National Electric Power Regulatory Authority
Islamic Republic of Pakistan

Registrar

NEPRA Tower, Attaturk Avenue (East), G-5/1, Islamabad
Ph: +92-51-9206500, Fax: +92-51-2600026
Web: www.nepra.org.pk, E-mail: registrar@nepra.org.pk

No. NEPRA/TRF-325/TICL-2015/3845-3847
March 9, 2018

Subject: **Decision of the Authority in the Matter of Request for One-Time Adjustment of Upfront Tariff filed by Thal Industries Corporation Limited (TICL) for its Plant-1 (Layyah Sugar Mills) 41 MW (Gross Capacity) New Bagasse Based Cogeneration Power Plant, Karoor Road, Layyah, Punjab** (Case No. NEPRA/TRF-325/TICL-2015)

Dear Sir,

Please find enclosed herewith the subject Decision of the Authority along with Annexure-I & II (12 pages) in Case No. Case No. NEPRA/TRF-325/TICL-2015.

2. The subject decision 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).

3. Please note that Order of the Authority at para 5 of the Decision along with Annexure-I & II needs to be notified in the official Gazette.

Enclosure: As above

07 03 18

(Syed Safeer Hussain)

Secretary
Ministry of Energy
'A' Block, Pak Secretariat
Islamabad

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.

DECISION OF THE AUTHORITY IN THE MATTER OF REQUEST FOR ONE-TIME ADJUSTMENT OF UPFRONT TARIFF FILED BY THAL INDUSTRIES CORPORTION LIMITED (TICL) FOR ITS PLANT-I (LAYYAH SUGAR MILLS) 41 MW (GROSS CAPACITY) NEW BAGASSE BASED COGENERATION POWER PLANT, KAROOR ROAD, LAYYAH, PUNJAB.

1. National Electric Power Regulatory Authority (hereinafter referred to as the "Authority") determined the Upfront Tariff for new bagasse based co-generation projects (hereinafter referred to as "Upfront Tariff") on May 29, 2013 containing reference tariff for 30 years along with the applicable terms and conditions. Upfront Tariff was notified by Federal Government (hereinafter referred to as "GoP") vide SRO No. 771(1)/2013 dated September 3, 2013. The Upfront Tariff was modified to the extent of certain amendments in the terms and conditions on August 28, 2013 which was notified by GoP vide SRO No.938 (1)/2013 dated October 14, 2013.

2. Thal Industries Corporation Limited (hereinafter referred to as the "Applicant" or "TICL" or the "Company") vide the Authority's decision dated August 07, 2015 was granted Upfront Tariff for its 41 MW high-pressure co-generation power plant (hereinafter referred to as the "project") at Layyah Sugar Mills, Karoor Road, Layyah, Punjab.

3. Upfront Tariff was allowed to be adjusted at Commercial Operations Date (hereinafter referred to as "COD") due to changes in approved project cost owing to the variations in exchange rate and KIBOR for the construction period of 20 months starting from October 01, 2013. TICL vide its letter dated January 23, 2018 requested the Authority to allow the prescribed one-time adjustment in its tariff. Along with its request, TICL submitted the letter dated January 02, 2018 of Central Power Purchasing Agency Guarantee Limited ("CPPA-G") showing that the project has achieved its COD dated December 01, 2017.

4. In view of the above, the Authority has decided to approve the adjusted Upfront Tariff to TICL to be applicable w.e.f December 01, 2017. However, the Company shall be entitled to charge debt servicing component to power purchaser after the first indexation/ adjustment of the Upfront Tariff by the Authority.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

5. ORDER

The Authority hereby approves the following Upfront Tariff for TICL for delivery of electricity to the power purchaser.

T,ariff components	1-10 years (Rs/kWh)	11-30 years (Rs./kWh)	Indexations
Fuel Cost	5.9822	5.9822	Fuel price
Variable O&M Local	0.1197	0.1197	Local CPI
Variable O&M Foreign	0.3393	0.3393	PKR/US$, US CPI
Fixed O&M Local	0.3194	0.3194	Local CPI
Insurance	0.2204	0.2204	-
Working Capital	0.1733	0.1733	KIBOR
Debt Service	3.8970	-	KIBOR
Return on Equity	1.0346	1.0346	PKR/US$
Total	**12.0859**	**8.1888**	

i) The above reference tariff is applicable for 30 years from commencement of COD.

ii) The above tariff is applicable for new Co-generation projects based on Bagasse.

iii) The above tariff has been worked out on the basis of reference PKR/US$ rate of Rs. 101.6.

iv) The reference component wise Adjusted Upfront Tariff table is attached herewith as Annex-I

v) The reference Adjusted Debt Service schedule is attached herewith as Annex-II.

