



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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No. NEPRA/R/ADG(Trf)/TRF-518/ASPL-2020/45934-45936
December 29, 2021

Subject: Decision of National Electric Power Regulatory Authority in the matter of Tariff Petition filed by Access Solar (Private) Ld. regarding approval of Prior Period Development Costs under the Reference Generation Tariff (Case No. NEPRA/TRF-518/ASPL-2020)

Dear Sir,

Please find enclosed herewith subject Decision of the Authority (11 Pages) in Case No. NEPRA/TRF-518/ASPL-2020.

2. The Decision is being intimated to the Federal Government for the purpose of notification in the official Gazette pursuant to Section 31 (7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.
3. The Order Part along with Annex-I (Reference Tariff Table) & Annex-II (Debt Servicing Schedule) of the Decision are to be notified in the Official Gazette.

Enclosure: As above

(Iftikhar Ali Khan)

Secretary
Ministry of Energy (Power Division)
'A' Block, Pak Secretariat
Islamabad

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



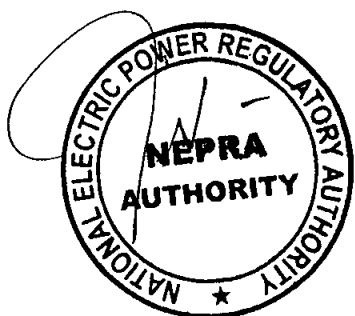
**DECISION OF NATIONAL ELECTRIC POWER REGULATORY AUTHORITY IN THE MATTER OF
TARIFF PETITION FILED BY M/S ACCESS SOLAR (PRIVATE) LIMITED REGARDING APPROVAL OF
PRIOR PERIOD DEVELOPMENT COSTS UNDER THE REFERENCE GENERATION TARIFF**

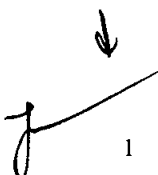
1. M/s Access Solar (Pvt.) Limited (hereinafter referred to as the "ASPL" or "the petitioner" or "the company/project company") filed a tariff petition vide its letter dated August 5, 2021 under Section 7 and 31 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 ("NEPRA Act") and Rule 3 of the NEPRA (Tariff Standards & Procedure) Rules, 1998 ("Tariff Rules") and enabling provisions of the law for approval of Prior Period Development Costs ("PPDC") in respect of its 11.52 MWp solar PV power project ("the Project") envisaged to be set up at Pind Dadan Khan, District Jhelum, Punjab.
2. Through the said tariff petition, ASPL requested the Authority for approval of PPDC of Rs.131.196 million in accordance with the Decision of the Authority issued on July 29, 2021 in the matter of modification of Tariff Determination dated December 30 2020. Following provision with regard to the PPDC was given in the aforesaid Decision:

"The Authority also considered the request of the petitioner with respect to allowing prior development cost. It was noted that the petitioner was asked to provide the information about those claims, however, ASPL submitted that it shall be submitting the same at the time of adjustment of tariff at COD. The Authority considered these details and decided that the compensation of legitimate cost of the project company due to its prolonged development period would be given due deliberations on the basis of verifiable documentary evidence before the financial close. For that purpose, the petitioner shall be required to file the tariff petition following the relevant provisions of applicable law"

3. The PPDC of Rs.131.196 million has been claimed from Financial Year (FY), 2012 to FY, 2020; detailed breakup of which is given hereunder:

Description	Amount Million Rs.
Consultancy Fee	17.250
Audit Fee	0.510
Lenders Fee & Charges	5.444
Litigation Fee	9.333
Regulatory Fee	12.850
Technical Studies	4.410
Administrative Expenses	81.399
Total	131.196

