

Supplementary Materials

Effect of Climate on Residential Electricity Consumption: An Earth System Perspective

Table S1. Results for the Tibet 2014–2017 data at different scales.

	Name	cv_results std	cv_results mean	Rank
Rural	ScaledLR	138488.0051	-100563.8436	0.08
	ScaledKNN	107168.2185	-108015.513	1.5
	ScaledRF	122184.5864	-113185.2489	2.05
	ScaledET	127081.3634	-114408.0755	2.41
	ScaledGBM	137124.6833	-136447.2812	4.12
	ScaledAB	148973.9897	-144280.8748	4.9
Urban	ScaledCART	163335.5615	-174874.166	5.94
	ScaledSVR	335575.0951	-566568.4476	7
	name	cv_results std	cv_results mean	rank
	ScaledGBM	401691.3852	-343283.5818	0.81
	ScaledET	284607.2402	-352439.2599	1.17
	ScaledAB	235810.2435	-358765.4732	1.2
Total	ScaledRF	449444.8867	-455893.1806	2.99
	ScaledLR	516757.9753	-525190.7948	3.88
	ScaledKNN	599455.3664	-560343.0293	4.96
	ScaledCART	702656.6064	-752505.4807	5.99
	ScaledSVR	2093660.193	-2722139.071	7
	name	cv_results std	cv_results mean	rank
	ScaledGBM	310937.8027	-477368.704	0.38
	ScaledET	374451.5602	-521277.3507	1.67
	ScaledAB	340884.3033	-530583.3939	1.86
	ScaledLR	497152.6423	-551530.9024	2.71
	ScaledRF	420323.1944	-621633.2433	3.46
	ScaledKNN	371507.3102	-824686.9923	5.33
	ScaledCART	613952.0542	-851284.0726	5.59
	ScaledSVR	2708100.827	-5177547.852	7

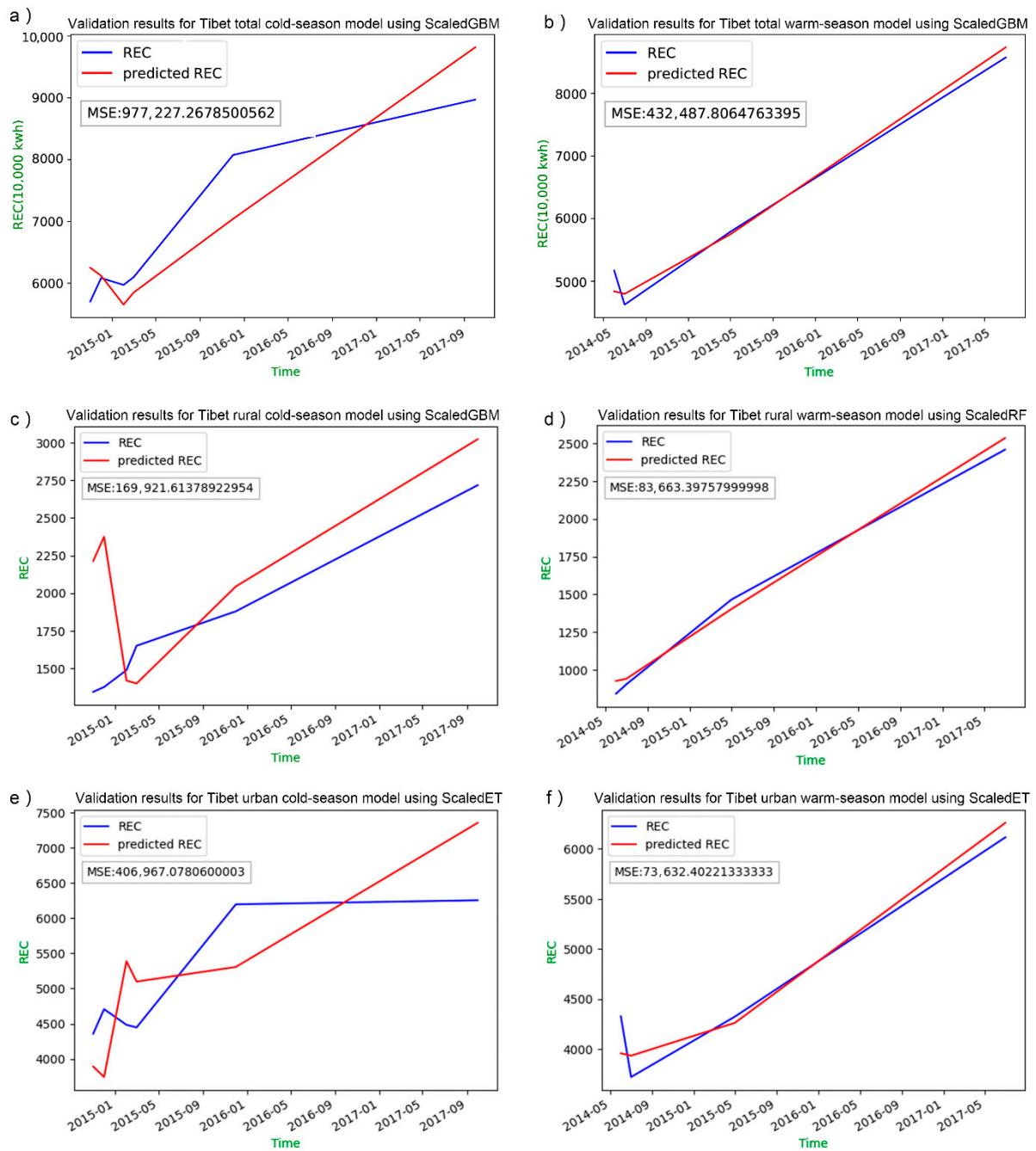


Figure S1. Model validation results. Plots **a** and **b** show the model validation results of Tibet total cold-season and warm-season models respectively. Plots **c** and **d** show the model validation results of Tibet rural cold-season and warm-season models respectively. Plots **e** and **f** show the model validation results of Tibet urban cold-season and warm-season models respectively. MSE, mean squared error.