



Registrar

National Electric Power Regulatory Authority
Islamic Republic of Pakistan

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No.NEPRA/TRF-72/EPQL-2007/11353-11355
September 17, 2013

**Subject: Decision of the Authority in the matter of Engro Powergen Qadirpur Limited
Tariff Adjustments on High Speed Diesel and Mixed Fuel Operations at
Commercial Operations Date - [Case No.NEPRA/TRF-72/EPQL-2007] - Intimation
of Determination of Tariff pursuant to Section 31(4) of the Regulation of
Generation, Transmission and Distribution of Electric Power Act (XL of 1997)**

Dear Sir,

Please find enclosed the subject Decision of the Authority along with Annexure-I, II
(09 pages) in Case No. NEPRA/TRF-72//EPQL-2007.

2. The Determination is being intimated to the Federal Government for the purpose of
notification of the approved tariff in the official gazette pursuant to Section 31(4) of the
Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997)
and Rule 16(11) of the National Electric Power Regulatory Authority Tariff (Standards and
Procedure) Rules, 1998.

3. Please note that only Order of the Authority at para 7 of the Decision relating to the
reference tariff, adjustments & indexation along with Annexure-I & II needs to be notified in
the official gazette.

Enclosure: As above

(Syed Safeer Hussain)

Secretary
Ministry of Water & Power
'A' Block, Pak Secretariat
Islamabad

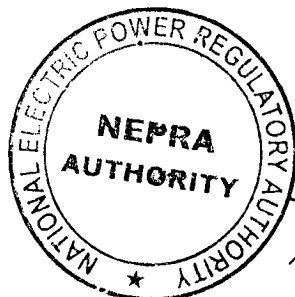
CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, Islamabad.

DECISION OF THE AUTHORITY IN THE MATTER OF
ENGRO POWERGEN QADIRPUR LIMITED TARIFF ADJUSTMENTS
ON HIGH SPEED DIESEL AND MIXED FUEL OPERATIONS
AT COMMERCIAL OPERATIONS DATE

1. National Electric Power Regulatory Authority (hereinafter "Authority") vide its decisions dated August 26, 2011 and March 5, 2012, in the matter of tariff adjustments of Engro Powergen Qadirpur Limited (herein after "EPQL") at commercial operations date (hereinafter "COD") for operations on high speed diesel (hereinafter "HSD"), had provisionally allowed EPQL net capacity for operations on HSD of 211.384 MW, with the direction to EPQL to carryout dependable capacity test for operations on HSD. The Authority also decided vide decision dated August 26, 2011 that in case of establishment of higher dependable capacity for operations on HSD, as a result of dependable capacity test, the Authority will adjust its tariff retrospectively w.e.f. COD.
2. EPQL vide its letter dated January 11, 2013 has intimated the Authority that its HSD capacity test was carried out on October 26, 2012. EPQL has submitted that it's deemed initial tested capacity on HSD can be taken as 212.861 MW and has requested the Authority to adjust its HSD and mixed fuel operations tariff at COD accordingly.
3. With respect to EPQL's request for allowing adjustments in tariff at COD for mixed fuel operations, the Authority noted that vide decision dated August 26, 2011 it has already been decided to allow adjustment in tariff at COD on mixed fuel operations to EPQL when the requisite details/documents including gas supply agreement, workings, documentary evidence for adjustment of reference calorific value of permeate gas, etc. are submitted by EPQL. The Authority noted that the requisite details/documents have not yet been submitted by EPQL, therefore the Authority has decided to allow adjustment in tariff at COD on mixed fuel operations when the necessary information is provided by EPQL.
4. The Authority further noted that summarized position of dependable capacity allowed/requested by EPQL on HSD operations is as follows:

Sr. No.		Capacity for HSD operations in MW
1	Determined by the Authority in 2007	210.900
2	Provisionally allowed in decisions of the Authority dated August 26, 2011 and March 5, 2012	211.384
3	Requested by EPQL on January 11, 2013	212.861





