

Name of Variable = kW_Gen	
Mean of Working Series	0.511078
Standard Deviation	0.179364
Number of Observations	42

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	81.65	6	<.0001	0.709	0.648	0.519	0.460	0.412	0.396

Maximum Likelihood Estimation					
Parameter	Estimate	Standard Error	t Value	Approx Pr > t	Lag
MU	0.52019	0.06309	8.25	<.0001	0
AR1,1	0.70389	0.11038	6.38	<.0001	1

Constant Estimate	0.154036
Variance Estimate	0.016529
Std Error Estimate	0.128564
AIC	-50.4857
SBC	-47.0103
Number of Residuals	42

Correlations of Parameter Estimates		
Parameter	MU	AR1,1
MU	1.000	0.055
AR1,1	0.055	1.000

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	4.04	5	0.5430	-0.187	0.197	0.011	0.070	0.024	0.089
12	7.81	11	0.7301	0.221	0.090	0.009	-0.103	0.023	-0.039
18	13.25	17	0.7193	0.024	0.071	-0.000	-0.103	-0.027	-0.235
24	15.41	23	0.8792	-0.020	-0.010	-0.066	-0.077	0.043	-0.099

Model for variable kW_Gen	
Estimated Mean	0.520193

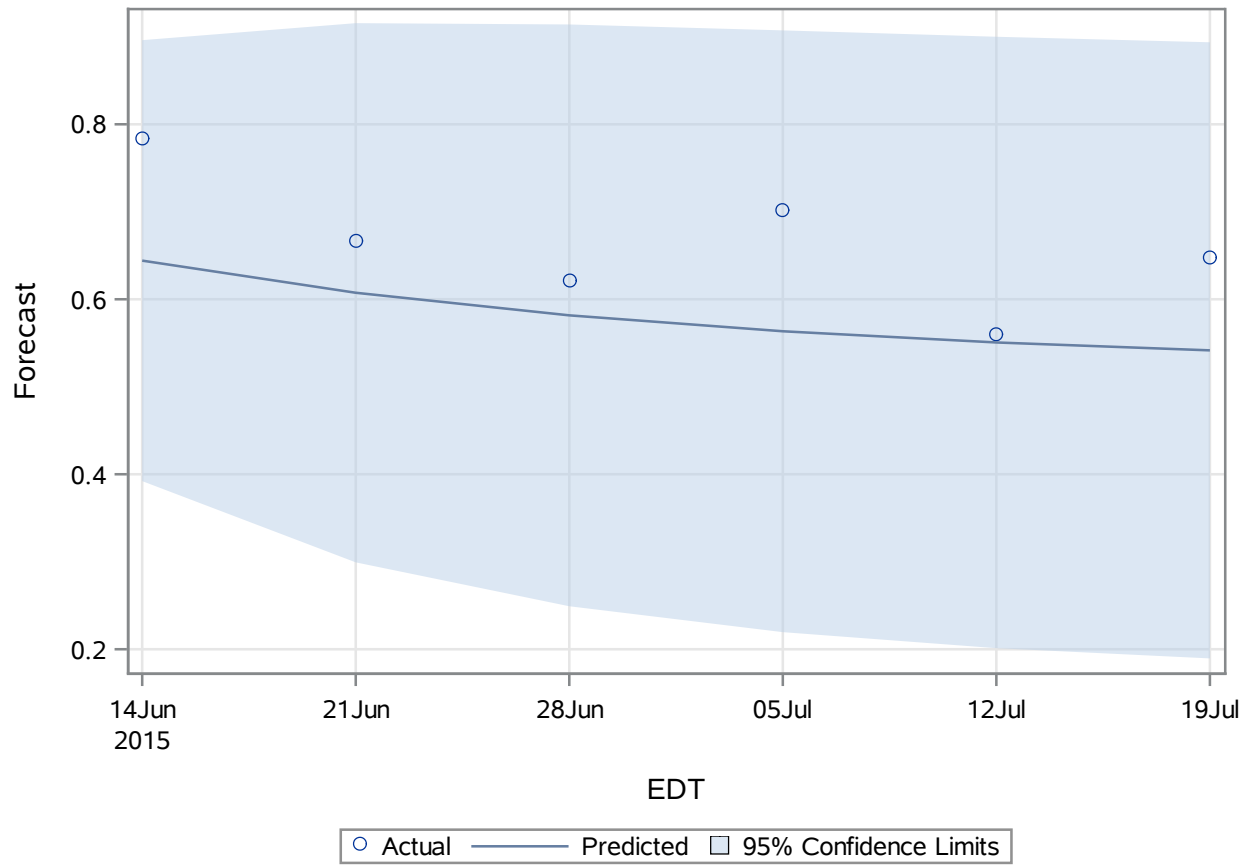
Autoregressive Factors

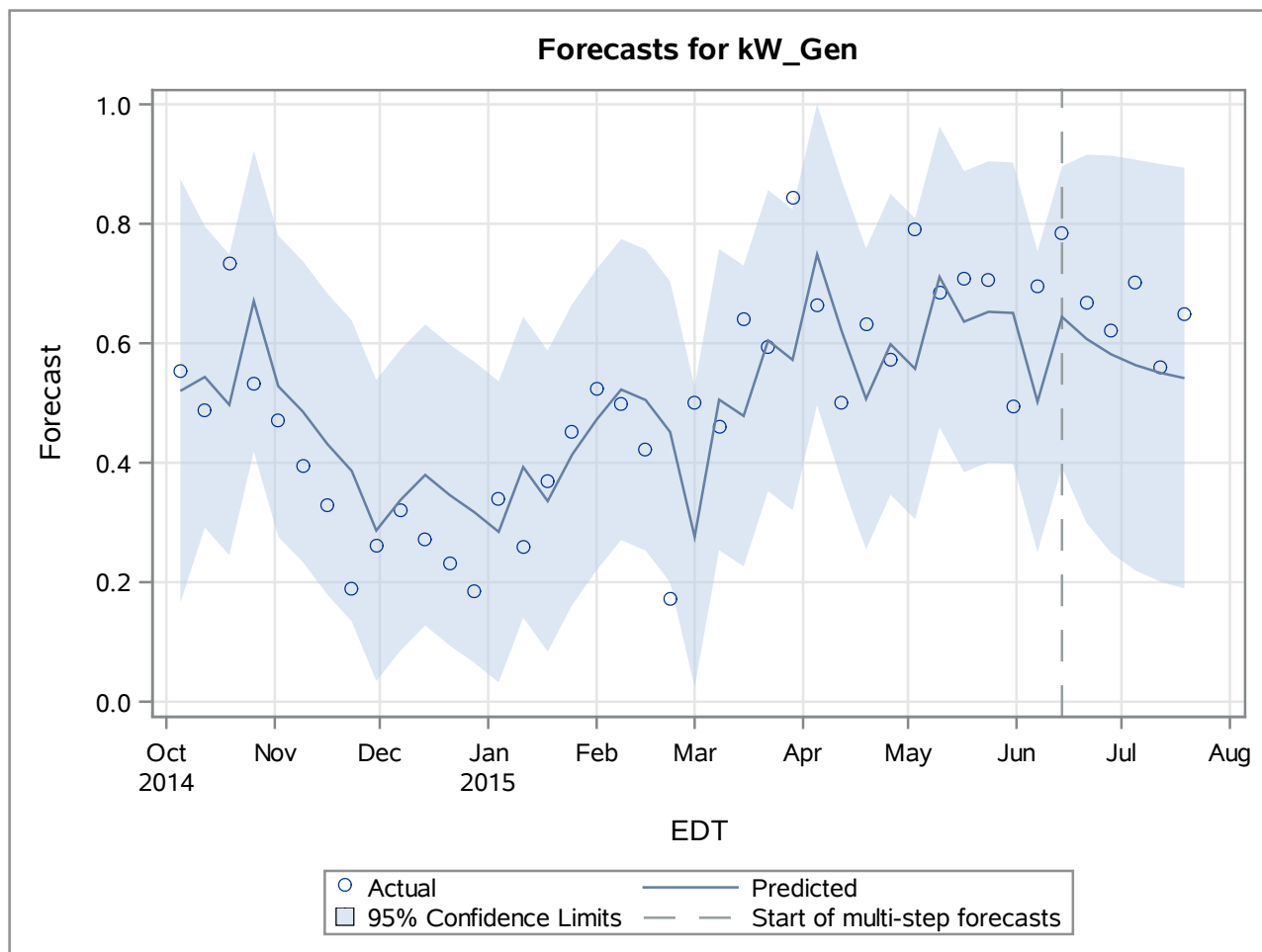
Factor 1: $1 - 0.70389 B^{**}(1)$

Forecasts for variable kW_Gen

Obs	Forecast	Std Error	95% Confidence Limits		Actual	Residual
37	0.6442	0.1286	0.3922	0.8961	0.7835	0.1394
38	0.6075	0.1572	0.2993	0.9156	0.6669	0.0595
39	0.5816	0.1696	0.2491	0.9141	0.6214	0.0398
40	0.5634	0.1755	0.2195	0.9073	0.7014	0.1379
41	0.5506	0.1783	0.2012	0.9000	0.5593	0.0087
42	0.5416	0.1797	0.1895	0.8937	0.6480	0.1064

Forecasts for kW_Gen





Outlier Detection Summary	
Maximum number searched	1
Number found	1
Significance used	0.05

Outlier Details				
Obs	Type	Estimate	Chi-Square	Approx Prob>ChiSq
21	Additive	-0.29146	6.85	0.0089