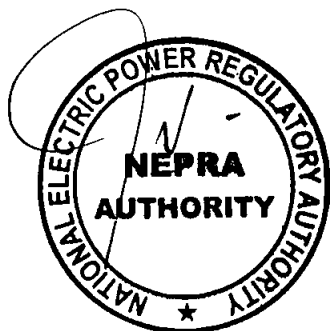



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4. Copies of the following documents were submitted by ASPL in support of its claim for PPDC:
- Contracts/Agreements/Purchase orders/emails;
 - Invoices;
 - Payment instruments including bank statements;
 - Computerised payment receipt issued by Federal Board of Revenue (FBR);
 - Audited Financial Statements for the FY from 2012 till 2020.
5. The Authority has noted that the proceedings for the Upfront Tariff, opted by ASPL, were initiated in May, 2012. As the claim of PPDC was recognized by the Authority for non-notification of ASPL's upfront tariff, therefore, the development expenses incurred by ASPL before the start of the proceedings of 1st upfront tariff i.e. the cost pertaining to FY 2012 (Rs. 15.244 million) is not considered in the PPDC.
6. Further, it is noted that ASPL has already been allowed Project Development Cost ("PDC") of about Rs. 46.00 million in the Tariff Determination dated December 30, 2020. It is found that LOIs were obtained by solar PV projects (whose tariffs are determined under cost plus regimes) about two years prior to filing of tariff petitions. In this way, PDC allowed to these companies cover the development expenses of those two years also. As the tariff petition was filed by the ASPL on March 24, 2020, therefore, the approved PDC is considered to cover the expenses from FY 2019. Accordingly, the claim of PPDC has been restricted till FY ending June 30, 2018. That is, the claim of Rs. 17.345 million, pertaining to FY 2019 and 2020, has not been considered.
7. Accordingly, the claimed amount pertaining to the period starting from FY 2013 till FY 2018 works out to be Rs. 98.606 million.
8. Based on the verification of the documentary evidence as submitted by the Petitioner, the PPDC being approved works out to be Rs. 72.832 million. Produced below is the comparison of claimed Vs approved PPDC;

Description	Claimed Amount Million Rs.	Approved Amount Million Rs.
Consultancy Fee	15.480	12.362
Audit Fee	0.341	0.207
Lenders Fee & Charges	5.444	4.624
Litigation Fee	9.164	3.000
Regulatory Fee	10.738	1.130
Technical Studies	0.958	0.250
Administrative Expenses	56.481	51.259
Total	98.606	72.832



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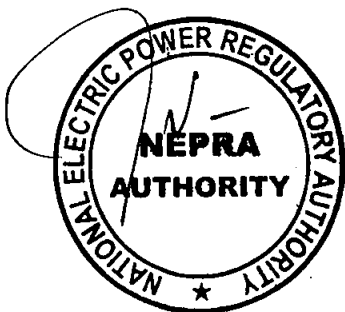


9. The broad reasons of difference of Rs. 25.774 million are (i) Rs. 11.920 million found not justified mainly on the pretext of the costs being not in the scope of the relevant contracts, (ii) Rs. 13.513 million could not be verified as complete documents of the same were not provided, (iii) Rs. 0.267 million of adjustable sales tax, (iv) Rs. 0.074 million due to exchange rates difference.
10. In view of the above, the Authority has decided to allow Rs. 72.832 million as PPDC to ASPL. The approved amount is being included in the project cost approved for ASPL in the Tariff Determination issued on December 30, 2020.

ORDER

11. In pursuance of section 7(3)(a) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 and NEPRA (Tariff Standards & Procedure) Rules, 1998, the Authority hereby determines and approves the generation tariff along with terms and conditions for Access Solar (Pvt.) Limited (ASPL) for its 11.52 MWp solar PV power project for delivery of electricity to the power purchaser as follows:

- Levelized tariff works out to be Rs. 7.1799/kWh (US Cents 4.3148/kWh).
- The tariff has been worked out on Build, Own and Operate basis.
- EPC cost of USD 6.451 million has been approved.
- Project Development Cost of USD 0.276 million has been approved.
- Prior Period Development cost of USD 0.438 million (Rs. 72.832 million) has been approved.
- Cost of Land of USD 0.094 million has been approved
- Insurance during construction at the rate of 0.4% of the allowed EPC cost has been approved.
- Financing Fee & Charges at the rate of 2% of the debt portion of the capital cost has been approved.
- Debt to Equity ratio of 80:20 has been approved.
- Tariff has been computed using 100% local financing under SBP Scheme.
- The cost of debt of 6% (SBP Scheme) has been used.
- Debt Repayment has been scheduled for 10 years from COD.
- Equity IRR of 13% has been allowed.
- O&M Cost of USD 10,000 per MW per year has been allowed.