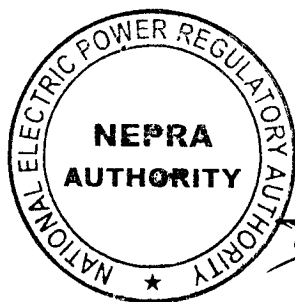
5. The Authority observed that NTDC vide its letter no. COO(CPPA)/Dir (Tech-I)/EQPL/0389-93 dated December 17, 2012, has also informed the Authority that initial dependable capacity test of EPQL for operations on HSD was carried out on October 26, 2012 and deemed initial tested capacity on HSD was established as 212.861 MW as per relevant provisions of the power purchase agreement.
6. The Authority after consideration of the aforementioned facts and in the light of opinion of its technical professionals has decided to approve the results of the test carried out by the petitioner and the power purchaser. Consequently, all the relevant tariff components which were subject to adjustment on the basis of revised net dependable capacity established for operations on HSD at the time of COD, have been revised.

7. **ORDER**

Pursuant to Rule 16 (11) of the NEPRA Tariff Standards & Procedures Rules, 1998 read with section 31 (4) of Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 Engro Powergen Qadirpur Limited (EPQL) is allowed to charge with effect from the Commercial Operations Date (COD) for operations on high speed diesel (HSD), the following tariff for delivery of electricity to the CPPA of the NTDC :

REFERENCE TARIFF

Tariff Components	Year 1 to 10	Year 11 to 25	Indexation
Capacity Charge (PKR/kW/Hour)			
Fixed O&M - Foreign	0.0098	0.0098	US\$/PKR & US CPI
- Local	0.1394	0.1394	WPI
Insurance	0.0643	0.0643	Nil
Cost of working capital	0.0549	0.0549	KIBOR
Debt service	0.7270	-	LIBOR
Return on equity	0.3510	0.3510	US\$/PKR
Return on equity during Construction	0.1291	0.1291	US\$/PKR
Total Capacity Charge	1.4755	0.7485	
Energy Charge Rs./kWh			
Fuel cost component (HSD)	14.2314	14.2314	Fuel price
Variable O&M - Foreign	0.1957	0.1957	US\$/PKR & US CPI
- Local	0.0389	0.0389	WPI
	14.4660	14.4660	



Note:

- i) Capacity Charge Rs./kW/hour is applicable to dependable capacity at the delivery point.
- ii) Dispatch criterion will be the Energy Charge.
- iii) The above tariff is applicable for a period of 25 years commencing from the date of the Commercial Operations.
- iv) Component wise tariff for operations on HSD is indicated at **Annex-I** and Debt Service Schedule at **Annex-II**.

I) Adjustment in Insurance Component

Insurance component of the reference tariff will be adjusted as per actually incurred prudent costs, subject to maximum of 1.35% of the approved EPC cost, on annual basis upon production of authentic documentary evidence by the petitioner.

II) Pass-Through Items

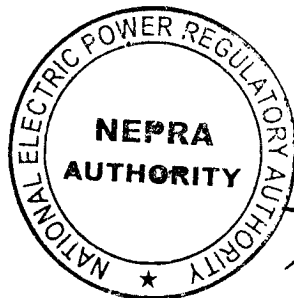
No provision for income tax has been accounted for in the tariff. If EPQL is obligated to pay any tax on its income, the exact amount paid by the company shall be reimbursed by NTDC to EPQL on production of original receipts. This payment will be considered as a pass-through (as Rs./kW/hour) hourly payment spread over a 12 months period in addition to the capacity purchase price proposed in the reference tariff. Furthermore, in such a scenario, EPQL shall also submit to NTDC details of any tax shield savings and NTDC shall deduct the amount of these savings from its payment to EPQL on account of taxation.

Withholding tax on dividend is also a pass-through item just like other taxes as indicated in the government guidelines for the determination of tariff for new IPPs. In revised tariff table withholding tax number is indicated as reference and NTDC shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 15% of reference equity i.e. hourly payment (Rs./kW/hour) spread over 12 months.