Name of Variable = kW_Gen	
Mean of Working Series	0.511078
Standard Deviation	0.179364
Number of Observations	42

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	81.65	6	<.0001	0.709	0.648	0.519	0.460	0.412	0.396

Correlation of kW_Gen and Cloud_Cover	
Variance of input =	0.775925
Number of Observations	42

Maximum Likelihood Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > t	Lag	Variable	Shift
MU	1.00001	0.08901	11.23	<.0001	0	kW_Gen	0
AR1,1	0.86587	0.07766	11.15	<.0001	1	kW_Gen	0
NUM1	-0.09061	0.0096050	-9.43	<.0001	0	Cloud_Cover	0

Constant Estimate	0.134134
Variance Estimate	0.005503
Std Error Estimate	0.074179
AIC	-95.0433
SBC	-89.8303
Number of Residuals	42

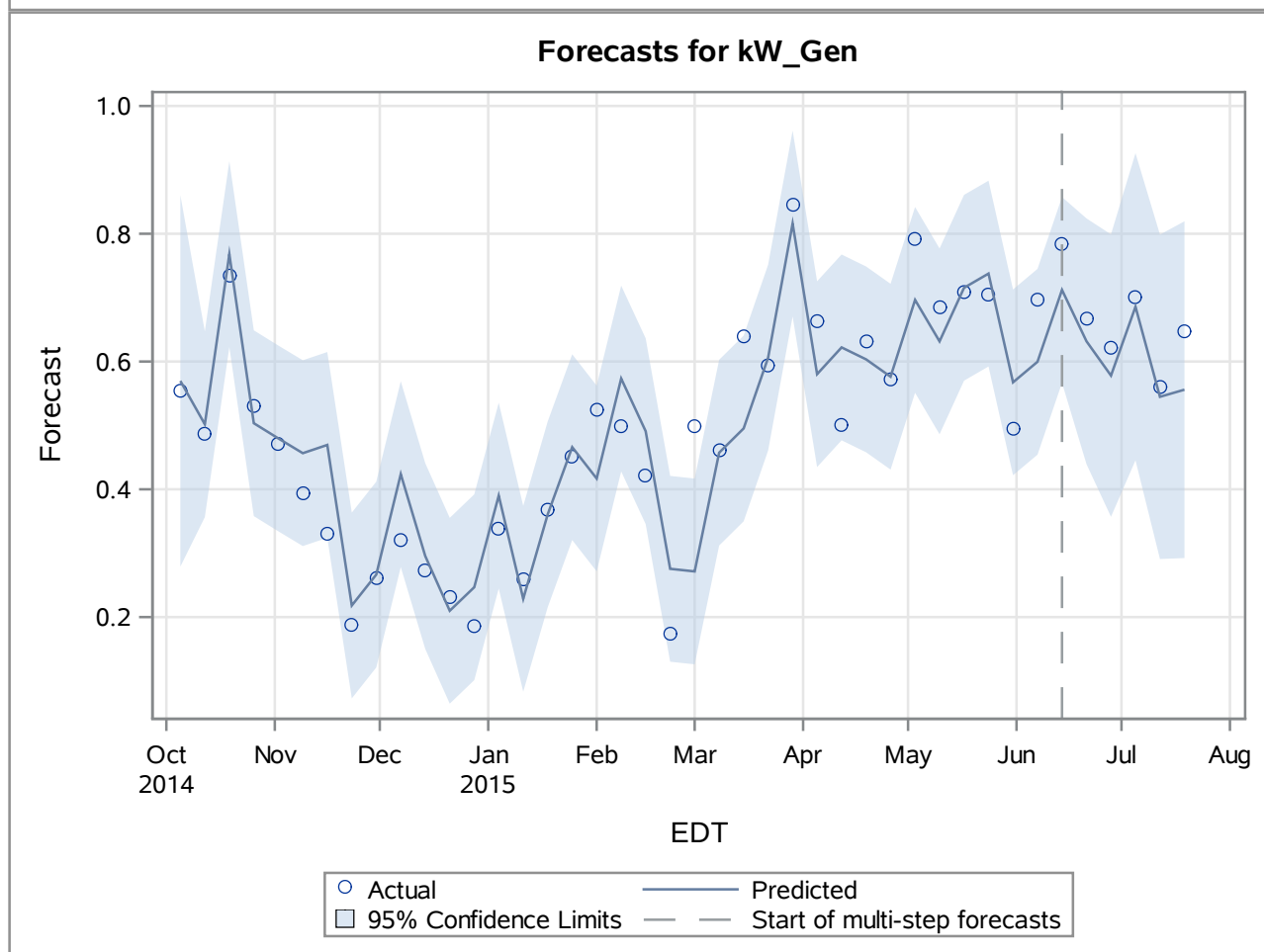
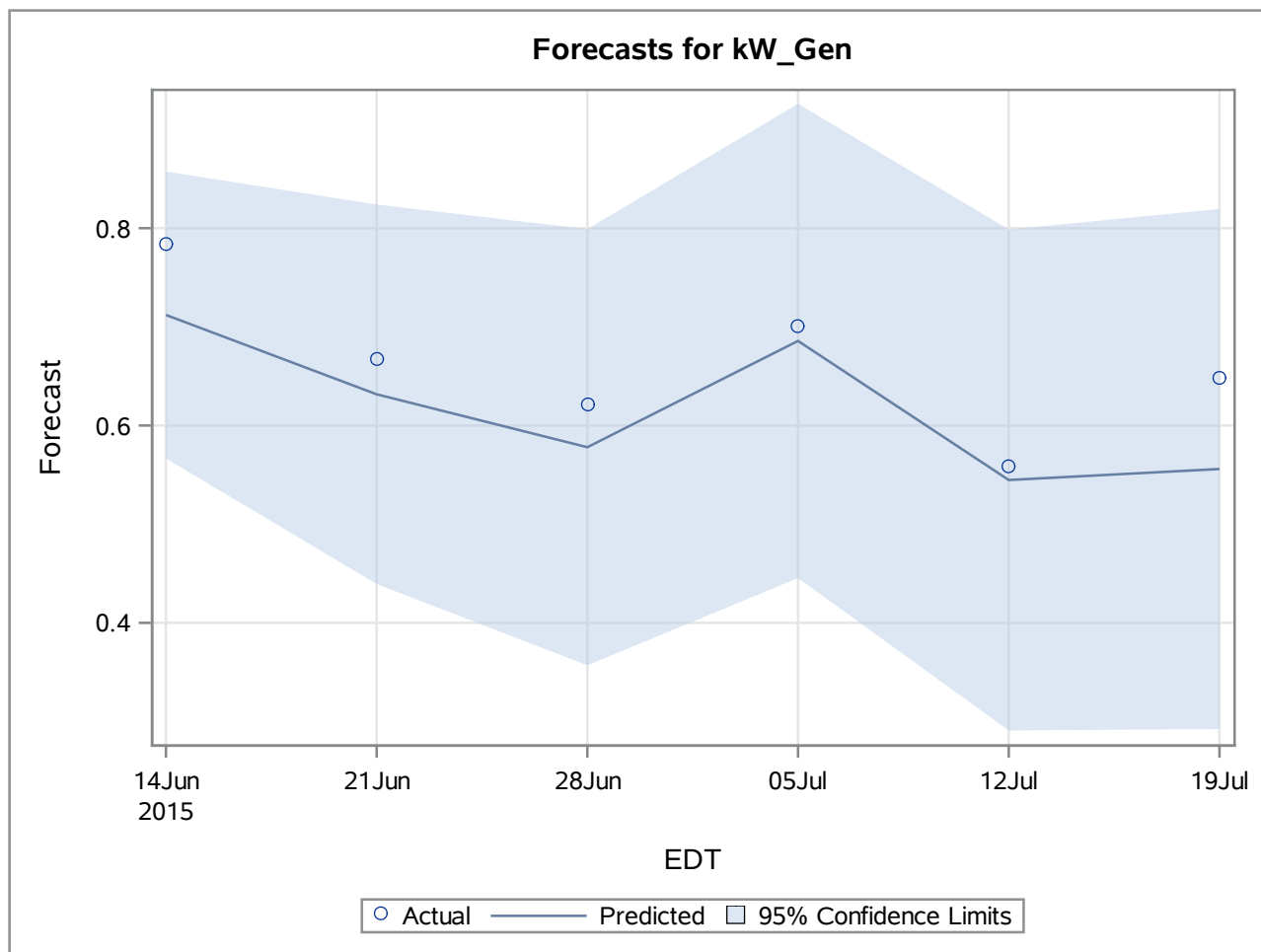
Correlations of Parameter Estimates				
Variable Parameter		kW_Gen MU	kW_Gen AR1,1	Cloud_Cover NUM1
kW_Gen	MU	1.000	0.103	-0.553
kW_Gen	AR1,1	0.103	1.000	0.033
Cloud_Cover	NUM1	-0.553	0.033	1.000

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	2.08	5	0.8379	-0.058	0.056	-0.109	0.057	0.139	0.043
12	7.16	11	0.7860	0.225	-0.101	0.112	0.024	-0.116	-0.071
18	14.98	17	0.5970	0.029	0.121	-0.006	-0.202	-0.212	0.086
24	16.33	23	0.8406	-0.033	0.030	-0.016	-0.051	-0.088	-0.040

Model for variable kW_Gen	
Estimated Intercept	1.000009
Autoregressive Factors	
Factor 1:	1 - 0.86587 B**(1)