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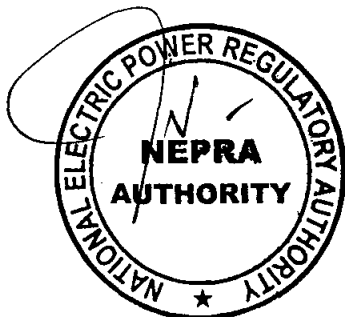
- Insurance during Operation has been calculated as 0.40% of the allowed EPC Cost.
- Construction period of 8 months has been allowed.
- Net Annual Plant Capacity Factor of 20.3505% has been approved.
- Degradation factor of 0.5% per year has been approved. The financial impact of the allowed degradation of USD 0.234 million has been taken into account in the approved project cost.
- Reference Exchange Rates of 166.40 PKR/USD has been used.
- IDC and ROEDC have been worked out using following drawdown schedule:

Month 1	5.00%
Month 2	5.00%
Month 3	5.00%
Month 4	15.00%
Month 5	15.00%
Month 6	15.00%
Month 7	20.00%
Month 8	20.00%

- Detailed component wise tariff is attached as **Annex-I** of this determination.
- Debt Servicing Schedule is attached as **Annex-II** of this determination.

A. One Time Adjustments at COD

- The EPC cost shall be verified and adjusted at actual considering the approved amount as the maximum limit. Applicable foreign portion of the EPC cost will be adjusted at COD on account of variation in PKR/USD parity during the construction period, on production of authentic documentary evidence by the petitioner to the satisfaction of the Authority. The adjustment in applicable foreign portion of the approved EPC cost shall be made for the currency fluctuation against the reference parity values.
- PDC including land cost, Insurance during construction and Financing Fee and Charges shall be adjusted at actual at the time of COD considering the approved amount as the maximum limit. The amounts allowed on these accounts in USD will be converted in PKR using the reference PKR/USD rate of 166.40 to calculate the maximum limit of the amount to be allowed at COD.
- Duties and/or taxes, not being of refundable nature, relating to the construction period directly imposed on the company up to COD will be allowed at actual upon production of verifiable documentary evidence to the satisfaction of the Authority.





- The tariff has been determined on debt : equity ratio of 80 : 20. The tariff shall be adjusted on actual debt : equity mix at the time of COD, subject to equity share of not more than 20%. For equity share of more than 20%, allowed IRR shall be neutralized for the additional cost of debt : equity ratio.
- IDC will be recomputed at COD on the basis of actual timing of debt draw downs (for the overall debt allowed by the Authority at COD) for the project construction period of 08 months starting from the date of financial close.
- For full/part of commercial foreign or local loan or a mix of both, if applicable and availed by the company, the IDC shall also be allowed adjustment for change in applicable LIBOR/KIBOR.
- The reference tariff has been worked out on the basis of cost of 6% stated under SBP financing scheme. In case cost negotiated by the company under SBP scheme is less than the said limit of 6%, the savings in that cost shall be shared between the power purchaser and the power producer in the ratio of 60:40 respectively.
- For full or part of commercial local or foreign loan, if any, the savings in the approved spreads shall be shared between the power purchaser and power producer in the ratio of 60:40.
- ROEDC will be adjusted at COD on the basis of actual equity injections (within the overall equity allowed by the Authority at COD) during the project construction period of 08 months from the date of financial close.

B. Indexations during operations

Insurance shall be allowed adjustment on yearly basis starting from either 1st July or 1st January. ROE, ROEDC and O&M Components shall be adjusted on quarterly basis to be applicable from 1st July, 1st October, 1st January and 1st April. Adjustment of Debt Servicing Component (if any) shall be made either quarterly/bi-annually/annual, depending upon the final terms approved by the Authority at the time of COD. The indexation mechanisms are given hereunder:

i) Operation and Maintenance Costs

O&M component of tariff shall be adjusted on account of change in local Inflation (N-CPI) as notified by the Pakistan Bureau of Statistics according to the following mechanism:

L. O&M (REV)	=	L. O&M (REF) * CPI (REV) / CPI (REF)
Where;		
L. O&M (REV)	=	The revised O&M Local Component of Tariff
L. O&M (REF)	=	The reference O&M Local Component of Tariff
CPI (REV)	=	The revised CPI (General)
N-CPI (REF)	=	The reference N-CPI (General) of 136.23 for the month of August, 2020



