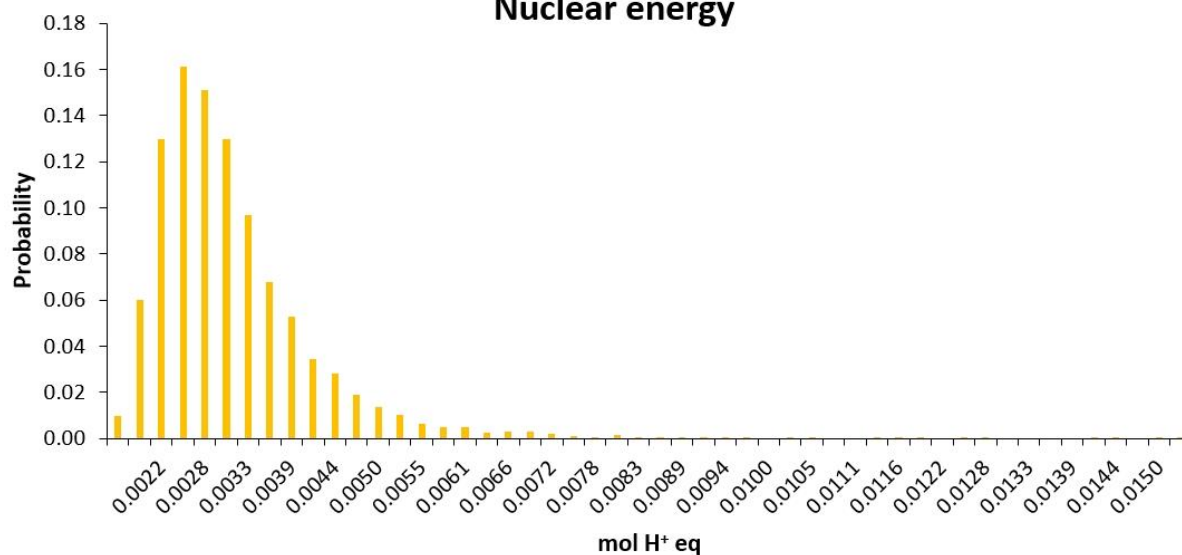


Figure S4. Monte Carlo analysis of EF 3.0 Method (Adapted) using Nuclear energy in the case of acidification effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
0.003116	0.00287	0.001129	36.24636	0.001884	0.00589	1.13E-05

EF 3.0 Method (Adapted) Eutrophication freshwater Nuclear energy

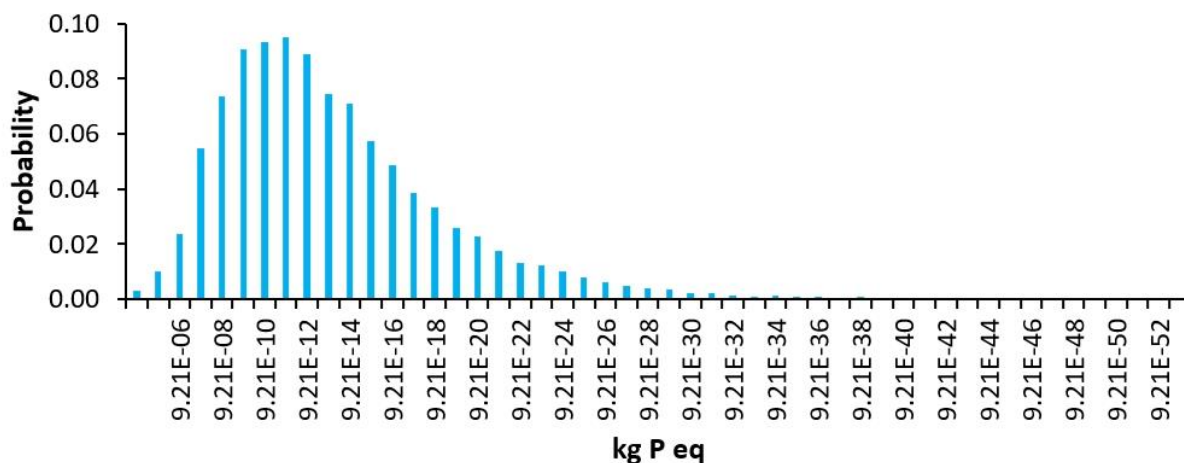


Figure S5. Monte Carlo analysis of EF 3.0 Method (Adapted) using Nuclear energy in the case of eutrophication freshwater effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
0.000236	0.000216	9.68E-05	41.06955	0.000111	0.000473	9.68E-07