Input Number 1	
Input Variable	Cloud_Cover
Overall Regression Factor	-0.09061

Forecasts for variable kW_Gen						
Obs	Forecast	Std Error	95% Confidence Limits		Actual	Residual
37	0.7121	0.0742	0.5667	0.8575	0.7835	0.0715
38	0.6316	0.0981	0.4393	0.8240	0.6669	0.0353
39	0.5780	0.1128	0.3569	0.7991	0.6214	0.0434
40	0.6857	0.1226	0.4454	0.9261	0.7014	0.0156
41	0.5448	0.1295	0.2909	0.7987	0.5593	0.0145
42	0.5559	0.1345	0.2924	0.8195	0.6480	0.0921



Outlier Detection Summary	
Maximum number searched	1
Number found	1
Significance used	0.05

Outlier Details				
Obs	Type	Estimate	Chi-Square	Approx Prob>ChiSq
22	Shift	0.20725	25.81	<.0001

Name of Variable = kW_Gen	
Mean of Working Series	0.511078
Standard Deviation	0.179364
Number of Observations	42

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	81.65	6	<.0001	0.709	0.648	0.519	0.460	0.412	0.396

Maximum Likelihood Estimation					
Parameter	Estimate	Standard Error	t Value	Approx Pr > t	Lag
MU	0.52019	0.06309	8.25	<.0001	0
AR1,1	0.70389	0.11038	6.38	<.0001	1

Constant Estimate	0.154036
Variance Estimate	0.016529
Std Error Estimate	0.128564
AIC	-50.4857
SBC	-47.0103
Number of Residuals	42

Correlations of Parameter Estimates		
Parameter	MU	AR1,1
MU	1.000	0.055
AR1,1	0.055	1.000

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	4.04	5	0.5430	-0.187	0.197	0.011	0.070	0.024	0.089
12	7.81	11	0.7301	0.221	0.090	0.009	-0.103	0.023	-0.039
18	13.25	17	0.7193	0.024	0.071	-0.000	-0.103	-0.027	-0.235
24	15.41	23	0.8792	-0.020	-0.010	-0.066	-0.077	0.043	-0.099

Model for variable kW_Gen	
Estimated Mean	0.520193

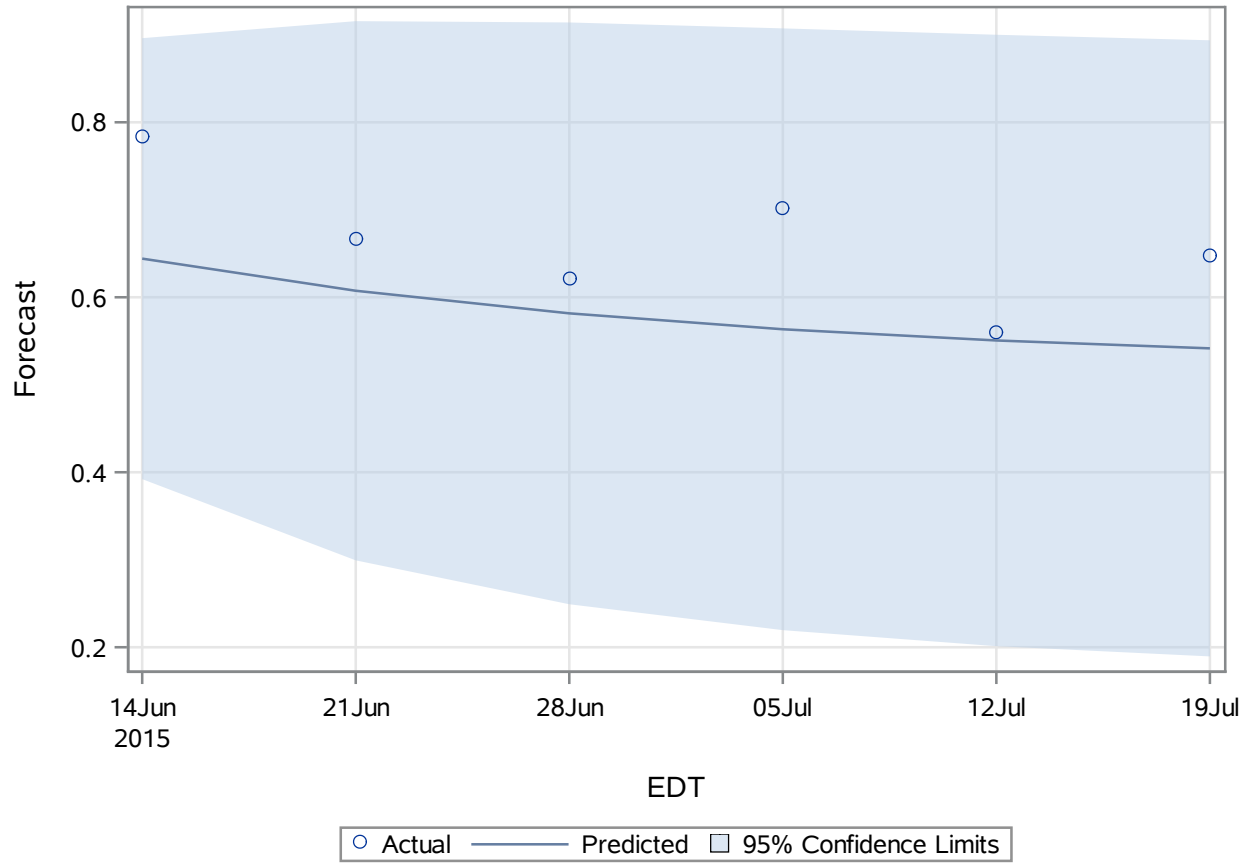
Autoregressive Factors

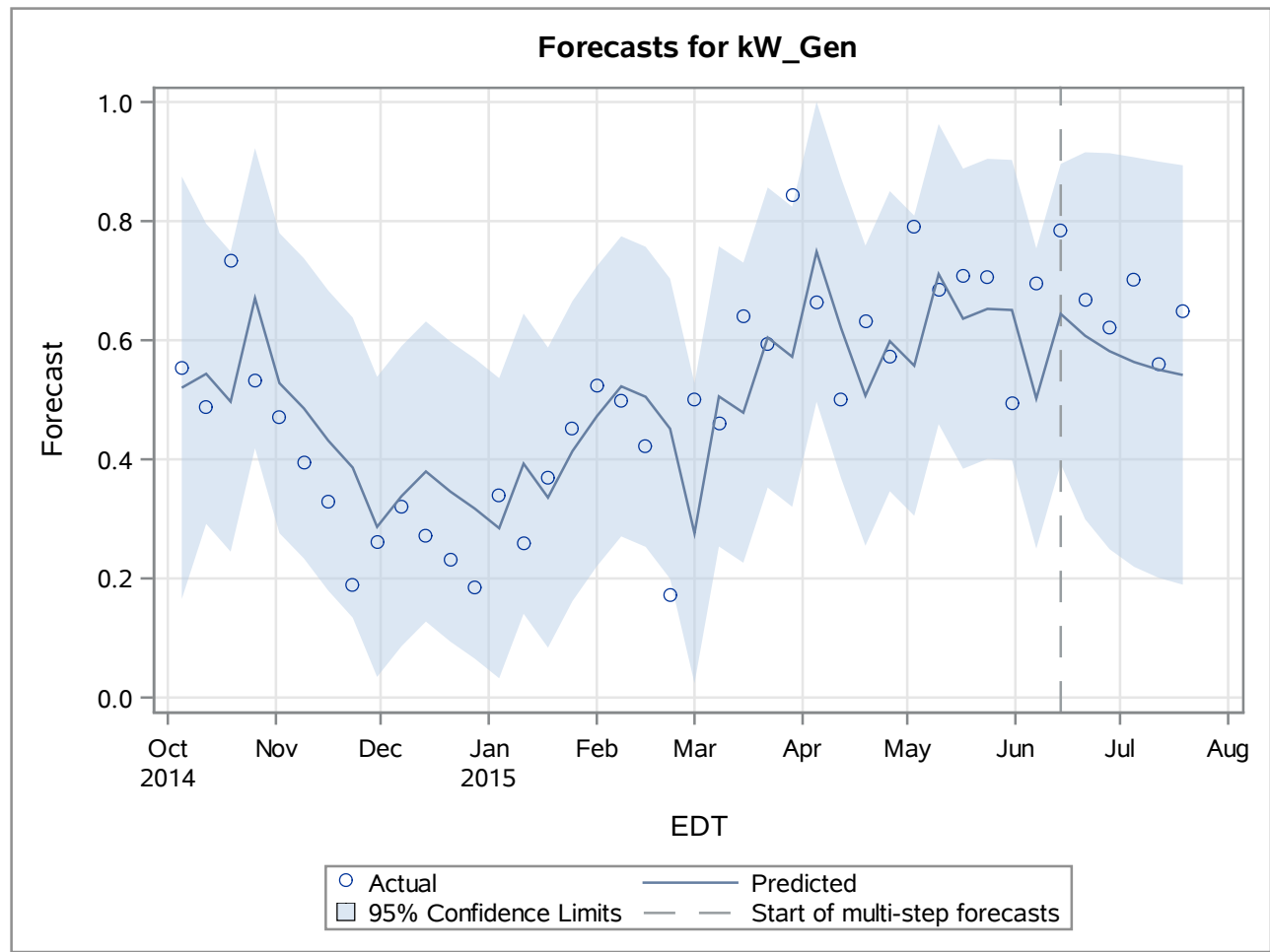
Factor 1: $1 - 0.70389 B^{**}(1)$

Forecasts for variable kW_Gen

Obs	Forecast	Std Error	95% Confidence Limits		Actual	Residual
37	0.6442	0.1286	0.3922	0.8961	0.7835	0.1394
38	0.6075	0.1572	0.2993	0.9156	0.6669	0.0595
39	0.5816	0.1696	0.2491	0.9141	0.6214	0.0398
40	0.5634	0.1755	0.2195	0.9073	0.7014	0.1379
41	0.5506	0.1783	0.2012	0.9000	0.5593	0.0087
42	0.5416	0.1797	0.1895	0.8937	0.6480	0.1064