Note: The reference index of N-CPI shall be revised for making the required adjustments in O&M component at the time of COD. For the adjustment of O&M component at COD, the revised N-CPI value for the middle month of preceding quarter prior to the date of COD shall be considered. Thereafter, the N-CPI value taken at COD shall become reference for subsequent adjustments in the O&M component.

ii) **Insurance during Operation**

The actual insurance cost for the minimum cover required under contractual obligations with the power purchaser, not exceeding 0.4% of the approved EPC cost, will be treated as pass through. Insurance component of reference tariff shall be adjusted annually as per actual upon production of authentic documentary evidence according to the following formula:

AIC	=	$\text{Ins (Ref) / P (Ref) * P (Act)}$
Where;		
AIC	=	Adjusted insurance component of tariff
Ins (Ref)	=	Reference insurance component of tariff
P (Ref)	=	Reference premium @ 0.4% of approved EPC Cost at Rs. 166.40/USD
P (Act)	=	Actual premium or 0.4% of the approved EPC Cost converted into Pak Rupees on exchange rate prevailing on 1 st day of the insurance coverage period, whichever is lower

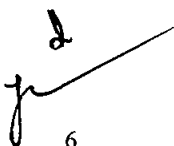
iii) **Return on Equity**

The ROE (ROE + ROEDC) components of the tariff will be adjusted quarterly on account of change in USD/PKR parity. The variation relating to these components shall be worked out according to the following formula:

ROE (Rev)	=	$\text{ROE (Ref) * ER (Rev) / ER (Ref)}$
Where;		
ROE (Rev)	=	Revised ROE Component of Tariff
ROE (Ref)	=	Reference ROE Component of Tariff
ER (Rev)	=	The revised TT & OD selling rate of US dollar on the last day of the preceding quarter as notified by the National Bank of Pakistan
ER (Ref)	=	The reference TT & OD selling rate of Rs. 166.40/USD

Note: The reference tariff component shall be revised after making the required adjustments at the time of COD.




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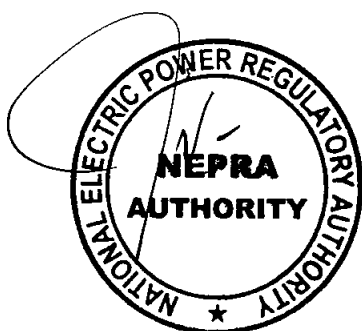
C. Terms and Conditions

The following terms and conditions shall apply to the determined tariff:

- All plant and equipment shall be new and of acceptable standards. The verification of the plant and equipment will be done by the Independent Engineer, duly appointed by the power purchaser, at the time of the commissioning of the plant.
- This tariff will be limited to the extent of net annual energy generation supplied to the power purchaser up to 20.3505% net annual plant capacity factor. Net annual energy generation supplied to the power purchaser in a year, in excess of 20.3505%, will be charged at the following tariffs:

<u>Net annual plant capacity factor</u>	<u>% of prevalent tariff allowed to power producer</u>
Above 20.35% to 20.50%	-
Above 20.50% to 21.25%	10%
Above 21.25% to 22.00%	20%
Above 22.00% to 22.75%	30%
Above 22.75%	40%

- The risk of solar resource shall be borne by the power producer.
- The maximum plant capacity shall not exceed as given in the Generation License.
- In the above 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, amended from time to time.
- The petitioner is directed to ensure that all the equipment is installed as per the details/specifications given in the generation license/tariff as awarded by NEPRA.
- The petitioner is hereby directed to secure the maximum available loan under the SBP Scheme. The savings in the cost of financing under SBP Scheme shall be shared between power purchaser and power producer in the ratio of 60:40 at the time of COD or during any time of the loan tenor, as applicable.
- In case the company shall secure full or part of local commercial loan then the tariff of company shall be computed/adjusted at the time of COD at applicable KIBOR + spread of 2.25%. The savings in the approved spreads anytime during the loan tenor shall be

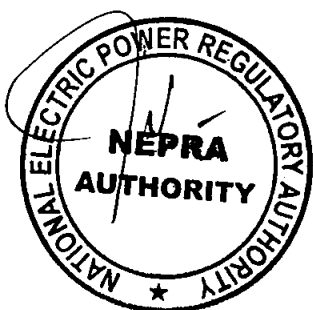


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shared between the power purchaser and power producer in the ratio of 60:40. The tenor of the debt servicing shall not be less than thirteen years for this loan.