EF 3.0 Method (Adapted) Human toxicity cancer Nuclear energy

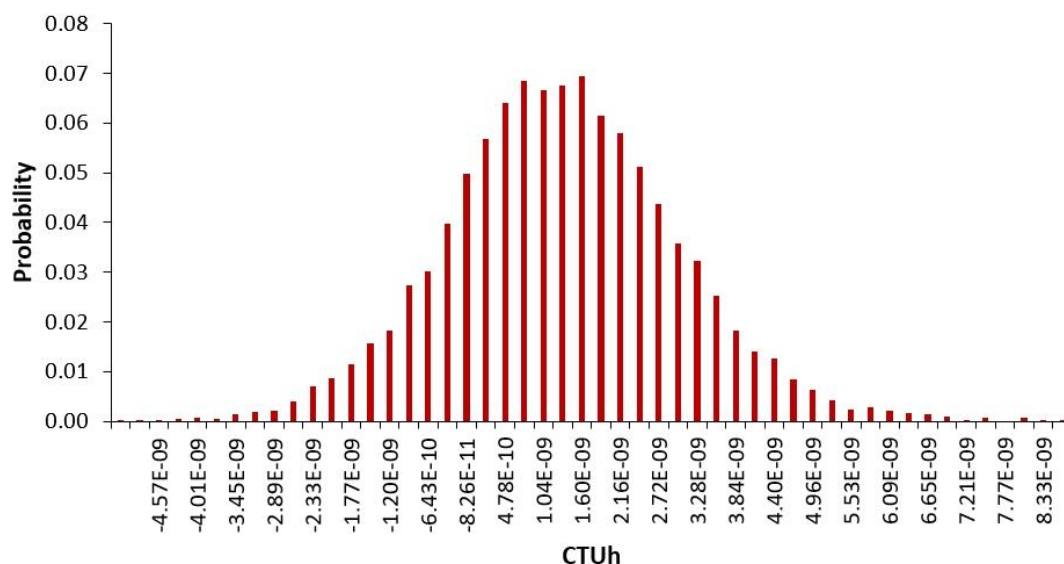


Figure S6. Monte Carlo analysis of EF 3.0 Method (Adapted) using Nuclear energy in the case of human toxicity cancer effect

Median	Mean	SD	CV	2.5%	97.5%	SEM
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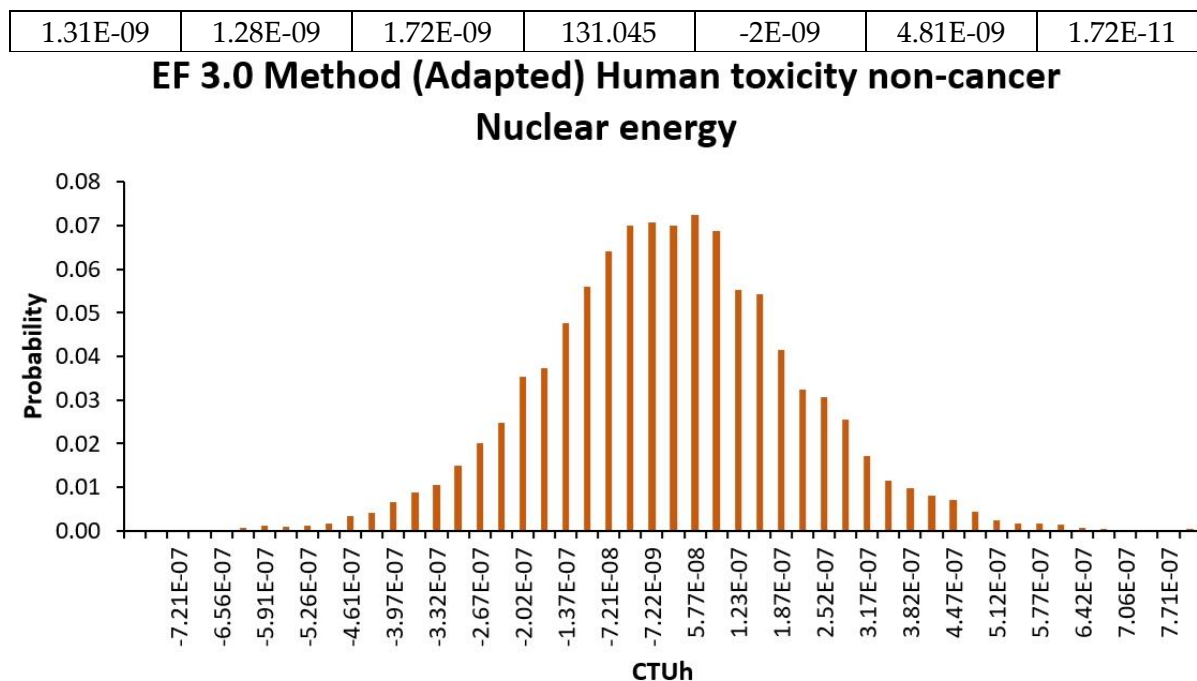


Figure S7. Monte Carlo analysis of EF 3.0 Method (Adapted) using Nuclear energy in the case of human toxicity non-cancer effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
1.91E-08	1.76E-08	1.94E-07	1012.084	-3.7E-07	4.13E-07	1.94E-09

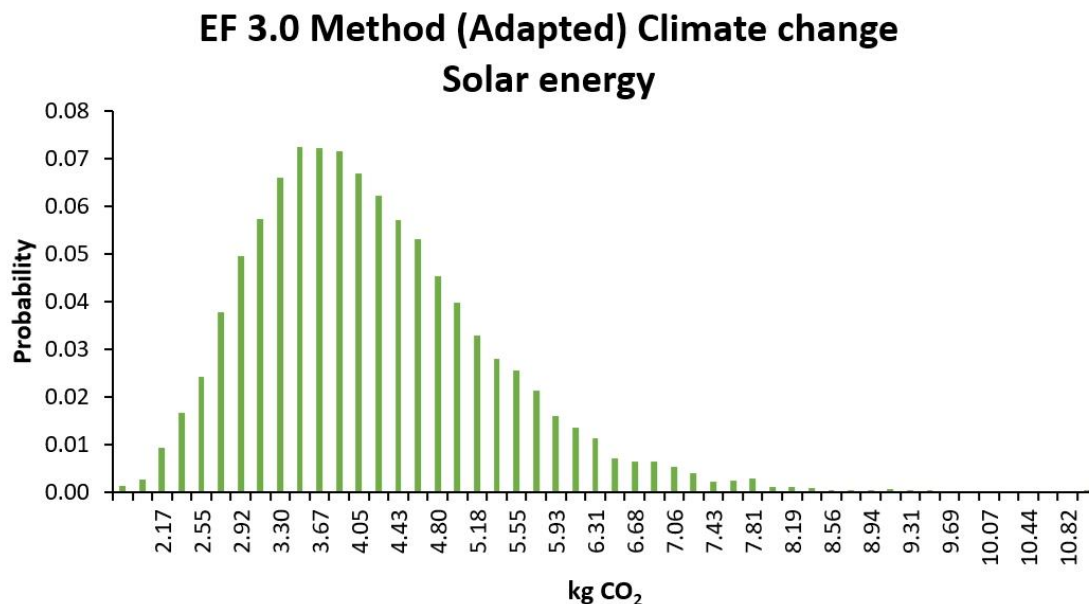


Figure S8. Monte Carlo analysis of EF 3.0 Method (Adapted) using Solar energy in the case of climate change effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
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4.18494	4.009808	1.181806	28.23949	2.399553	6.977792	0.011818
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EF 3.0 Method (Adapted) Acidification

