

Table S11. Efficiency changes of ICEVs TWW influenced by WTT

Province	a=0	a=1	a=2	a=3	a=4	a=5	a=6	a=7	a=8	a=9	a=10
Beijing	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	#	0.197	0.197
Tianjin	0.856	0.849	0.842	0.836	0.829	0.822	0.816	0.809	#	0.796	0.789
Hebei	0.767	0.767	0.767	0.767	0.767	0.767	0.767	0.767	#	0.767	0.767
Shanxi	0.909	0.909	0.909	0.909	0.909	0.909	0.909	0.909	#	0.909	0.909
Inner Mongolia	0.679	0.679	0.679	0.679	0.679	0.679	0.679	0.679	#	0.679	0.679
Liaoning	0.871	0.871	0.871	0.871	0.871	0.871	0.871	0.871	#	0.871	0.871
Jilin	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	#	0.701	0.701
Heilongjiang	0.609	0.595	0.581	0.567	0.553	0.539	0.525	0.511	#	0.488	0.481
Shanghai	0.352	49.984	100.320	150.656	200.992	251.327	301.663	351.999	#	452.671	503.007
Jiangsu	0.610	0.610	0.610	0.610	0.610	0.610	0.610	0.610	#	0.610	0.610
Zhejiang	0.369	0.369	0.369	0.369	0.369	0.369	0.369	0.369	#	0.369	0.369
Anhui	0.817	0.817	0.817	0.817	0.817	0.817	0.817	0.817	#	0.817	0.817
Fujian	0.423	0.423	0.423	0.423	0.423	0.423	0.423	0.423	#	0.423	0.423
Jiangxi	0.690	0.000	0.000	0.000	0.000	0.000	0.000	0.000	#	0.000	0.000
Shandong	0.880	0.880	0.880	0.880	0.880	0.880	0.880	0.880	#	0.880	0.880
Henan	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	#	1.000	1.000
Hubei	0.539	0.532	0.525	0.519	0.512	0.506	0.499	0.499	#	0.486	0.480
Hunan	0.672	0.672	0.672	0.672	0.672	0.672	0.672	0.672	#	0.672	0.672
Guangdong	0.597	0.595	0.593	0.591	0.590	0.588	0.586	0.584	#	0.580	0.579
Guangxi	0.636	0.636	0.636	0.636	0.636	0.636	0.636	0.636	#	0.636	0.636



[illegible]

Table S13. Efficiency changes of PHEVs TWW influenced by WTT

Province	a=0	a=1	a=2	a=3	a=4	a=5	a=6	a=7	a=8	a=9	a=10
Beijing	0.36	0.366	0.366	0.366	0.366	0.366	0.366	0.366	0.366	0.366	0.366
Tianjin	0.85	0.849	0.842	0.836	0.829	0.822	0.816	0.809	0.803	0.796	0.789
Hebei	0.72	0.723	0.723	0.723	0.723	0.723	0.723	0.723	0.723	0.723	0.723
Shanxi	0.76	0.767	0.767	0.767	0.767	0.767	0.767	0.767	0.767	0.767	0.767
Inner Mongolia	0.94	0.948	0.948	0.948	0.948	0.948	0.948	0.948	0.948	0.948	0.948
Liaoning	0.90	0.906	0.906	0.906	0.906	0.906	0.906	0.906	0.906	0.906	0.906
Jilin	0.26	0.261	0.261	0.261	0.261	0.261	0.261	0.261	0.261	0.261	0.261
Heilongjiang	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Shanghai	0.35	-	-	-	-	-	-	-	-	-	-
Jiangsu	0.52	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
Zhejiang	0.46	0.469	0.469	0.469	0.469	0.469	0.469	0.469	0.469	0.469	0.469
Anhui	0.81	0.817	0.817	0.817	0.817	0.817	0.817	0.817	0.817	0.817	0.817
Fujian	0.50	0.502	0.502	0.502	0.502	0.502	0.502	0.502	0.502	0.502	0.502
Jiangxi	0.69	0.256	0.157	0.135	0.134	0.132	0.131	0.130	0.129	0.128	0.127
Shandong	0.61	0.615	0.615	0.615	0.615	0.615	0.615	0.615	0.615	0.615	0.615
Henan	1.00	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Hubei	0.56	0.565	0.561	0.556	0.552	0.548	0.543	0.539	0.535	0.531	0.526
Hunan	0.53	0.539	0.539	0.539	0.539	0.539	0.539	0.539	0.539	0.539	0.539
Guangdong	0.66	0.658	0.653	0.648	0.643	0.638	0.633	0.628	0.623	0.618	0.613
Guangxi	0.50	0.504	0.504	0.504	0.504	0.504	0.504	0.504	0.504	0.504	0.504
Hainan	0.34	0.343	0.338	0.332	0.326	0.321	0.315	0.309	0.304	0.298	0.292



[illegible]