In case company does not declare a dividend in a particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what is paid in that year and the total entitlement as per the net return on equity) would be carried forward and accumulated so that the company is able to recover the same in hourly payments spread over 12 months period as a pass-through from the power purchaser in future on the basis of the total dividend payout.

III) Indexations

The following indexations shall be applicable to reference tariff:



a) **Indexation applicable to O&M**

In future fixed O&M part of capacity charge on HSD operations shall be adjusted on account of local inflation as per wholesale price index (WPI) and variation in US CPI and dollar/rupee exchange rate parity. Quarterly adjustment for local inflation, foreign inflation and exchange rate variation shall be made on 1st July, 1st October, 1st January and 1st April based on the latest available information with respect to WPI notified by the Federal Bureau of Statistics, US CPI notified by the US Bureau of Labor Statistics and revised TT & OD selling rate of US dollar notified by the National Bank of Pakistan. The mode of indexation will be as under:

i) **Fixed O&M**

$$F O\&M(d)_{(LREV)} = \text{Rs. } 0.1394 \text{ per kW per hour} * WPI_{(REV)} / 159.31$$

$$F O\&M(d)_{(FREX)} = \text{Rs. } 0.0098 \text{ per kW per hour} * US CPI_{(REV)} / 216.741 * ER_{(REV)} / 84.20$$

Where:

$F O\&M(d)_{(LREV)}$ = The revised applicable fixed O&M local component on HSD operations of the capacity charge indexed with WPI

$F O\&M(d)_{(FREX)}$ = The revised applicable fixed O&M foreign component on HSD operations of the capacity charge indexed with US CPI and exchange rate variations

$WPI_{(REV)}$ = The revised wholesale price index (manufacturers)

$WPI_{(REF)}$ = 159.31 wholesale price index (manufacturers) of February 2010 notified by the Federal Bureau of Statistics

$US CPI_{(REV)}$ = The revised US CPI (all urban consumers)

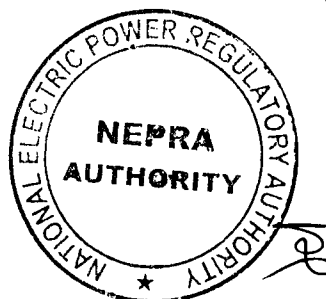
$US CPI_{(REF)}$ = 216.741 US CPI (all urban consumers) for the month of February 2010 as notified by the US Bureau of Labor Statistics

$ER_{(REV)}$ = The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

Note:- The above revised reference O&M cost components of tariff shall be adjusted on quarterly basis for variations in WPI, US CPI and US\$/Rs. exchange rate variation.

ii) **Variable O&M**

The formula of indexation for variable O & M component on HSD operations will be as under:



$$V O\&M(d)_{(LREV)} = \text{Rs. } 0.0389 \text{ per kW per hour} * WPI_{(REV)} / 159.31$$

$$V O\&M(d)_{(FREV)} = \text{Rs. } 0.1957 \text{ per kW per hour} * US CPI_{(REV)} / 216.741 * ER_{(REV)} / 84.20$$

Where:

$V O\&M(d)_{(LREV)}$	=	The revised applicable variable O&M local component on HSD operations of the energy charge indexed with WPI
$V O\&M(d)_{(FREV)}$	=	The revised applicable variable O&M foreign component on HSD operations of the energy charge indexed with US CPI and exchange rate variations
$WPI_{(REV)}$	=	The revised wholesale price index (manufacturers)
$WPI_{(REF)}$	=	159.31 wholesale price index (manufacturers) of February 2010 notified by the Federal Bureau of Statistics
$US CPI_{(REV)}$	=	The revised US CPI (all urban consumers)
$US CPI_{(REF)}$	=	216.741 US CPI (all urban consumers) for the month of February 2010 as notified by the US Bureau of Labor Statistics
$ER_{(REV)}$	=	The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

Note:- The above revised reference O&M cost components of tariff shall be adjusted on quarterly basis for variations in WPI, US CPI and US\$/Rs. exchange rate variation.