Solar energy

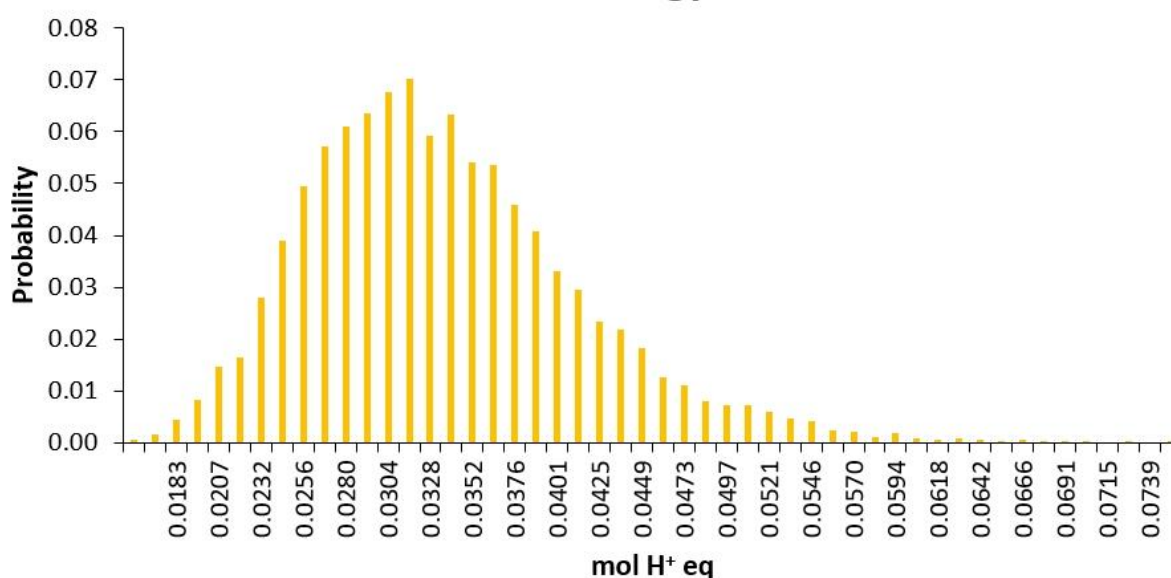


Figure S9. Monte Carlo analysis of EF 3.0 Method (Adapted) using Solar energy in the case of acidification effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
0.033606	0.032531	0.007934	23.60978	0.021025	0.052208	7.93E-05

EF 3.0 Method (Adapted) Eutrophication

freshwater

Solar energy

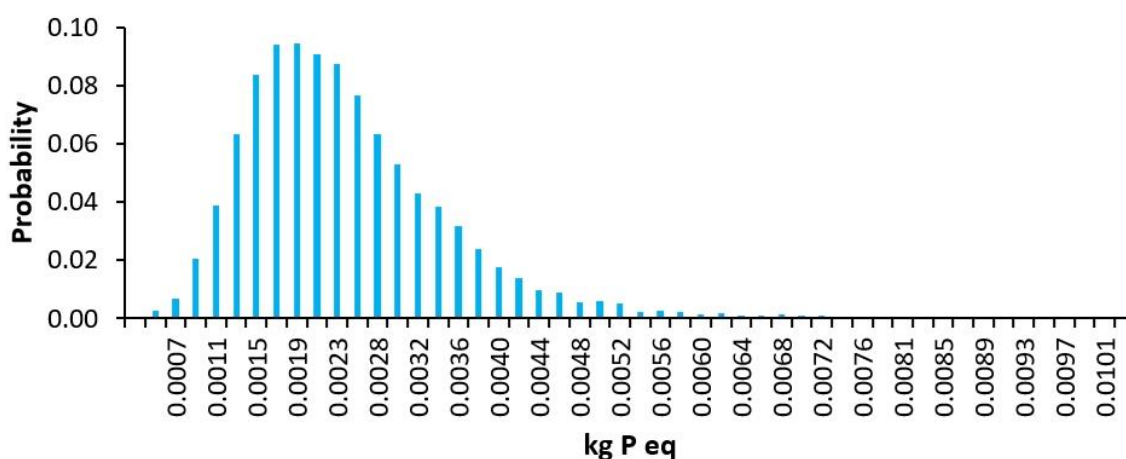


Figure S10. Monte Carlo analysis of EF 3.0 Method (Adapted) using Solar energy in the case of eutrophication freshwater effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
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0.002448	0.00225	0.0011	44.93348	0.00097	0.005113	1.1E-05
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EF 3.0 Method (Adapted) Human toxicity cancer

