

LAMPIRAN DATA DAN HASIL OLAHAN PROGRAM EIEWS 8

1. Data Energi Terjual tahun 2018

	Indonesia Bag Barat	Indonesia Bag Tengah	Indonesia Bag Timur	Total
Energi Terjual	207.879	24.254	2.485	234.618
Persentase	88,60	10,34	1,06	100

Grafik energi terjual tahun 2018 (sumber: PLN diolah)



2. Data Pertumbuhan Jumlah Produksi Listrik

Tahun	Jumlah produksi listrik (GWh)	Pertumbuhan (%)
2009	156.797,26	-
2010	169.786,23	8,28
2011	183.420,94	8,03
2012	200.317,59	9,21
2013	216.188,54	7,92
2014	228.554,91	5,72
2015	233.982,00	2,37
2016	248.610,52	6,25
2017	254.659,78	2,43
2018	267.085,38	4,88
Rata-rata		6,12

sumber: PLN diolah

Model Regresi Data Panel

1. Common Effect Model (CEM)

Dependent Variable: DEMAND
 Method: Panel Least Squares
 Date: 08/03/21 Time: 09:36
 Sample: 2010 2017
 Periods included: 8
 Cross-sections included: 5
 Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6018.061	2541.240	-2.368160	0.0234
PDRB	0.038904	0.002448	15.89438	0.0000
TDL	4.463386	0.987580	4.519517	0.0001
HSI	0.160933	0.322604	0.498856	0.6209
R-squared	0.894076	Mean dependent var		11122.35
Adjusted R-squared	0.885249	S.D. dependent var		7301.760
S.E. of regression	2473.464	Akaike info criterion		18.55927
Sum squared resid	2.20E+08	Schwarz criterion		18.72815
Log likelihood	-367.1853	Hannan-Quinn criter.		18.62033
F-statistic	101.2889	Durbin-Watson stat		0.551197
Prob(F-statistic)	0.000000			

2. Fixed Effect Model (FEM)

Dependent Variable: DEMAND
 Method: Panel Least Squares
 Date: 08/03/21 Time: 09:52
 Sample: 2010 2017
 Periods included: 8
 Cross-sections included: 5
 Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	249.5962	814.2778	0.306525	0.7612
PDRB	0.041495	0.003429	12.09971	0.0000
TDL	-2.066938	0.590048	-3.503000	0.0014
HSI	0.170276	0.073452	2.318182	0.0270

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.995608	Mean dependent var	11122.35
Adjusted R-squared	0.994647	S.D. dependent var	7301.760
S.E. of regression	534.2379	Akaike info criterion	15.57642
Sum squared resid	9133126.	Schwarz criterion	15.91419
Log likelihood	-303.5283	Hannan-Quinn criter.	15.69855
F-statistic	1036.192	Durbin-Watson stat	1.514759
Prob(F-statistic)	0.000000		

3. Random Effect Model (REM)

Dependent Variable: DEMAND
 Method: Panel EGLS (Cross-section random effects)
 Date: 08/03/21 Time: 11:26
 Sample: 2010 2017
 Periods included: 8
 Cross-sections included: 5
 Total panel (balanced) observations: 40
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	333.5311	1231.490	0.270835	0.7881
PDRB	0.040131	0.002976	13.48594	0.0000
TDL	-1.733793	0.539337	-3.214674	0.0028
HSI	0.162833	0.073279	2.222094	0.0326

Effects Specification		S.D.	Rho
Cross-section random		2150.557	0.9419
Idiosyncratic random		534.2379	0.0581

Weighted Statistics			
R-squared	0.862274	Mean dependent var	973.1209
Adjusted R-squared	0.850797	S.D. dependent var	1540.744
S.E. of regression	595.1398	Sum squared resid	12750892
F-statistic	75.12969	Durbin-Watson stat	1.089811
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.774073	Mean dependent var	11122.35
Sum squared resid	4.70E+08	Durbin-Watson stat	0.135464

Pemilihan Teknik Estimasi Regresi Data Panel

1. Uji Chow (Uji F)

Redundant Fixed Effects Tests
 Equation: Untitled
 Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	184.923123	(4,32)	0.0000
Cross-section Chi-square	127.314010	4	0.0000

Cross-section fixed effects test equation:
 Dependent Variable: DEMAND
 Method: Panel Least Squares
 Date: 08/03/21 Time: 11:28
 Sample: 2010 2017
 Periods included: 8
 Cross-sections included: 5

Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6018.061	2541.240	-2.368160	0.0234
PDRB	0.038904	0.002448	15.89438	0.0000
TDL	4.463386	0.987580	4.519517	0.0001
HSI	0.160933	0.322604	0.498856	0.6209
R-squared	0.894076	Mean dependent var		11122.35
Adjusted R-squared	0.885249	S.D. dependent var		7301.760
S.E. of regression	2473.464	Akaike info criterion		18.55927
Sum squared resid	2.20E+08	Schwarz criterion		18.72815
Log likelihood	-367.1853	Hannan-Quinn criter.		18.62033
F-statistic	101.2889	Durbin-Watson stat		0.551197
Prob(F-statistic)	0.000000			