- In case the company shall secure full or part of foreign conventional loan then the tariff of company shall be computed/adjusted at the time of COD at applicable LIBOR + spread of 4.25%. The savings in the approved spreads any time during the loan tenor shall be shared between the power purchaser and power producer in the ratio of 60:40. The tenor of the debt servicing shall not be less than thirteen years for this loan.
- In case the company shall secure foreign loan under any credit insurance (Sinosure etc.) then the cost of that insurance shall be allowed to the maximum limit of 0.6% of the approved yearly outstanding principal and interest amounts. For financing with Sinosure, the spread/margin over LIBOR shall be adjusted to the extent such that the total financing cost (applicable LIBOR + Adjusted Margin + Sinosure) shall not exceed the financing cost without Sinosure (applicable LIBOR + Approved Margin).
- The Authority may consider making changes in the O&M cost while capping the allowed prevailing level, which shall be governed under legal framework to be approved by Authority in this regard.
- In case the company earns annual profit in excess of the approved return on equity (including ROEDC), then that extra amount shall be shared between the power producer and consumers through claw back formula to be decided by the Authority through the relevant framework. For that purpose, the share of producer as given in the bonus energy mechanism shall be taken into account.
- Allowed limit of degradation has been made part of the approved project cost. No extra financial compensation shall be provided in the EPA.
- The company will have to achieve financial close within one year from the date of issuance of Tariff Determination, i.e. by December 30, 2021. The tariff granted to the company will no longer remain applicable/valid, if financial close is not achieved by the company, for whatever reason, in the abovementioned timeline or its generation license is declined/revoked by NEPRA.
- The targeted maximum construction period from prescribed date/time of financial close is 8 months. No adjustment will be allowed in this tariff to account for financial impact of any delay in project construction. However, the failure of the company to complete construction within 8 months will not invalidate the tariff granted to it.
- Pre COD sale of electricity is allowed to the power producer, subject to the terms and conditions of EPA, at the reference tariff excluding debt servicing and return components. However, pre COD sale will not alter the required COD stipulated in the EPA in any manner.



- In case 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, the exact amount paid by the company on these accounts shall be reimbursed on production of original receipts. This payment shall be considered as a pass-through payment. However, withholding tax on dividend shall not be allowed as pass through.
 - No provision for the payment of Workers Welfare Fund and Workers Profit Participation has been made in the tariff. In case, the company has to pay any such fund, that will be treated as pass through item in the EPA.
 - The approved tariff along with terms & conditions shall be made part of the EPA. General assumptions, which are not covered in this determination, may be dealt with as per the standard terms of the EPA.
12. The Order part along with 2 Annexures is recommended for notification by the Federal Government in the official gazette in accordance with Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