Solar energy

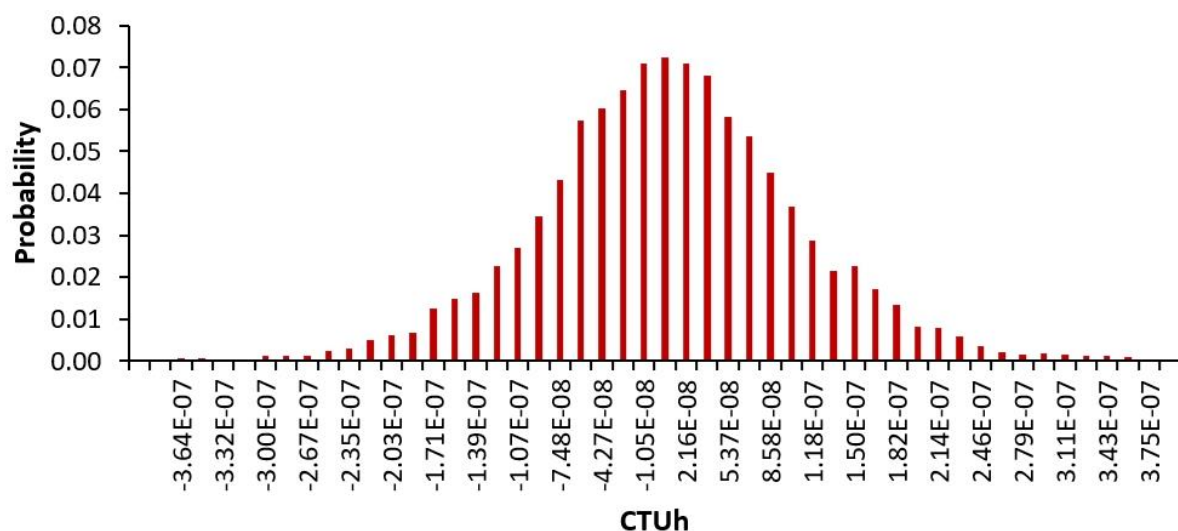


Figure S11. Monte Carlo analysis of EF 3.0 Method (Adapted) using Solar energy in the case of human toxicity cancer effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
8.94E-09	7.77E-09	1E-07	1122.962	-1.9E-07	2.14E-07	1E-09

EF 3.0 Method (Adapted) Human toxicity non-

cancer

Solar energy

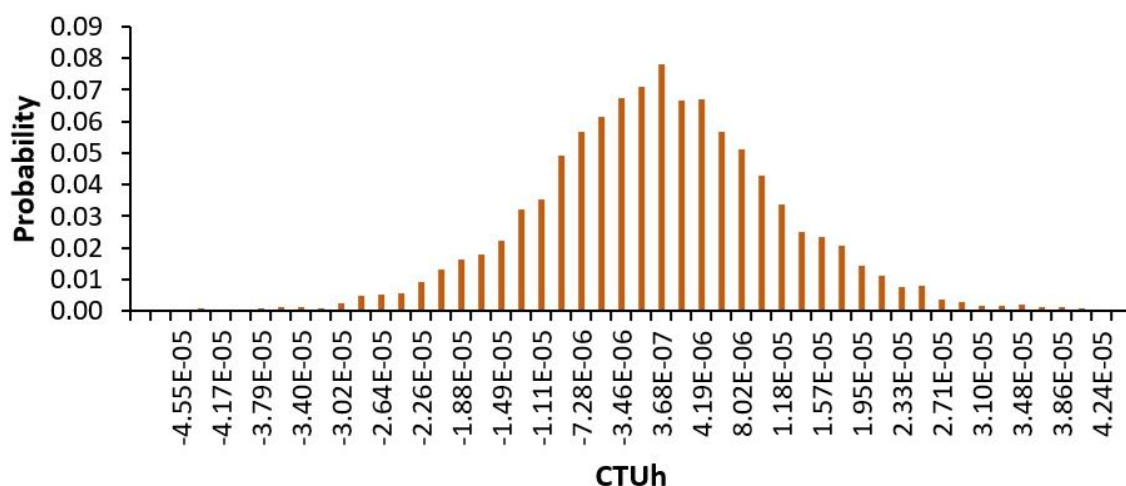


Figure S12. Monte Carlo analysis of EF 3.0 Method (Adapted) using Solar energy in the case of human toxicity non-cancer effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
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3.84E-08	-5.1E-09	1.19E-05	30898.63	-2.4E-05	2.4E-05	1.19E-07
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EF 3.0 Method (Adapted) Climate change Wind energy offshore

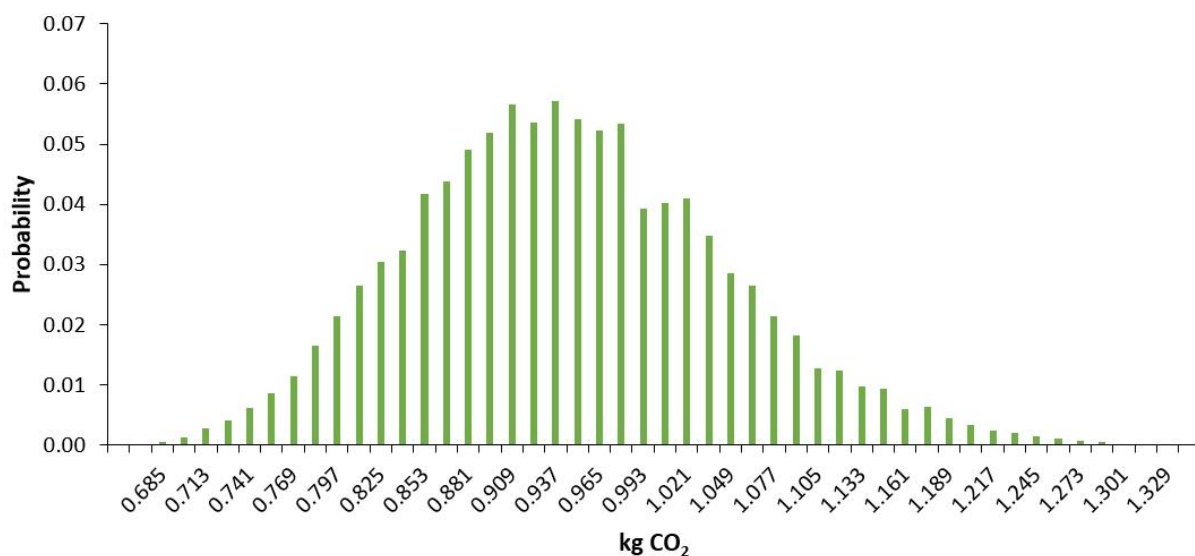


Figure S13. Monte Carlo analysis of EF 3.0 Method (Adapted) using Wind energy offshore in the case of climate change effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
0.945699	0.939828	0.102129	10.79932	0.76226	1.166071	0.001021