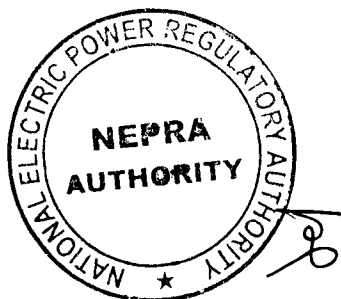
b) Adjustment for LIBOR variation

The interest part of fixed charge component will remain unchanged throughout the term except for the adjustment due to variations in interest rate as a result of variation in quarterly LIBOR according to the following formula:

$$\Delta I = P_{(REV)} * (LIBOR_{(REV)} - 0.29\%) / 4$$

Where:

ΔI = The variation in interest charges applicable corresponding to variation in LIBOR. ΔI can be positive or negative depending upon whether $LIBOR_{(REV)}$ is > or < 0.29%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each quarter under adjustment on quarterly basis.



$P_{(REV)}$ = The outstanding principal (as indicated in the attached debt service schedule to this order) on a quarterly basis on the relevant quarterly calculations date.

Cost of working capital component will be adjusted on the basis of quarterly variation in reference KIBOR (12.36%) with spread (200 basis points) remaining the same.

c) Fuel Price Variation

The variable charge part of the tariff relating to fuel cost shall be adjusted on account of the fuel price variations. In this regard, the variation in EPQL's allowed rate relating to fuel cost shall be revised according to the following formula:

$$FC(d)_{(REV)} = (Rs. 14.2314 \text{ per kWh} * FP(d)_{(REV)}) / Rs. 63.84 \text{ per Litre}$$

Where:

$FC(d)_{(REV)}$ = Revised fuel cost component of variable charge on HSD operations
 $FP(d)_{(REV)}$ = Revised fuel price (HSD)

d) Adjustment in Return on Equity (ROE)

ROE component of tariff on HSD operations shall be adjusted on account of exchange rate variation according to the following formula:

$$ROE(d)_{(REV)} = Rs.0.3510 \text{ per kW per hour} * ER_{(REV)} / ER_{(REF)}$$

Where:

$ROE(d)_{(REV)}$ = The revised ROE component of the capacity purchase price on HSD operations
 $ER_{(REV)}$ = The revised TT & OD selling rate of US\$ as notified by the National Bank of Pakistan
 $ER_{(REF)}$ = The reference exchange rate of PKR 84.20 = 1 US\$.

e) Adjustment on Return on Equity during Construction (ROEDC)

ROEDC component of tariff on HSD operations shall be adjusted on account of exchange rate variation according to the following formula:



$$ROEDC(d)_{(Rev)} = Rs.0.1291 \text{ per kW per hour} * ER_{(Rev)} / ER_{(Ref)}$$

Where:

ROEDC(d)_(Rev) = The revised ROEDC component of the capacity purchase price on HSD operations

ER_(Rev) = The revised TT & OD selling rate of US\$ as notified by the National Bank of Pakistan

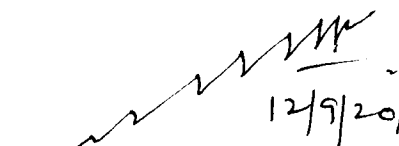
ER_(Ref) = The reference exchange rate of PKR 84.20= 1 US\$.


Adjustments on account of local inflation, foreign inflation, exchange rate variation, KIBOR/LIBOR variation and fuel price variation will be approved and announced by the Authority for immediate application in accordance with the requisite indexation mechanism stipulated herein.

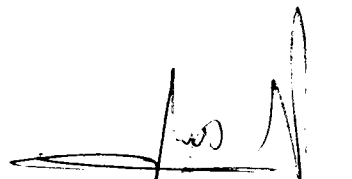
IV) Terms and Conditions of Tariff:

- i) Use of permeate gas will be considered as primary fuel.
- ii) The terms and conditions stipulated in the earlier determinations of the Authority, for operations of HSD, need to be adhered to by EPQL.
- iii) Dispatch criterion will be based on the energy charge.
- iv) General assumptions of EPQL, which are not covered in this and earlier determinations, may be dealt with according to standard terms of PPA.