Forecasts for kW_Gen





Outlier Detection Summary	
Maximum number searched	1
Number found	1
Significance used	0.05

Outlier Details				
Obs	Type	Estimate	Chi-Square	Approx Prob>ChiSq
21	Additive	-0.29146	6.85	0.0089

Name of Variable = kW_Gen	
Mean of Working Series	0.511078
Standard Deviation	0.179364
Number of Observations	42

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	81.65	6	<.0001	0.709	0.648	0.519	0.460	0.412	0.396

Correlation of kW_Gen and Cloud_Cover	
Variance of input =	0.775925
Number of Observations	42

Maximum Likelihood Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > t	Lag	Variable	Shift
MU	1.00001	0.08901	11.23	<.0001	0	kW_Gen	0
AR1,1	0.86587	0.07766	11.15	<.0001	1	kW_Gen	0
NUM1	-0.09061	0.0096050	-9.43	<.0001	0	Cloud_Cover	0

Constant Estimate	0.134134
Variance Estimate	0.005503
Std Error Estimate	0.074179
AIC	-95.0433
SBC	-89.8303
Number of Residuals	42

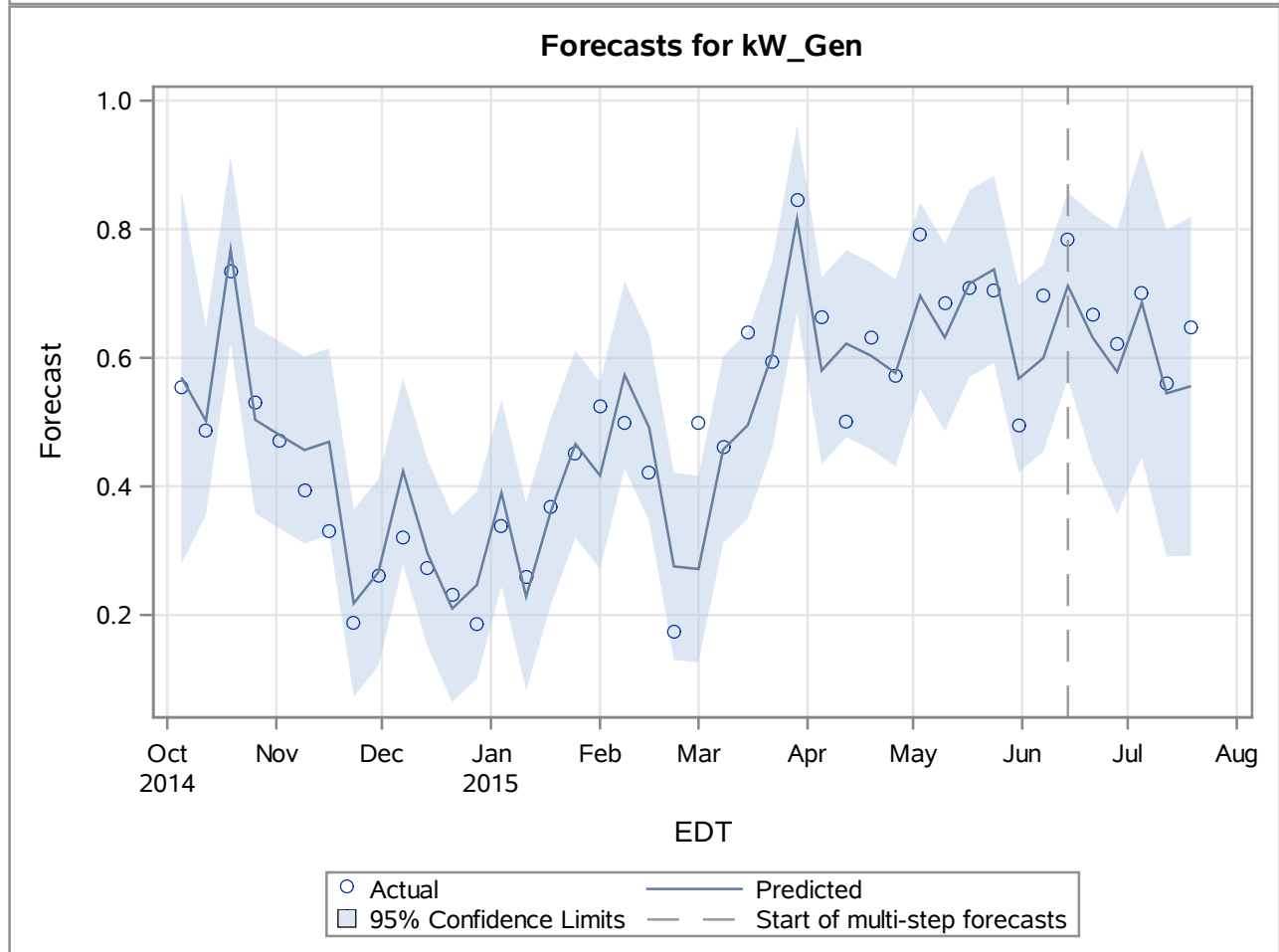
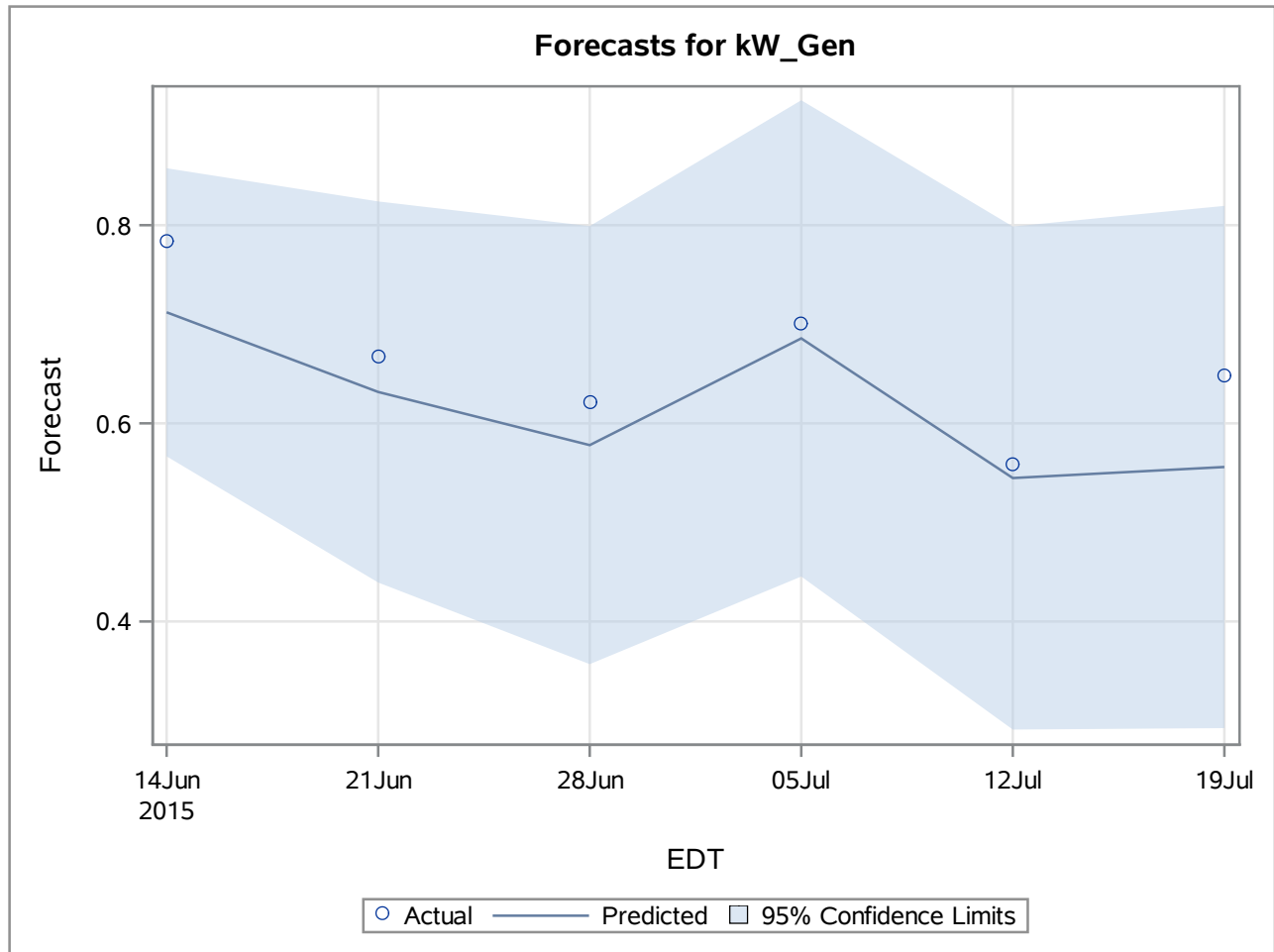
Correlations of Parameter Estimates				
Variable Parameter		kW_Gen MU	kW_Gen AR1,1	Cloud_Cover NUM1
kW_Gen	MU	1.000	0.103	-0.553
kW_Gen	AR1,1	0.103	1.000	0.033
Cloud_Cover	NUM1	-0.553	0.033	1.000