I. Pass-Through Items

If the company is obligated to pay any tax on its income from generation of electricity, or any duties and/or taxes, not being of refundable nature, are imposed on the company up to the commencement of its commercial operations for import of its plant, machinery and equipment, the exact amount paid by the company on these accounts shall be reimbursed by the power purchaser on production of original receipts. This payment should be considered as a pass-through payment spread over a twelve months period. Furthermore, in such a scenario, the company shall also submit to the power purchaser details of any tax savings and the power purchaser

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

shall deduct the amount of these savings from its payment to the company on account of taxation.

The adjustment for duties and/or taxes will be restricted only to the extent of duties and/or taxes directly imposed on the company. No adjustment for duties and/or taxes imposed on third parties such as contractors, suppliers, consultants, etc., excluding adjustment for taxes imposed on dividend as stated below, will be allowed.

Withholding tax on dividends will also be allowed as a pass through item just like other taxes. The power purchaser shall make payment on account of withholding tax at the time of actual payment of dividend, on production of original receipts, subject to maximum of 7.5% of return on equity. In case the 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 as a pass through from the power purchaser in future on the basis of the total dividend payout. Adjustment for variation in tax rate on dividend from 7.5% shall also be allowed as a pass through item by the power purchaser, after satisfying itself that tax rates have actually varied. The company shall also submit to the power purchaser details of any tax savings and the power purchaser shall deduct the amount of these savings from its payment to the company on account of taxation.

II. Indexation/adjustment

The following indexation shall be applicable to the reference upfront tariff:

a) Fuel Cost Component

Fuel cost component of tariff will be adjusted on account of variation in price of fuel (bagasse) on yearly basis in advance (w.e.f. 1st of October of each applicable year) as per the formula given hereunder.

$$FCC_{(Rev)} = FCC_{(Ref)} \times BFP_{(Rev)} / BFP_{(Ref)}$$

Where;

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

$FCC_{(Rev)}$	=	Revised fuel cost component of tariff for the applicable year.
$FCC_{(Ref)}$	=	Reference fuel cost component of tariff at the time of determination.
$BFP_{(Rev)}$	=	Revised price of bagasse in Rs./ton as determined in accordance with mechanism set out below.
$BFP_{(Ref)}$	=	Reference price of bagasse for the relevant year. Current reference price is Rs. 2,966.23/ton
$BFP_{(Rev)}$	=	$CPCIF_{(Rev)}$ x 6905/23810

Where;

$CPCIF_{(Rev)}$	=	$\{CPFOB_{(Rev)} + MF_{(Rev)} + MI_{(Rev)}\}$ x $ER_{(Rev)}$

Where;

$CPCIF_{(Rev)}$	=	Revised CIF price of coal in Rs./ton for the applicable year.
$CPFOB_{(Rev)}$	=	Revised FOB price of coal expressed in US$/ton based on monthly average of prices published in the Argus McCloskey's API4 index for the relevant year.
$MF_{(Rev)}$	=	Revised marine freight of coal per ton as worked out below.
$MF_{(Rev)}$	=	US$ 18.83 x $BIX_{(Rev)}$ / $BIX_{(Ref)}$

Where;

$BIX_{(Rev)}$	=	Revised monthly average of the daily Bunker Index price for 380-CST published by the Bunker Index for the relevant year.
$BIX_{(Ref)}$	=	Reference monthly average of the daily Bunker Index price of 380-CST published by the Bunker Index. Current reference is US$ 629.6417/ton.
$MI_{(Rev)}$	=	$CPFOB_{(Rev)}$ x 0.1%

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

$ER_{(Rev)}$ = Revised monthly average PKR/US$ exchange rate for the relevant month.

The constants such as 6905, 23810 and US$ 18.83 are fixed values representing LHV value of bagasse in btu/kg, LHV value of coal in btu/kg and fixed value of marine freight charges per ton of coal respectively.