AUTHORITY


12/9/2013
(Habibullah Khilji)
Member


16/9/13
(Maj (R) Haroon Rashid)
Member


11/9/11
(Khawaja Muhammad Naeem)
Vice Chairman/Member




17-09-13

ENGRO POWERGEN QADIRPUR LIMITED
Specified Tariff (HSD)

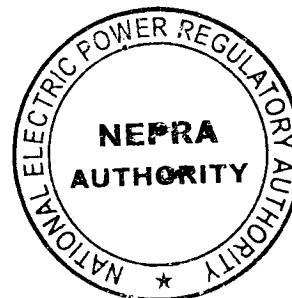
Annexure I

Year	Variable Charge (PKR/kWh)			
	Fuel	Variable O&M Local	Variable O&M Foreign	Total
1	14.2314	0.0389	0.1957	14.4660
2	14.2314	0.0389	0.1957	14.4660
3	14.2314	0.0389	0.1957	14.4660
4	14.2314	0.0389	0.1957	14.4660
5	14.2314	0.0389	0.1957	14.4660
6	14.2314	0.0389	0.1957	14.4660
7	14.2314	0.0389	0.1957	14.4660
8	14.2314	0.0389	0.1957	14.4660
9	14.2314	0.0389	0.1957	14.4660
10	14.2314	0.0389	0.1957	14.4660
11	14.2314	0.0389	0.1957	14.4660
12	14.2314	0.0389	0.1957	14.4660
13	14.2314	0.0389	0.1957	14.4660
14	14.2314	0.0389	0.1957	14.4660
15	14.2314	0.0389	0.1957	14.4660
16	14.2314	0.0389	0.1957	14.4660
17	14.2314	0.0389	0.1957	14.4660
18	14.2314	0.0389	0.1957	14.4660
19	14.2314	0.0389	0.1957	14.4660
20	14.2314	0.0389	0.1957	14.4660
21	14.2314	0.0389	0.1957	14.4660
22	14.2314	0.0389	0.1957	14.4660
23	14.2314	0.0389	0.1957	14.4660
24	14.2314	0.0389	0.1957	14.4660
25	14.2314	0.0389	0.1957	14.4660
Levelized Tariff (1-25 Years)				14.4660

Capacity Charge (PKR/kW/Hour)									
Fixed O&M Local	Fixed O&M Foreign	Insurance	Financing Cost on Working Capital	Return on Equity	Return on Equity for Construction Period	Withholding Tax @7.5%	Loan Repayment	Interest Charges	Total
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.5304	0.1965	1.5115
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.5481	0.1789	1.5115
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.5663	0.1606	1.5115
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.5852	0.1418	1.5115
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.6047	0.1223	1.5115
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.6248	0.1022	1.5115
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.6456	0.0814	1.5115
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.6671	0.0599	1.5115
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.6893	0.0377	1.5115
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.7123	0.0147	1.5115
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360			0.7846
0.1394	0.0098	0.0643	0.0549	0.3510	0.1291	0.0360	0.4074	0.0847	1.2767

Net Capacity at COD
Exchange Rate at COD
Fuel Price (Inclusive of Freight)
US CPI
WPI (Manufacturers)
Levelized Tariff at 60% plant factor