2. Uji Hausman

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.675673	3	0.0086

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
PDRB	0.041495	0.040131	0.000003	0.4237
TDL	-2.066938	-1.733793	0.057272	0.1639
HSI	0.170276	0.162833	0.000025	0.1399

Cross-section random effects test equation:

Dependent Variable: DEMAND

Method: Panel Least Squares

Date: 08/03/21 Time: 11:30

Sample: 2010 2017

Periods included: 8

Cross-sections included: 5

Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	249.5962	814.2778	0.306525	0.7612
PDRB	0.041495	0.003429	12.09971	0.0000
TDL	-2.066938	0.590048	-3.503000	0.0014
HSI	0.170276	0.073452	2.318182	0.0270

Effects Specification

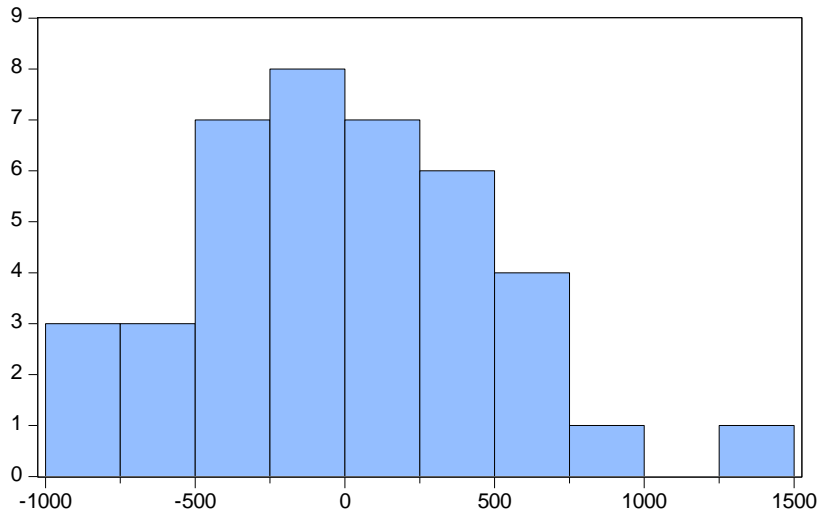
Cross-section fixed (dummy variables)

R-squared	0.995608	Mean dependent var	11122.35
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Adjusted R-squared	0.994647	S.D. dependent var	7301.760
S.E. of regression	534.2379	Akaike info criterion	15.57642
Sum squared resid	9133126.	Schwarz criterion	15.91419
Log likelihood	-303.5283	Hannan-Quinn criter.	15.69855
F-statistic	1036.192	Durbin-Watson stat	1.514759
Prob(F-statistic)	0.000000		

Asumsi Klasik dalam Data Panel

1. Normalitas



Series: Standardized Residuals
Sample 2010 2017
Observations 40

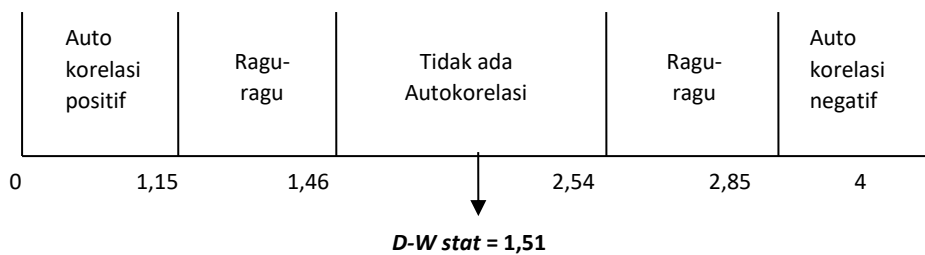
Mean -8.24e-14
Median -4.303608
Maximum 1348.990
Minimum -972.8299
Std. Dev. 483.9243
Skewness 0.212489
Kurtosis 3.258542

Jarque-Bera 0.412417
Probability 0.813663

2. Non Multikolinieritas

	PDRB	TDL	HSI
PDRB	1	0.13964247396536	0.09264042680518636
TDL	0.13964247396536	1	0.1871275401771084
HSI	0.09264042680518636	0.1871275401771084	1

3. Non Autokorelasi



4. Non Heteroskedatisitas

Dependent Variable: RESABS
Method: Panel Least Squares
Date: 08/03/21 Time: 11:51
Sample: 2010 2017
Periods included: 8
Cross-sections included: 5
Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	327.1156	441.6558	0.740657	0.4643
PDRB	0.000465	0.001860	0.249930	0.8042
TDL	-0.181858	0.320036	-0.568244	0.5738
HSI	0.014491	0.039840	0.363739	0.7184

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.248995	Mean dependent var	372.6750
Adjusted R-squared	0.084712	S.D. dependent var	302.8777
S.E. of regression	289.7651	Akaike info criterion	14.35287
Sum squared resid	2686841.	Schwarz criterion	14.69065
Log likelihood	-279.0575	Hannan-Quinn criter.	14.47500
F-statistic	1.515652	Durbin-Watson stat	2.299536
Prob(F-statistic)	0.197459		