Note:

1. Applicable year means, the year for which adjustment/indexation of fuel cost component is required starting from 1st of July and ending on 30th of June.

2. Relevant year means the year immediately preceding the applicable year for adjustment/indexation of fuel cost component.

b) O&M Cost Component

The local O&M component will be adjusted on account of local Inflation and foreign O&M component will be adjusted on account of variation in Rupee/Dollar exchange rate and US CPI. Quarterly adjustments for inflation and exchange rate variation will be made on 1st July, 1st October, 1st January & 1st April respectively on the basis of the latest available information with respect to Pakistan CPI (general), US CPI (notified by 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 Local

$$F\ O\&M_{(REV)} = O\&M_{(REF)} * CPI_{(REV)} / CPI_{(REF)}$$

Where:

$F\ O\&M_{(REV)}$ = The revised applicable Fixed O&M local component of tariff indexed with Pakistan CPI.

$O\&M_{(REF)}$ = The reference fixed O&M local component of tariff.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

$CPI_{(REV)}$ = The Revised Consumer Price Index (General) for the relevant month.

$CPI_{(REF)}$ = The Consumer Price Index (General) of 198.16 for the month of April 2015 as notified by the Federal Bureau of Statistics.

ii. Variable O&M

$V\ O\&M_{(LREV)} = O\&M_{(LREF)} * CPI_{(REV)} / CPI_{(REF)}$

$V\ O\&M_{(FREV)} = O\&M_{(FREF)} * USCPI_{(REV)} / USCPI_{(REF)} * ER_{(REV)} / ER_{(REF)}$

Where:

$V\ O\&M_{(LREV)}$ = The revised applicable Variable O&M local component of tariff indexed with CPI.

$V\ O\&M_{(FREV)}$ = The revised applicable Variable O&M foreign component of tariff indexed with US CPI and exchange rate variation.

$O\&M_{(LREF)}$ = The reference variable O&M local component of tariff.

$O\&M_{(FREF)}$ = The reference variable O&M foreign component of tariff.

$CPI_{(REV)}$ = The Revised Consumer Price Index (General) for the relevant month.

$CPI_{(REF)}$ = The Consumer Price Index (General) of 198.16 for the month of April 2015 as notified by the Federal Bureau of Statistics.

$US\ CPI_{(REV)}$ = The Revised US Consumer Price Index (All Urban Consumers) notified by the US Bureau of Labor Statistics.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

US CPI (REF) = Reference US CPI (All Urban Consumers) of 236.119 as notified by the Bureau of Labor Statistics for the month of March 2015.

ER(REV) = The revised TT&OD selling rate of US dollar as notified by the National Bank of Pakistan.

ER (REF) = Reference TT and OD selling rate of US dollar of Rs. 101.60.

c) Adjustment of working capital cost

The cost of working capital shall be adjusted on account of variation in 3-month KIBOR over the reference KIBOR of 7.99% while premium over KIBOR 2% remaining the same for the entire tariff control period.

d) Adjustment of debt servicing component

The interest part of fixed charge component will remain unchanged throughout the tariff control period except for the adjustment due to variation interest rate as a result of variation in quarterly KIBOR according to the following formula;

$$\Delta I = P_{(REV)} * (KIBOR_{(REV)} - 9.5\%) / 4$$

Where:

ΔI = the variation in interest charges applicable on local loan corresponding to variation in quarterly KIBOR. ΔI can be positive or negative depending upon whether KIBOR (REV) > or < 9.50%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each quarter under adjustment applicable on quarterly basis.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

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

e) Return on Equity

Return on equity (ROE) as well as Return on Equity during Construction (ROEDC) component of tariff shall be adjusted for variation in PKR/US$ exchange rate according to the following formula:

$ROE_{(REV)} = ROE_{(REF)} * ER_{(REV)}/ER_{(REF)}$

$ROEDC_{(REV)} = ROEDC_{(REF)} * ER_{(REV)}/ER_{(REF)}$

Where;

$ROE_{(REV)}$ = Revised Return on Equity component of tariff expressed in Rs/kWh adjusted with exchange rate variation for the relevant period.

$ROEDC_{(REV)}$ = Revised Return on Equity during Construction component of tariff in Rs/kWh adjusted with exchange rate variation for the relevant period.

$ROE_{(REF)}$ = Reference Return on Equity component of tariff expressed in Rs/kWh.