EF 3.0 Method (Adapted) Acidification Wind energy offshore

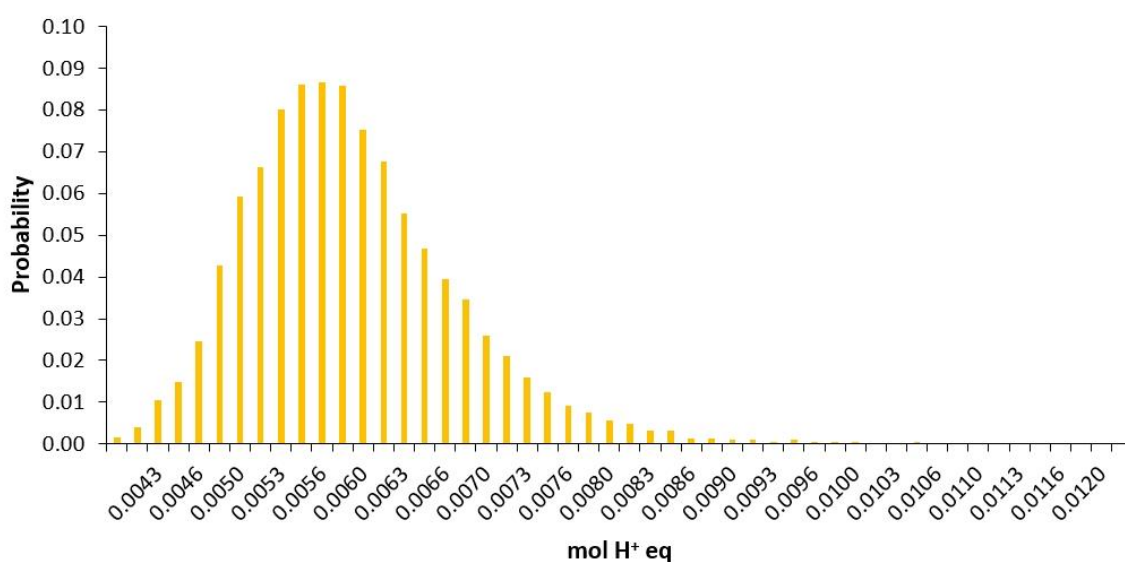


Figure S14. Monte Carlo analysis of EF 3.0 Method (Adapted) using Wind energy offshore in the case of acidification effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
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0.005885	0.005768	0.000882	14.98572	0.004517	0.007916	8.82E-06
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EF 3.0 Method (Adapted) Eutrophication freshwater Wind energy offshore

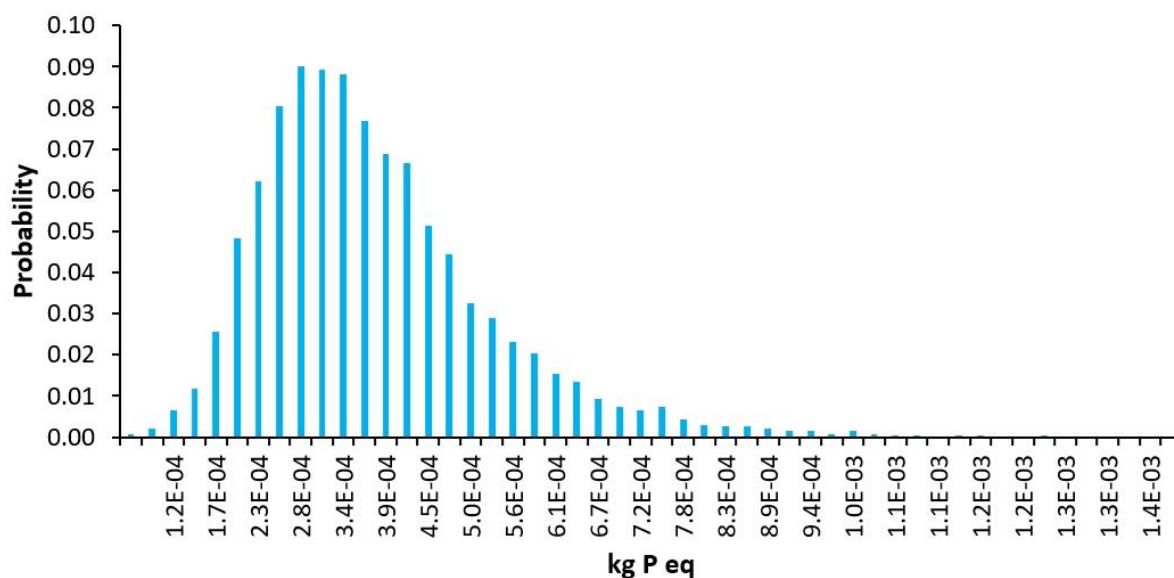


Figure S15. Monte Carlo analysis of EF 3.0 Method (Adapted) using Wind energy offshore in the case of freshwater eutrophication effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
0.000378	0.00035	0.000153	40.42392	0.000164	0.000753	1.53E-06