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	2.08	5	0.8379	-0.058	0.056	-0.109	0.057	0.139	0.043
12	7.16	11	0.7860	0.225	-0.101	0.112	0.024	-0.116	-0.071
18	14.98	17	0.5970	0.029	0.121	-0.006	-0.202	-0.212	0.086
24	16.33	23	0.8406	-0.033	0.030	-0.016	-0.051	-0.088	-0.040

Model for variable kW_Gen	
Estimated Intercept	1.000009
Autoregressive Factors	
Factor 1:	1 - 0.86587 B**(1)

Input Number 1	
Input Variable	Cloud_Cover
Overall Regression Factor	-0.09061

Forecasts for variable kW_Gen						
Obs	Forecast	Std Error	95% Confidence Limits		Actual	Residual
37	0.7121	0.0742	0.5667	0.8575	0.7835	0.0715
38	0.6316	0.0981	0.4393	0.8240	0.6669	0.0353
39	0.5780	0.1128	0.3569	0.7991	0.6214	0.0434
40	0.6857	0.1226	0.4454	0.9261	0.7014	0.0156
41	0.5448	0.1295	0.2909	0.7987	0.5593	0.0145
42	0.5559	0.1345	0.2924	0.8195	0.6480	0.0921



Outlier Detection Summary	
Maximum number searched	1
Number found	1
Significance used	0.05

Outlier Details				
Obs	Type	Estimate	Chi-Square	Approx Prob>ChiSq
22	Shift	0.20725	25.81	<.0001

Obs	AR1_MAPE
1	0.11792

Obs	ARMAX1_MAPE
1	0.067398

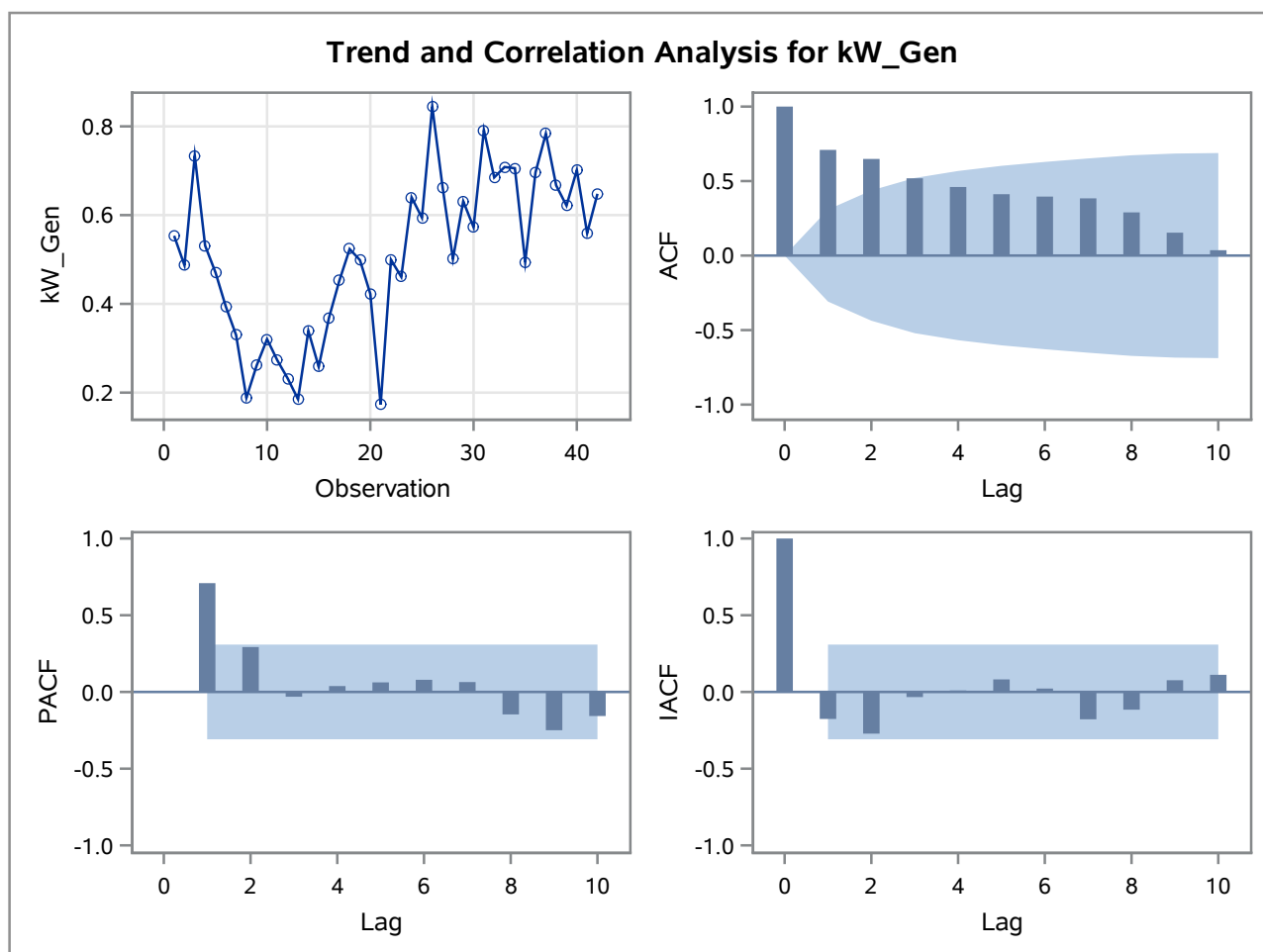
Series	Model	MAPE
kW_Gen	ar1_forecast	0.11792

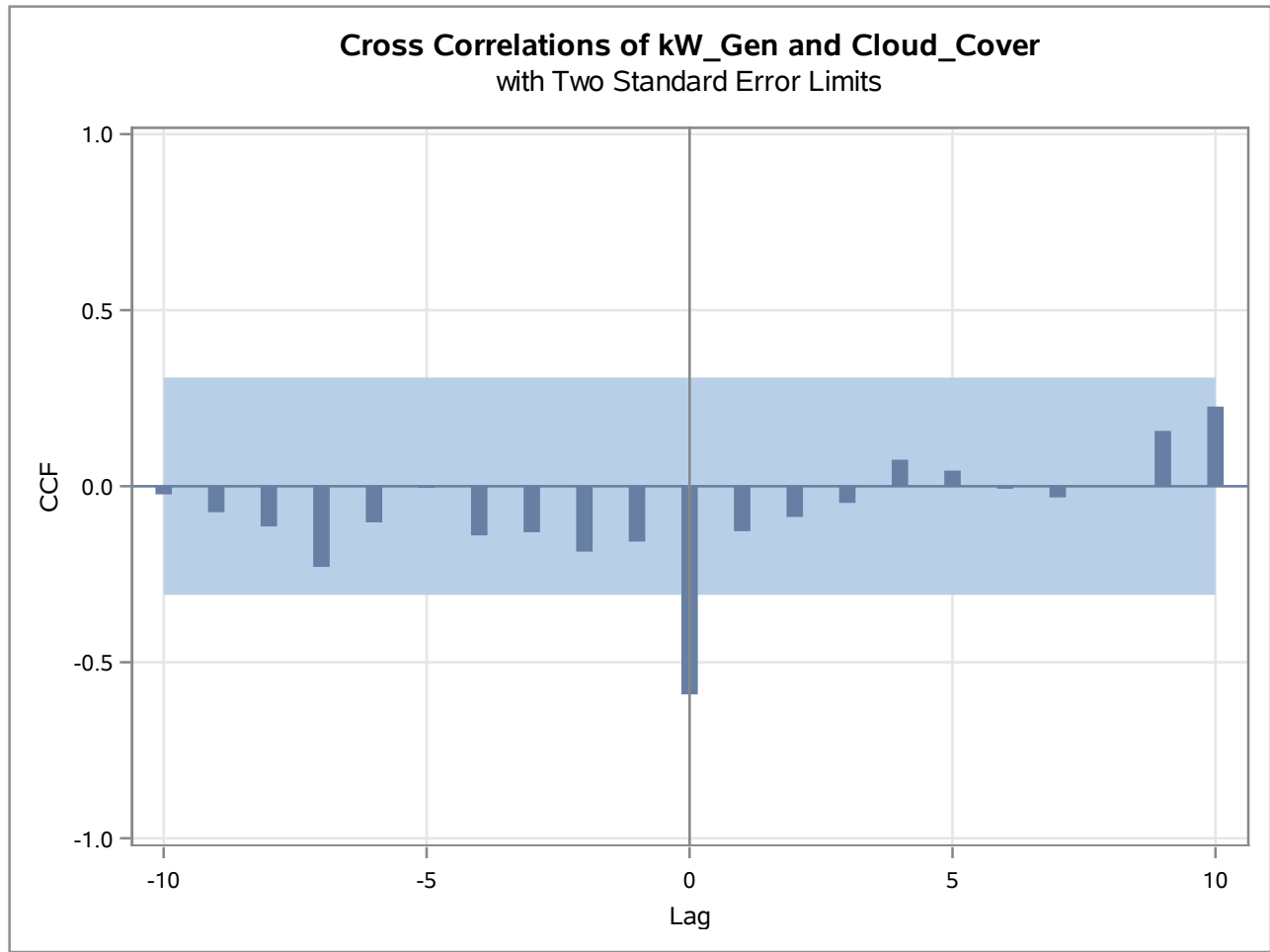
Series	Model	MAPE
kW_Gen	armax1_forecast	0.067398