$ROEDC_{(REF)}$ = Reference Return on Equity during Construction component of tariff expressed in Rs/kWh.

$ER_{(REV)}$ = Revised TT and OD selling rate of US dollar as notified by the National Bank of Pakistan.

$ER_{(REF)}$ = Reference TT and OD selling rate of US dollar of Rs. 101.60.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

III. Terms and conditions of Upfront Tariff

i) The Upfront tariff is applicable for power generation using bagasse.

ii) The Adjusted Upfront Tariff will be applicable and become effective on December 01, 2017 (i.e. after COD).

iii) The decision of the applicant to opt for upfront tariff is irrevocable.

iv) All energy offered for sale by the Co-generation projects shall be taken by the power purchaser on priority.

v) This tariff will be applicable for a period of thirty years (30) from COD.

vi) In the Upfront Tariff no adjustment for certified emission reductions has been accounted for. However, upon actual realization of carbon credits, the same shall be distributed between the power purchaser and the power producer, in accordance with the applicable GoP Policy, as amended from time to time.

vii) The project is allowed to use other biomass fuel such as rice husk, cotton stalk etc. in combination with Bagasse or separately. However use of coal imported or local is not allowed.

viii) To safeguard interest of consumers, the Authority may review the fuel pricing mechanism stipulated above in accordance with NEPRA applicable law, after due consultation with the affected/interested parties, if it is deemed that there is exorbitant/unreasonable increase in international coal prices. Similarly, to mitigate risk to the power producer and to encourage the investors to put up bagasse based(indigenous fuel) cogeneration projects, the reference CIF coal price of US$ 100.67/ton used at the time of this determination shall be considered the floor/minimum price for the purpose of the Fuel Cost Component.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

6. The EPA/PPA executed shall be consistent with all applicable documents including Generation License and NEPRA's Tariff determination for the power producer. Any provision of EPA/ PPA which is inconsistent with NEPRA's Tariff Determination shall be void to that extent and its financial impact shall not be passed on to the end consumer.

7. The order at paragraph 5 along with all annexures is recommended for notification by GoP in the official gazette in accordance with Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

AUTHORITY

6.3.18

(Himayat Ullah Khan)
Member

(Syed Masood ul Hassan Naqvi)
Member

(Saif Ullah Chattha)
Member/ Vice Chairman 7.3.2018

(Brig (R) Tariq Saddozai)
Chairman

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

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Annex-I

Reference Adjusted Upfront Tariff for 41MW (Gross) TICL Plant-I (Layyah Sugar Mills)

Year	Fuel cost component	Variable O&M Local	Variable O&M Foreign	Fixed O&M Local	Insurance	Working capital cost	Return on Equity	ROE During Construction	Loan Repayment	Interest Charges	Total Tariff
	Rs./kWh	Rs./kWh	Rs./kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs./kWh	Rs. / kWh
1	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	1.1926	2.7045	12.0859
2	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	1.3488	2.5483	12.0859
3	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	1.5254	2.3716	12.0859
4	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	1.7252	2.1718	12.0859
5	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	1.9512	1.9458	12.0859
6	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	2.2068	1.6903	12.0859
7	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	2.4958	1.4012	12.0859
8	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	2.8227	1.0743	12.0859
9	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	3.1925	0.7046	12.0859
10	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	3.6106	0.2864	12.0859
11	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
12	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
13	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
14	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
15	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
16	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
17	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
18	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
19	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
20	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
21	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
22	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
23	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
24	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
25	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
26	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
27	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
28	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
29	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
30	5.9822	0.1197	0.3393	0.3194	0.2204	0.1733	0.9380	0.0965	-	-	8.1888
Levelized Tariff	**5.9822**	**0.1197**	**0.3393**	**0.3194**	**0.2204**	**0.1733**	**0.9380**	**0.0965**	**1.3073**	**1.2328**	**10.7290**

Levelized Tariff (1-30 years) discounted at 10% per annum = US Cents 10.5601/kWh at reference exchange rate of 1US$=Rupees 101.60

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

Reference Adjusted Upfront Tariff for 41MW (Gross) TICL Plant-I (Layyah Sugar Mills)
Debt Servicing Schedule For the purpose of Indexation Only (Foreign and/or Local Loan)