EF 3.0 Method (Adapted) Human toxicity cancer Wind energy offshore

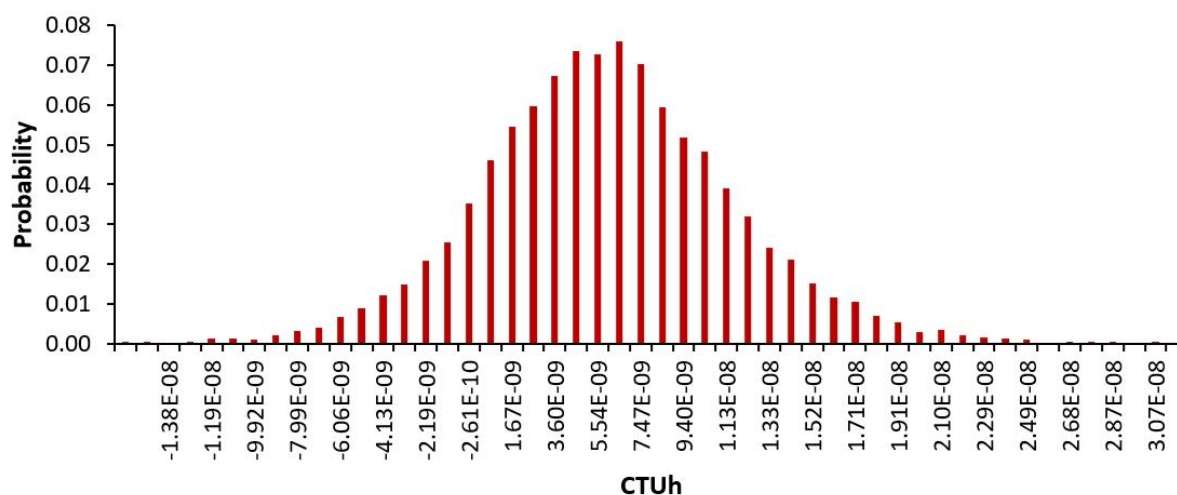


Figure S16. Monte Carlo analysis of EF 3.0 Method (Adapted) using Wind energy offshore in the case of human toxicity cancer effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
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6E-09	5.82E-09	5.8E-09	96.66303	-5.2E-09	1.8E-08	5.8E-11
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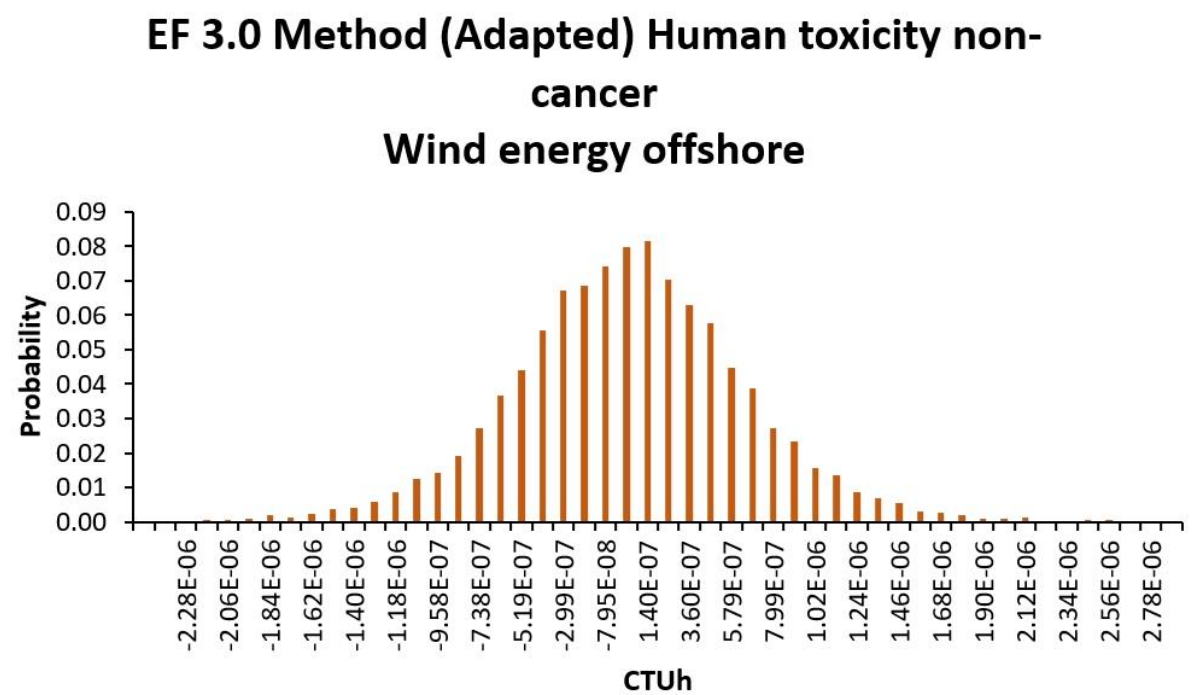


Figure S17. Monte Carlo analysis of EF 3.0 Method (Adapted) using Wind energy offshore in the case of human toxicity non-cancer effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
4.51E-08	4.46E-08	6.24E-07	1385.35	-1.2E-06	1.3E-06	6.24E-09