Name of Variable = kW_Gen	
Mean of Working Series	0.511078
Standard Deviation	0.179364
Number of Observations	42

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	81.65	6	<.0001	0.709	0.648	0.519	0.460	0.412	0.396

Correlation of kW_Gen and Cloud_Cover	
Variance of input =	0.761564
Number of Observations	42



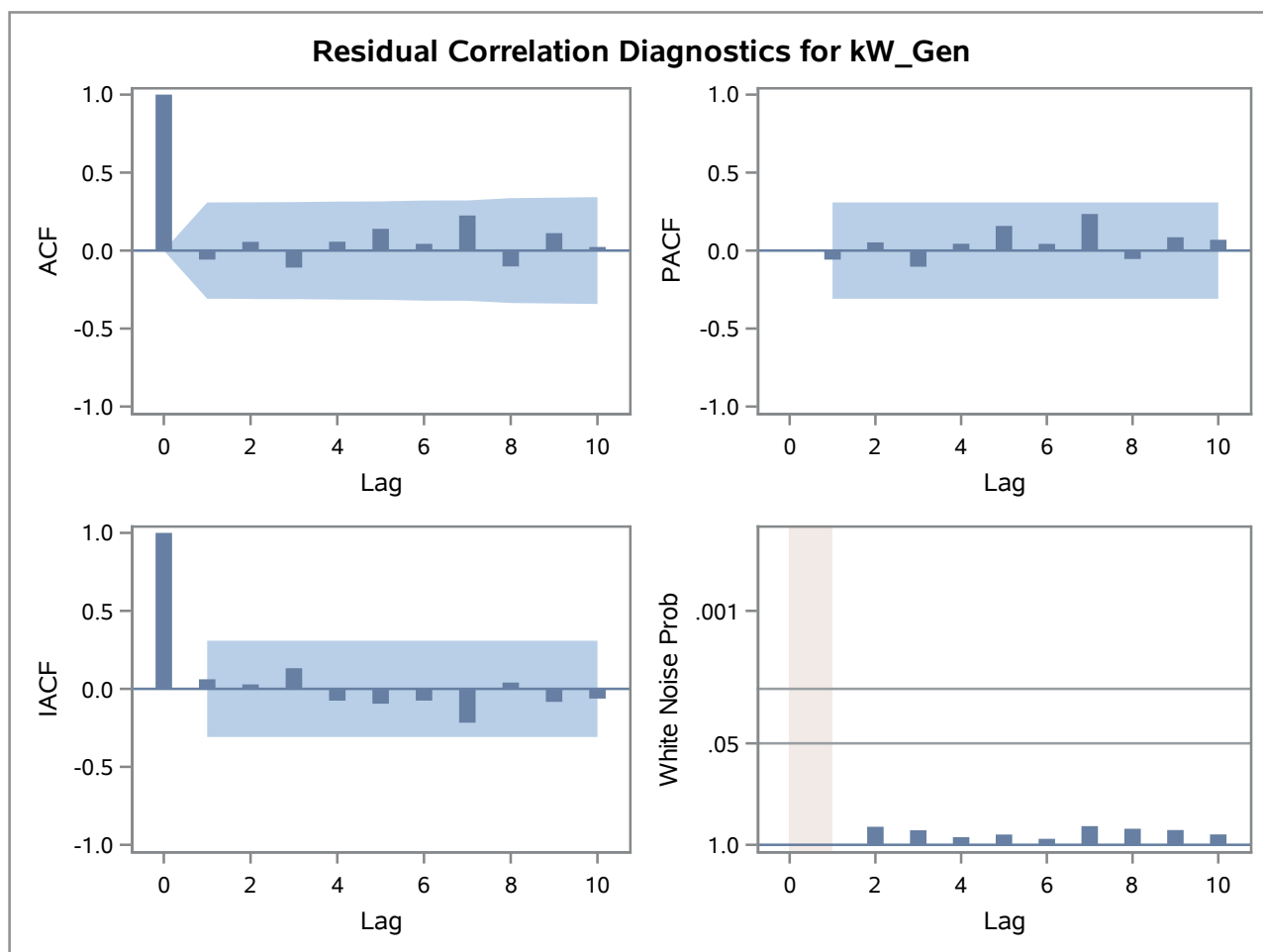


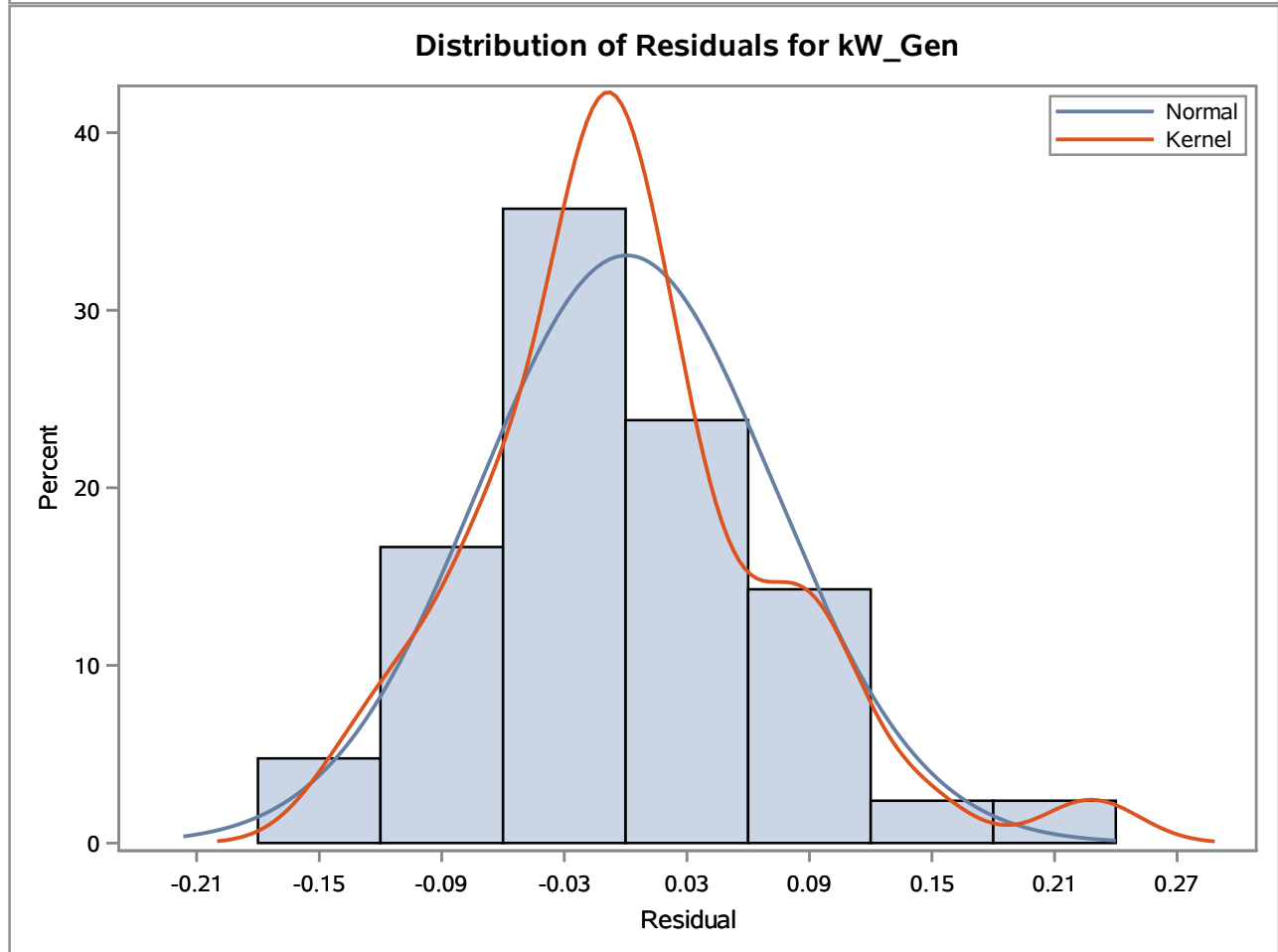
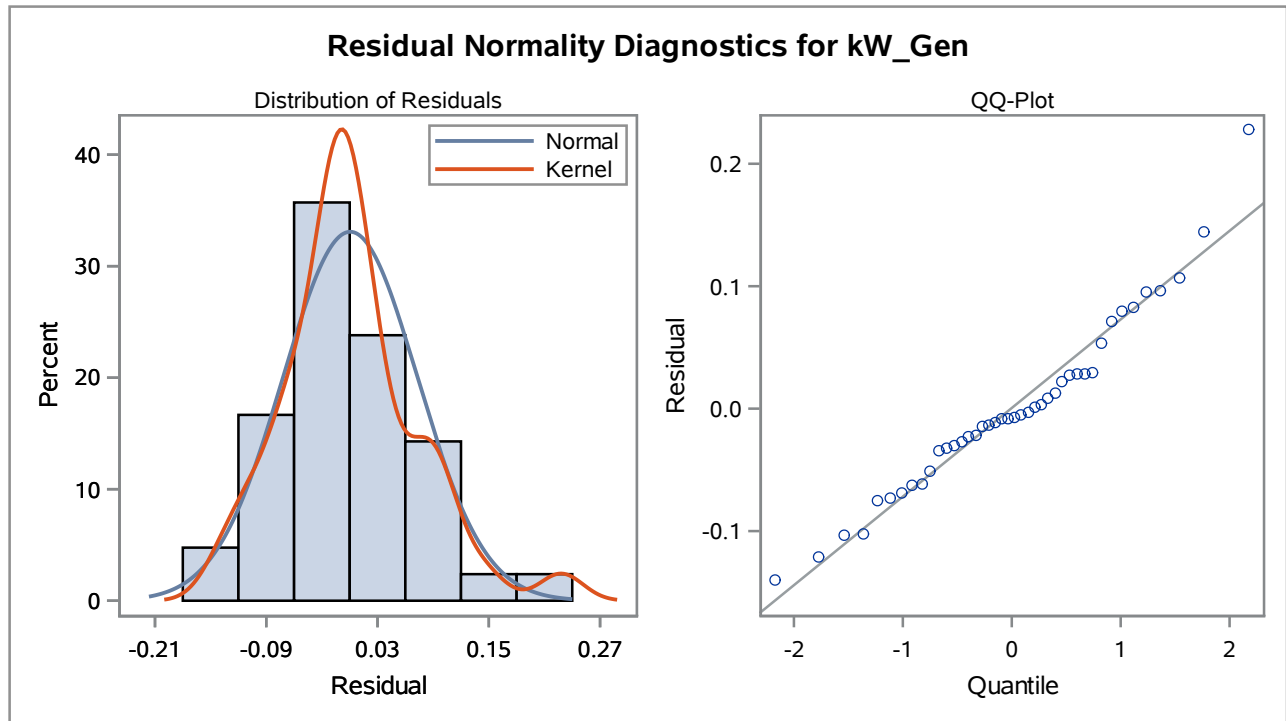
Maximum Likelihood Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > t	Lag	Variable	Shift
MU	1.00001	0.08901	11.23	<.0001	0	kW_Gen	0
AR1,1	0.86587	0.07766	11.15	<.0001	1	kW_Gen	0
NUM1	-0.09061	0.0096050	-9.43	<.0001	0	Cloud_Cover	0