	Local Debt					Local Debt					Annual	Annual	Annual Debt
Period	Principal Million $	Repayment Million $	Mark-Up Million $	Balance Million $	Debt Service Million $	Principal Million Rs.	Repayment Million Rs.	Mark-Up Million Rs.	Balance Million Rs.	Debt Service Million Rs.	Principal Repayment Rs./kWh	Interest Rs./kWh	Service Rs./kWh
	0.7836	0.0101	0.0245	0.7735	0.0346	79.6104	1.0262	2.4878	78.5842	3.5141	0.2845	0.6897	0.9743
	0.7735	0.0104	0.0242	0.7630	0.0346	78.5842	1.0583	2.4558	77.5259	3.5141	0.2934	0.6808	0.9743
	0.7630	0.0107	0.0238	0.7523	0.0346	77.5259	1.0914	2.4227	76.4345	3.5141	0.3026	0.6717	0.9743
	0.7523	0.0111	0.0235	0.7412	0.0346	76.4345	1.1255	2.3886	75.3090	3.5141	0.3120	0.6622	0.9743
1	0.7836	0.0423	0.0960	0.7412	0.1383	79.6104	4.3015	9.7548	75.3090	14.0563	1.1926	2.7045	3.8970
	0.7412	0.0114	0.0232	0.7298	0.0346	75.3090	1.1607	2.3534	74.1483	3.5141	0.3218	0.6525	0.9743
	0.7298	0.0118	0.0228	0.7180	0.0346	74.1483	1.1969	2.3171	72.9514	3.5141	0.3318	0.6424	0.9743
	0.7180	0.0121	0.0224	0.7059	0.0346	72.9514	1.2343	2.2797	71.7170	3.5141	0.3422	0.6320	0.9743
	0.7059	0.0125	0.0221	0.6933	0.0346	71.7170	1.2729	2.2412	70.4441	3.5141	0.3529	0.6213	0.9743
2	0.7412	0.0479	0.0905	0.6933	0.1383	75.3090	4.8649	9.1914	70.4441	14.0563	1.3488	2.5483	3.8970
	0.6933	0.0129	0.0217	0.6804	0.0346	70.4441	1.3127	2.2014	69.1314	3.5141	0.3639	0.6103	0.9743
	0.6804	0.0133	0.0213	0.6671	0.0346	69.1314	1.3537	2.1604	67.7777	3.5141	0.3753	0.5989	0.9743
	0.6671	0.0137	0.0208	0.6534	0.0346	67.7777	1.3960	2.1181	66.3817	3.5141	0.3870	0.5872	0.9743
	0.6534	0.0142	0.0204	0.6392	0.0346	66.3817	1.4396	2.0744	64.9420	3.5141	0.3991	0.5751	0.9743
3	0.6933	0.0542	0.0842	0.6392	0.1383	70.4441	5.5021	8.5542	64.9420	14.0563	1.5254	2.3716	3.8970
	0.6392	0.0146	0.0200	0.6246	0.0346	64.9420	1.4846	2.0294	63.4574	3.5141	0.4116	0.5626	0.9743
	0.6246	0.0151	0.0195	0.6095	0.0346	63.4574	1.5310	1.9830	61.9264	3.5141	0.4245	0.5498	0.9743
	0.6095	0.0155	0.0190	0.5940	0.0346	61.9264	1.5789	1.9352	60.3475	3.5141	0.4377	0.5365	0.9743
	0.5940	0.0160	0.0186	0.5779	0.0346	60.3475	1.6282	1.8859	58.7193	3.5141	0.4514	0.5228	0.9743
4	0.6392	0.0612	0.0771	0.5779	0.1383	64.9420	6.2228	7.8335	58.7193	14.0563	1.7252	2.1718	3.8970
	0.5779	0.0165	0.0181	0.5614	0.0346	58.7193	1.6791	1.8350	57.0402	3.5141	0.4655	0.5087	0.9743
	0.5614	0.0170	0.0175	0.5444	0.0346	57.0402	1.7316	1.7825	55.3086	3.5141	0.4801	0.4942	0.9743
	0.5444	0.0176	0.0170	0.5268	0.0346	55.3086	1.7857	1.7284	53.5229	3.5141	0.4951	0.4792	0.9743