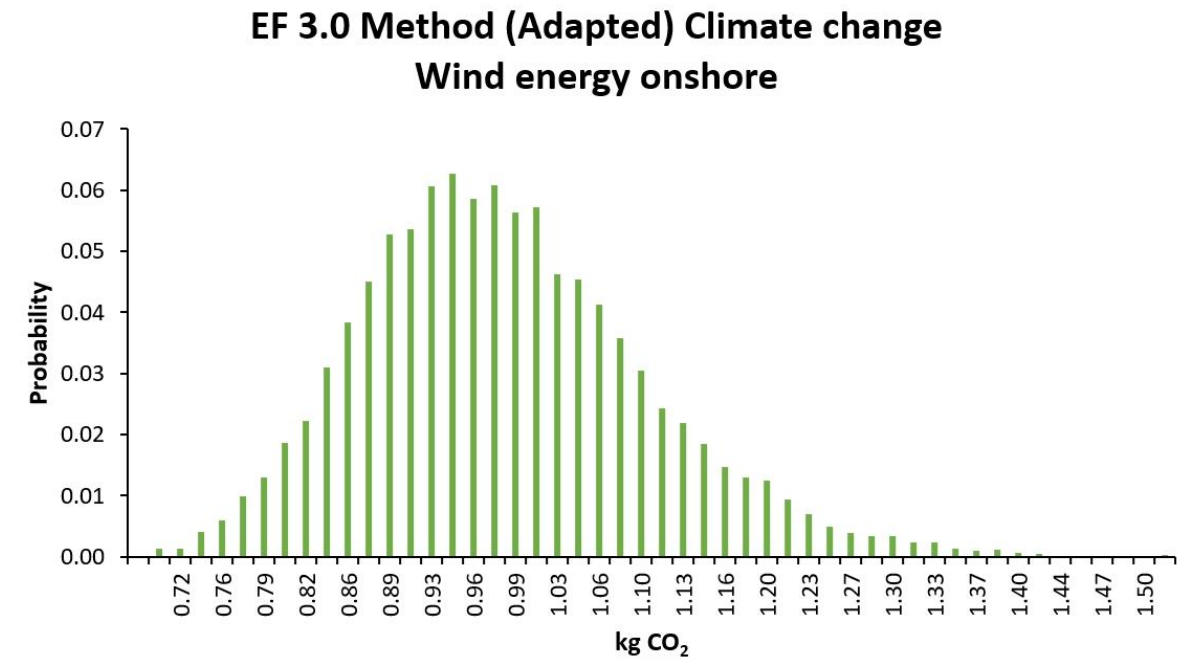


Figure S18. Monte Carlo analysis of EF 3.0 Method (Adapted) using Wind energy onshore in the case of climate change effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
0.985267	0.97403	0.117102	11.88528	0.784168	1.244909	0.001171

EF 3.0 Method (Adapted) Acidification
Wind energy onshore

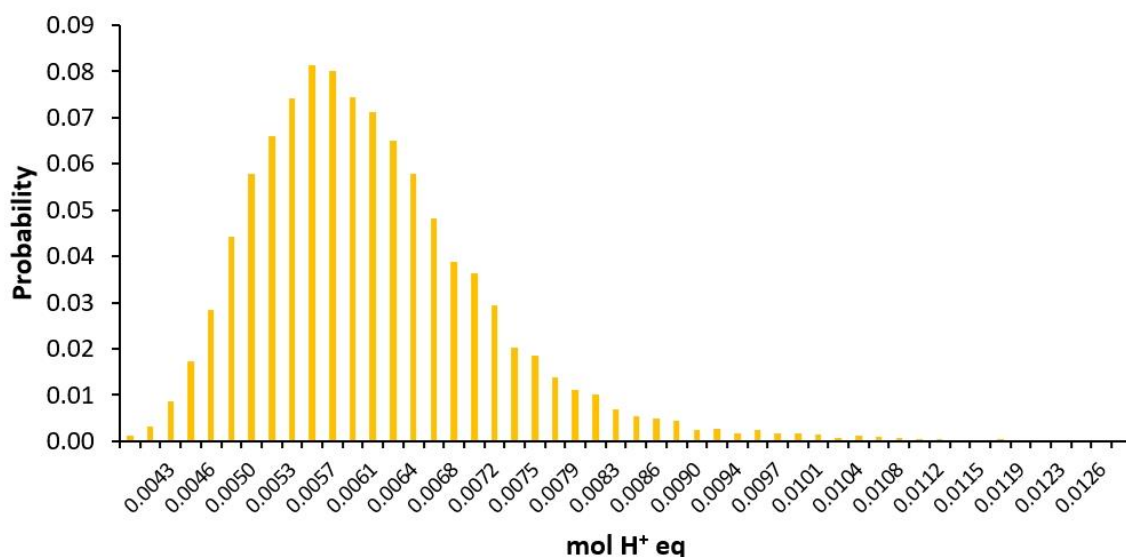


Figure S19. Monte Carlo analysis of EF 3.0 Method (Adapted) using Wind energy onshore in the case of acidification effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
0.006063	0.005891	0.001099	18.13039	0.004467	0.008725	1.1E-05

EF 3.0 Method (Adapted) Eutrophication
freshwater
Wind energy onshore

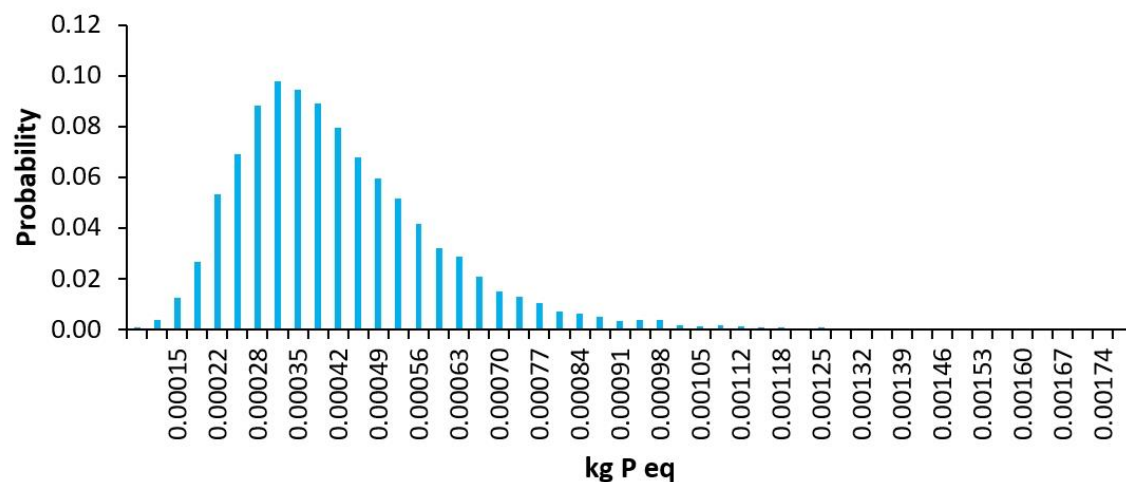


Figure S20. Monte Carlo analysis of EF 3.0 Method (Adapted) using Wind energy onshore in the case of eutrophication freshwater effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
0.000426	0.000391	0.000185	43.36149	0.000177	0.000878	1.85E-06