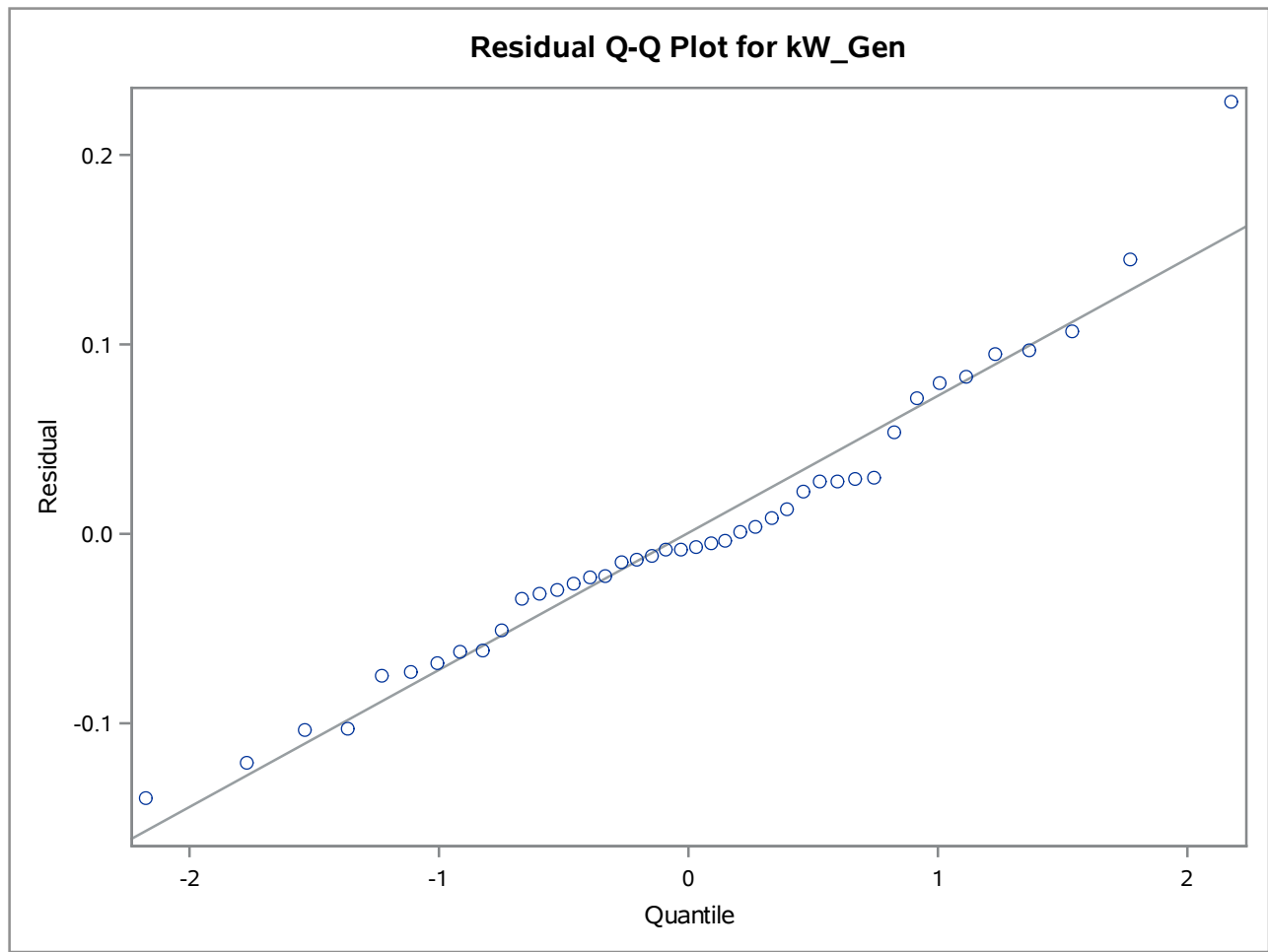
Constant Estimate	0.134134
Variance Estimate	0.005503
Std Error Estimate	0.074179
AIC	-95.0433
SBC	-89.8303
Number of Residuals	42

Correlations of Parameter Estimates				
Variable Parameter		kW_Gen MU	kW_Gen AR1,1	Cloud_Cover NUM1
kW_Gen	MU	1.000	0.103	-0.553
kW_Gen	AR1,1	0.103	1.000	0.033
Cloud_Cover	NUM1	-0.553	0.033	1.000

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	2.08	5	0.8379	-0.058	0.056	-0.109	0.057	0.139	0.043
12	7.16	11	0.7860	0.225	-0.101	0.112	0.024	-0.116	-0.071
18	14.98	17	0.5970	0.029	0.121	-0.006	-0.202	-0.212	0.086
24	16.33	23	0.8406	-0.033	0.030	-0.016	-0.051	-0.088	-0.040







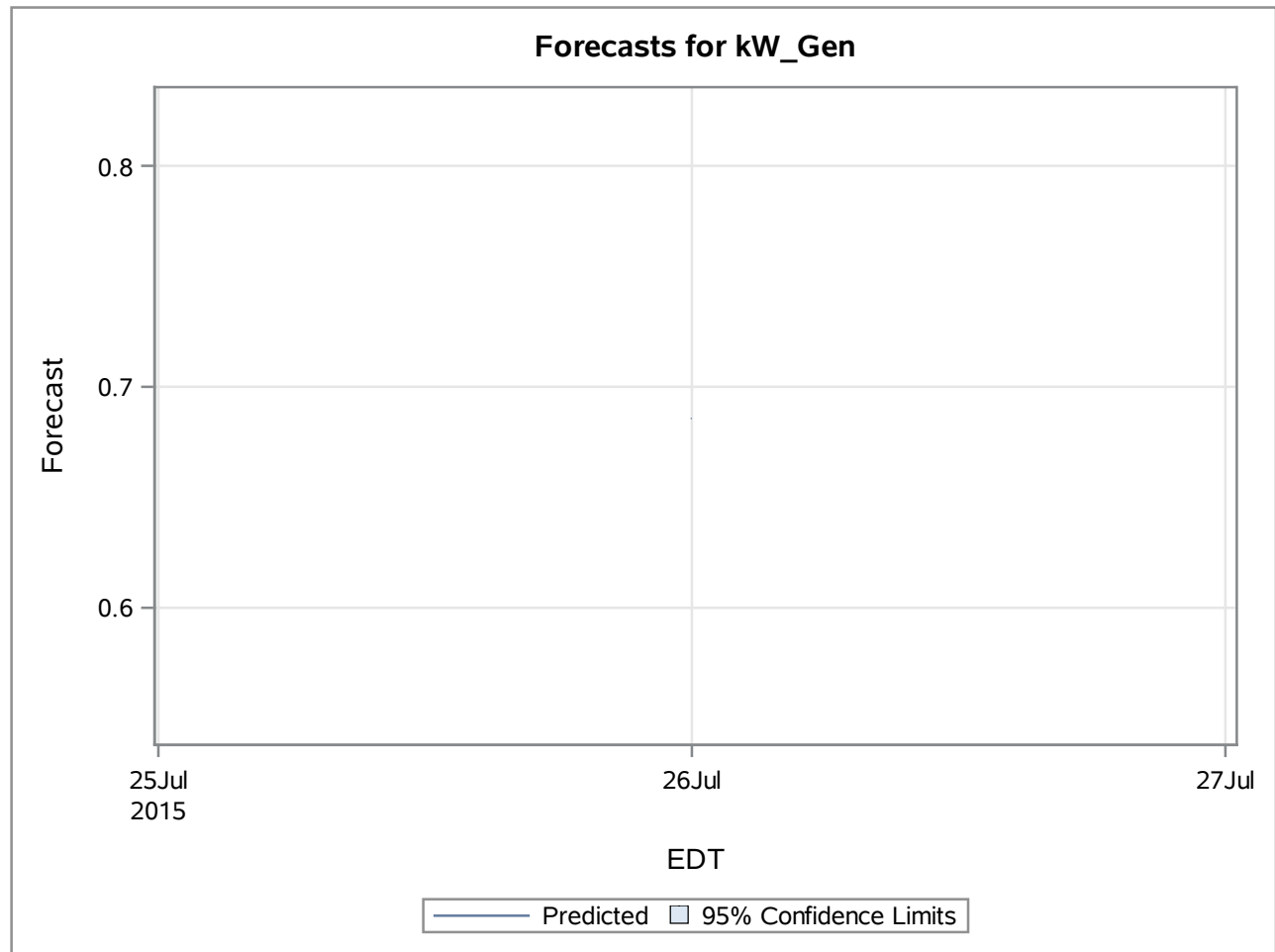
Model for variable kW_Gen	
Estimated Intercept	1.000009
Autoregressive Factors	
Factor 1:	1 - 0.86587 B**(1)