	0.5268	0.0181	0.0165	0.5087	0.0346	53.5229	1.8415	1.6726	51.6814	3.5141	0.5105	0.4637	0.9743
5	0.5779	0.0693	0.0691	0.5087	0.1383	58.7193	7.0378	7.0185	51.6814	14.0563	1.9512	1.9458	3.8970
	0.5087	0.0187	0.0159	0.4900	0.0346	51.6814	1.8990	1.6150	49.7824	3.5141	0.5265	0.4478	0.9743
	0.4900	0.0193	0.0153	0.4707	0.0346	49.7824	1.9584	1.5557	47.8240	3.5141	0.5429	0.4313	0.9743
	0.4707	0.0199	0.0147	0.4508	0.0346	47.8240	2.0196	1.4945	45.8045	3.5141	0.5599	0.4143	0.9743
	0.4508	0.0205	0.0141	0.4303	0.0346	45.8045	2.0827	1.4314	43.7218	3.5141	0.5774	0.3968	0.9743
6	0.5087	0.0783	0.0600	0.4303	0.1383	51.6814	7.9597	6.0966	43.7218	14.0563	2.2068	1.6903	3.8970
	0.4303	0.0211	0.0134	0.4092	0.0346	43.7218	2.1478	1.3663	41.5740	3.5141	0.5955	0.3788	0.9743
	0.4092	0.0218	0.0128	0.3874	0.0346	41.5740	2.2149	1.2992	39.3591	3.5141	0.6141	0.3602	0.9743
	0.3874	0.0225	0.0121	0.3649	0.0346	39.3591	2.2841	1.2300	37.0750	3.5141	0.6333	0.3410	0.9743
	0.3649	0.0232	0.0114	0.3417	0.0346	37.0750	2.3555	1.1586	34.7195	3.5141	0.6530	0.3212	0.9743
7	0.4303	0.0886	0.0497	0.3417	0.1383	43.7218	9.0022	5.0541	34.7195	14.0563	2.4958	1.4012	3.8970
	0.3417	0.0239	0.0107	0.3178	0.0346	34.7195	2.4291	1.0850	32.2904	3.5141	0.6735	0.3008	0.9743
	0.3178	0.0247	0.0099	0.2932	0.0346	32.2904	2.5050	1.0091	29.7855	3.5141	0.6945	0.2798	0.9743
	0.2932	0.0254	0.0092	0.2677	0.0346	29.7855	2.5833	0.9308	27.2022	3.5141	0.7162	0.2581	0.9743
	0.2677	0.0262	0.0084	0.2415	0.0346	27.2022	2.6640	0.8501	24.5382	3.5141	0.7386	0.2357	0.9743
8	0.3417	0.1002	0.0381	0.2415	0.1383	34.7195	10.1814	3.8749	24.5382	14.0563	2.8227	1.0743	3.8970
	0.2415	0.0270	0.0075	0.2145	0.0346	24.5382	2.7473	0.7668	21.7909	3.5141	0.7617	0.2126	0.9743
	0.2145	0.0279	0.0067	0.1866	0.0346	21.7909	2.8331	0.6810	18.9578	3.5141	0.7855	0.1888	0.9743
	0.1866	0.0288	0.0058	0.1578	0.0346	18.9578	2.9216	0.5924	16.0362	3.5141	0.8100	0.1642	0.9743
	0.1578	0.0297	0.0049	0.1282	0.0346	16.0362	3.0129	0.5011	13.0232	3.5141	0.8353	0.1389	0.9743
9	0.2415	0.1133	0.0250	0.1282	0.1383	24.5382	11.5150	2.5413	13.0232	14.0563	3.1925	0.7046	3.8970
	0.1282	0.0306	0.0040	0.0976	0.0346	13.0232	3.1071	0.4070	9.9161	3.5141	0.8614	0.1128	0.9743
	0.0976	0.0315	0.0030	0.0661	0.0346	9.9161	3.2042	0.3099	6.7119	3.5141	0.8883	0.0859	0.9743
	0.0661	0.0325	0.0021	0.0335	0.0346	6.7119	3.3043	0.2097	3.4076	3.5141	0.9161	0.0582	0.9743
	0.0335	0.0335	0.0010	0.0000	0.0346	3.4076	3.4076	0.1065	0.0000	3.5141	0.9447	0.0295	0.9743
10	0.1282	0.1282	0.0102	0.0000	0.1383	13.0232	13.0232	1.0331	0.0000	14.0563	3.6106	0.2864	3.8970