EF 3.0 Method (Adapted) Human toxicity cancer
Wind energy onshore

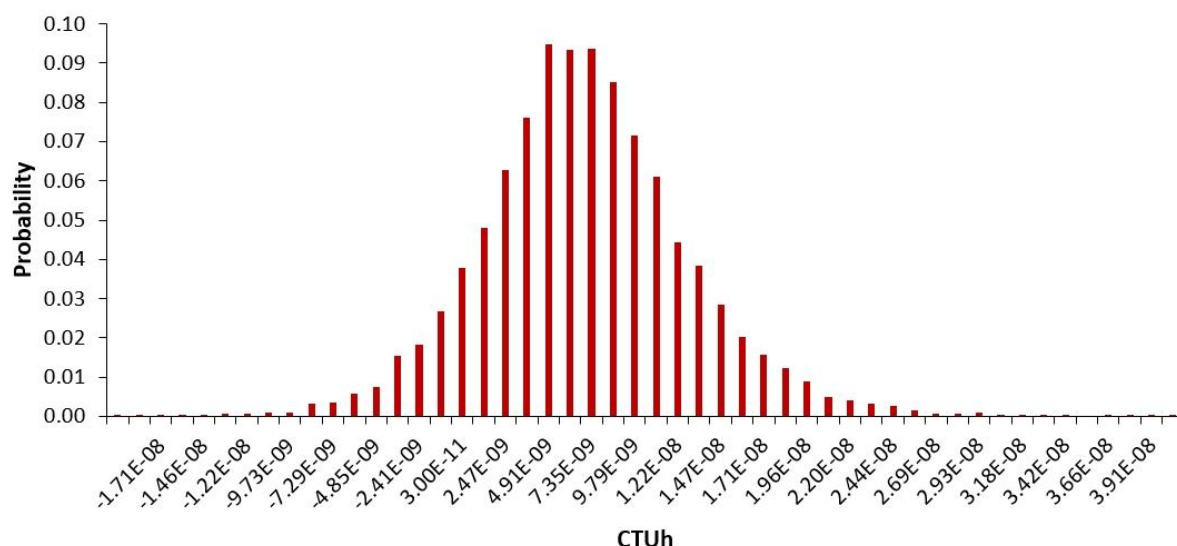


Figure S21. Monte Carlo analysis of EF 3.0 Method (Adapted) using Wind energy onshore in the case of human toxicity cancer effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
7E-09	6.77E-09	6.08E-09	86.94078	-4.4E-09	1.98E-08	6.08E-11

EF 3.0 Method (Adapted) Human toxicity non-cancer
Wind energy onshore

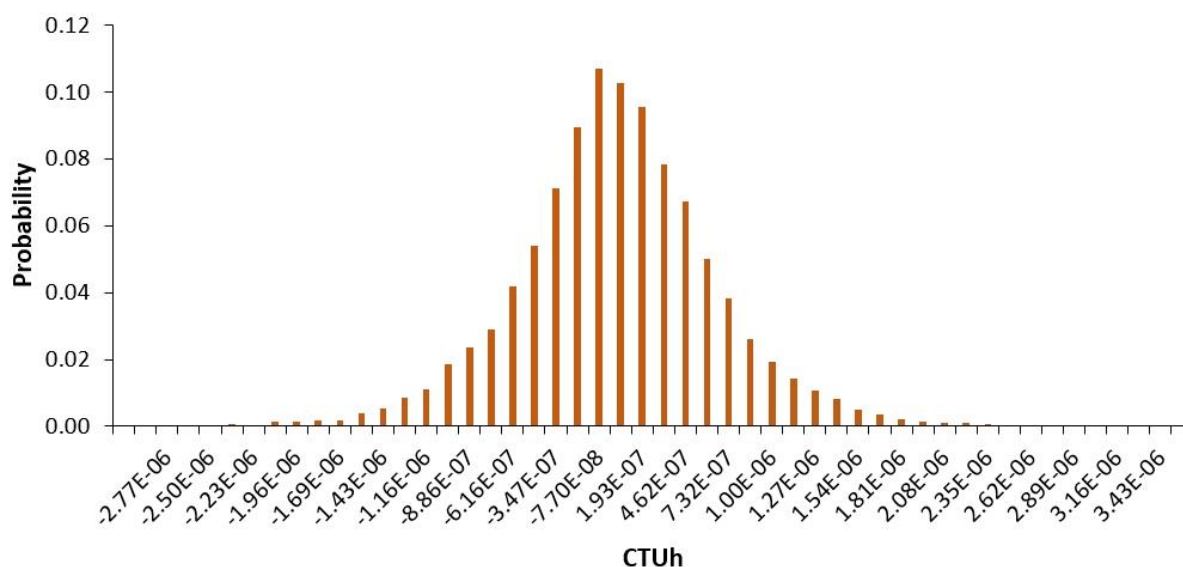


Figure S22. Monte Carlo analysis of EF 3.0 Method (Adapted) using Wind energy onshore in the case of human toxicity non-cancer effect

Mean	Median	SD	CV	2.5%	97.5%	SEM
3.52E-08	2.7E-08	6.42E-07	1821.899	-1.2E-06	1.35E-06	6.42E-09