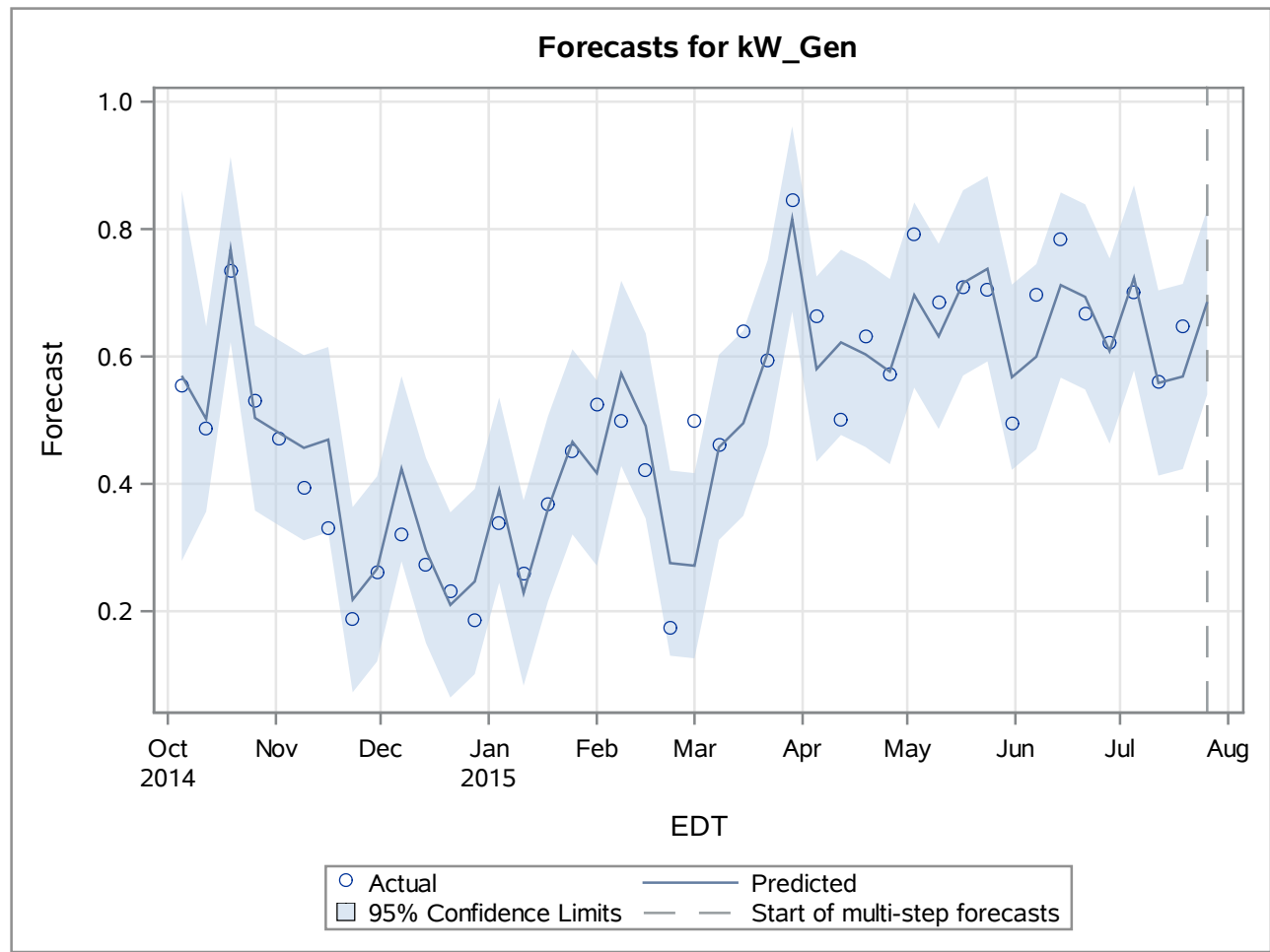
Input Number 1	
Input Variable	Cloud_Cover
Overall Regression Factor	-0.09061

Forecasts for variable kW_Gen					
Obs	Forecast	Std Error	95% Confidence Limits		Residual
1	0.5696	0.1483	0.2790	0.8602	-0.0162
2	0.5018	0.0742	0.3564	0.6472	-0.0147
3	0.7680	0.0742	0.6226	0.9134	-0.0343
4	0.5034	0.0742	0.3580	0.6488	0.0278
5	0.4797	0.0742	0.3343	0.6250	-0.0086
6	0.4565	0.0742	0.3111	0.6019	-0.0624

Forecasts for variable kW_Gen						
Obs	Forecast	Std Error	95% Confidence Limits		Actual	Residual
7	0.4694	0.0742	0.3241	0.6148	0.3297	-0.1397
8	0.2181	0.0742	0.0727	0.3635	0.1883	-0.0298
9	0.2665	0.0742	0.1211	0.4119	0.2615	-0.0050
10	0.4237	0.0742	0.2783	0.5691	0.3204	-0.1033
11	0.2955	0.0742	0.1502	0.4409	0.2725	-0.0230
12	0.2099	0.0742	0.0645	0.3553	0.2319	0.0220
13	0.2467	0.0742	0.1013	0.3921	0.1851	-0.0616
14	0.3901	0.0742	0.2447	0.5355	0.3391	-0.0510
15	0.2286	0.0742	0.0832	0.3740	0.2582	0.0296
16	0.3607	0.0742	0.2153	0.5061	0.3690	0.0082
17	0.4660	0.0742	0.3206	0.6114	0.4522	-0.0138
18	0.4169	0.0742	0.2715	0.5622	0.5235	0.1067
19	0.5733	0.0742	0.4280	0.7187	0.4986	-0.0748
20	0.4910	0.0742	0.3456	0.6364	0.4225	-0.0685
21	0.2755	0.0742	0.1302	0.4209	0.1730	-0.1025
22	0.2714	0.0742	0.1261	0.4168	0.4995	0.2281
23	0.4573	0.0742	0.3119	0.6027	0.4607	0.0034
24	0.4953	0.0742	0.3499	0.6406	0.6400	0.1448
25	0.6060	0.0742	0.4606	0.7514	0.5942	-0.0119
26	0.8159	0.0742	0.6705	0.9613	0.8446	0.0287
27	0.5802	0.0742	0.4348	0.7256	0.6630	0.0828
28	0.6221	0.0742	0.4767	0.7675	0.5013	-0.1208
29	0.6034	0.0742	0.4580	0.7488	0.6312	0.0279
30	0.5763	0.0742	0.4309	0.7216	0.5728	-0.0034
31	0.6964	0.0742	0.5510	0.8418	0.7914	0.0950
32	0.6315	0.0742	0.4861	0.7769	0.6849	0.0534
33	0.7154	0.0742	0.5700	0.8608	0.7084	-0.0070
34	0.7376	0.0742	0.5922	0.8830	0.7057	-0.0319
35	0.5674	0.0742	0.4220	0.7128	0.4945	-0.0730
36	0.5996	0.0742	0.4542	0.7450	0.6963	0.0967
37	0.7121	0.0742	0.5667	0.8575	0.7835	0.0715
38	0.6935	0.0742	0.5481	0.8389	0.6669	-0.0266
39	0.6085	0.0742	0.4632	0.7539	0.6214	0.0129
40	0.7233	0.0742	0.5780	0.8687	0.7014	-0.0220
41	0.5583	0.0742	0.4129	0.7037	0.5593	0.0010

Forecasts for variable kW_Gen						
Obs	Forecast	Std Error	95% Confidence Limits		Actual	Residual
42	0.5685	0.0742	0.4231	0.7139	0.6480	0.0795
43	0.6856	0.0742	0.5402	0.8310	.	.





Outlier Detection Summary	
Maximum number searched	1
Number found	1
Significance used	0.05

Outlier Details				
Obs	Type	Estimate	Chi-Square	Approx Prob>ChiSq
22	Shift	0.20725	25.81	<.0001