212.861 MW
84.20 Rs./US \$
63.83 Rs./Litre (excluding sales tax)
216.74
159.31
Rs.16.5937 per kWh (or US Cent 19.7075)



ENGRO POWERGEN QADIRPUR LIMITED
Debt Servicing Schedule on HSD

Period	LIBOR Premium	0.29% 3.00%	Mark-Up	Balance	Debt Service	Annual Principle Repayment \$ Million	Annual Interest \$ Million	Annual Principle Repayment Rs. Million	Annual Interest Rs. Million	Principal Repayment Rs./kW/ Month	Interest Rs./kW/ Month	Annual Debt Service Rs/kW/Hour
	Principle Million \$	Repayment Million \$										
1	136.7218	2.9007	1.1241	133.8212	4.0248							
2	133.8212	2.9245	1.1003	130.8967	4.0248							
3	130.8967	2.9485	1.0762	127.9481	4.0248							
4	127.9481	2.9728	1.0520	124.9754	4.0248	11.7465	4.3526	989.0536	366.4856	0.5304	0.1965	0.7270
5	124.9754	2.9972	1.0275	121.9781	4.0248							
6	121.9781	3.0219	1.0029	118.9563	4.0248							
7	118.9563	3.0467	0.9780	115.9095	4.0248							
8	115.9095	3.0718	0.9530	112.8378	4.0248	12.1376	3.9615	1,021.9844	333.5548	0.5481	0.1789	0.7270
9	112.8378	3.0970	0.9277	109.7408	4.0248							
10	109.7408	3.1225	0.9023	106.6183	4.0248							
11	106.6183	3.1482	0.8766	103.4701	4.0248							
12	103.4701	3.1740	0.8507	100.2961	4.0248	12.5417	3.5573	1,056.0117	299.5275	0.5663	0.1606	0.7270
13	100.2961	3.2001	0.8246	97.0959	4.0248							
14	97.0959	3.2264	0.7983	93.8695	4.0248							
15	93.8695	3.2530	0.7718	90.6165	4.0248							
16	90.6165	3.2797	0.7450	87.3368	4.0248	12.9593	3.1398	1,091.1720	264.3672	0.5852	0.1418	0.7270
17	87.3368	3.3067	0.7181	84.0301	4.0248							
18	84.0301	3.3339	0.6909	80.6962	4.0248							
19	80.6962	3.3613	0.6635	77.3349	4.0248							
20	77.3349	3.3889	0.6358	73.9460	4.0248	13.3908	2.7083	1,127.5029	228.0363	0.6047	0.1223	0.7270
21	73.9460	3.4168	0.6080	70.5292	4.0248							
22	70.5292	3.4449	0.5799	67.0844	4.0248							
23	67.0844	3.4732	0.5516	63.6111	4.0248							
24	63.6111	3.5018	0.5230	60.1094	4.0248	13.8366	2.2624	1,165.0435	190.4957	0.6248	0.1022	0.7270
25	60.1094	3.5305	0.4942	56.5788	4.0248							
26	56.5788	3.5596	0.4652	53.0193	4.0248							
27	53.0193	3.5888	0.4359	49.4304	4.0248							
28	49.4304	3.6183	0.4064	45.8121	4.0248	14.2973	1.8017	1,203.8340	151.7052	0.6456	0.0814	0.7270
29	45.8121	3.6481	0.3767	42.1640	4.0248							
30	42.1640	3.6781	0.3467	38.4859	4.0248							
31	38.4859	3.7083	0.3164	34.7776	4.0248							
32	34.7776	3.7388	0.2859	31.0387	4.0248	14.7733	1.3257	1,243.9160	111.6232	0.6671	0.0599	0.7270
33	31.0387	3.7696	0.2552	27.2692	4.0248							
34	27.2692	3.8006	0.2242	23.4686	4.0248							
35	23.4686	3.8318	0.1930	19.6368	4.0248							
36	19.6368	3.8633	0.1615	15.7735	4.0248	15.2652	0.8338	1,285.3326	70.2066	0.6893	0.0377	0.7270
37	15.7735	3.8951	0.1297	11.8784	4.0248							
38	11.8784	3.9271	0.0977	7.9513	4.0248							
39	7.9513	3.9594	0.0654	3.9919	4.0248							
40	3.9919	3.9919	0.0328	0.0000	4.0248	15.7735	0.3255	1,328.1282	27.4110	0.7123	0.0147	0.7270