AUTHORITY



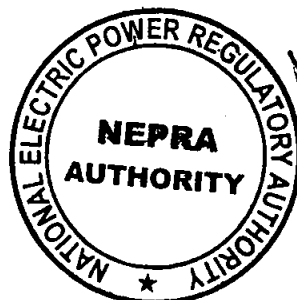
Rehmatullah Baloch
Member



Engr. Maqsood Anwar Khan
Member

Engr. Rafique Ahmed Shaikh
Member

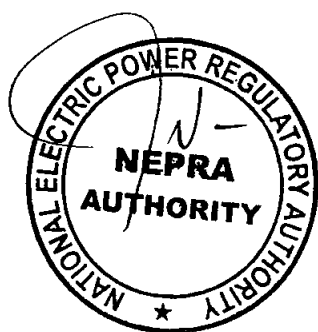
Tauseef H. Farooqi
Chairman



29/12/21

**ACCESS SOLAR (PVT) LIMITED
REFERENCE TARIFF TABLE**

Year	O&M Local	Insurance	Return on Equity	Return on Equity during Construction	Loan Repayment	Interest Charges	Tariff
	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh
1	0.9334	0.2091	1.4484	0.0578	3.7738	2.9198	9.3423
2	0.9334	0.2091	1.4484	0.0578	4.0054	2.6883	9.3423
3	0.9334	0.2091	1.4484	0.0578	4.2512	2.4425	9.3423
4	0.9334	0.2091	1.4484	0.0578	4.5120	2.1816	9.3423
5	0.9334	0.2091	1.4484	0.0578	4.7889	1.9047	9.3423
6	0.9334	0.2091	1.4484	0.0578	5.0828	1.6109	9.3423
7	0.9334	0.2091	1.4484	0.0578	5.3947	1.2990	9.3423
8	0.9334	0.2091	1.4484	0.0578	5.7257	0.9679	9.3423
9	0.9334	0.2091	1.4484	0.0578	6.0770	0.6166	9.3423
10	0.9334	0.2091	1.4484	0.0578	6.4500	0.2437	9.3423
11	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
12	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
13	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
14	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
15	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
16	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
17	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
18	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
19	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
20	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
21	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
22	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
23	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
24	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
25	0.9334	0.2091	1.4484	0.0578	-	-	2.6487
Levelized Tariff	0.9334	0.2091	1.4484	0.0578	3.2348	1.2963	7.1799



ACCESS SOLAR (PVT) LIMITED
Debt Servicing Schedule

Relevant Quarters	Base amount (Rs.)	Principal Repayment (Rs.)	Interest (Rs.)	Balance Principal (Rs.)	Total Debt Service (Rs.)	Annual Principal Repayment Rs./kWh	Annual Interest Rs./kWh
1	1,028,098,013	18,944,867	15,421,470	1,009,153,147	34,366,337	3.7738	2.9198
2	1,009,153,147	19,229,040	15,137,297	989,924,107	34,366,337		
3	989,924,107	19,517,475	14,848,862	970,406,632	34,366,337		
4	970,406,632	19,810,237	14,556,099	950,596,394	34,366,337		
5	950,596,394	20,107,391	14,258,946	930,489,003	34,366,337	4.0054	2.6883
6	930,489,003	20,409,002	13,957,335	910,080,002	34,366,337		
7	910,080,002	20,715,137	13,651,200	889,364,865	34,366,337		
8	889,364,865	21,025,864	13,340,473	868,339,001	34,366,337		
9	868,339,001	21,341,252	13,025,085	846,997,749	34,366,337	4.2512	2.4425
10	846,997,749	21,661,371	12,704,966	825,336,379	34,366,337		
11	825,336,379	21,986,291	12,380,046	803,350,087	34,366,337		
12	803,350,087	22,316,086	12,050,251	781,034,002	34,366,337		
13	781,034,002	22,650,827	11,715,510	758,383,175	34,366,337	4.5120	2.1816
14	758,383,175	22,990,589	11,375,748	735,392,586	34,366,337		
15	735,392,586	23,335,448	11,030,889	712,057,138	34,366,337		
16	712,057,138	23,685,480	10,680,857	688,371,658	34,366,337		
17	688,371,658	24,040,762	10,325,575	664,330,896	34,366,337	4.7889	1.9047
18	664,330,896	24,401,373	9,964,963	639,929,523	34,366,337		
19	639,929,523	24,767,394	9,598,943	615,162,129	34,366,337		
20	615,162,129	25,138,905	9,227,432	590,023,224	34,366,337		
21	590,023,224	25,515,988	8,850,348	564,507,235	34,366,337	5.0828	1.6109
22	564,507,235	25,898,728	8,467,609	538,608,507	34,366,337		
23	538,608,507	26,287,209	8,079,128	512,321,298	34,366,337		
24	512,321,298	26,681,517	7,684,819	485,639,780	34,366,337		
25	485,639,780	27,081,740	7,284,597	458,558,040	34,366,337	5.3947	1.2990
26	458,558,040	27,487,966	6,878,371	431,070,074	34,366,337		
27	431,070,074	27,900,286	6,466,051	403,169,788	34,366,337		
28	403,169,788	28,318,790	6,047,547	374,850,998	34,366,337		
29	374,850,998	28,743,572	5,622,765	346,107,426	34,366,337	5.7257	0.9679
30	346,107,426	29,174,725	5,191,611	316,932,701	34,366,337		
31	316,932,701	29,612,346	4,753,991	287,320,354	34,366,337		
32	287,320,354	30,056,532	4,309,805	257,263,823	34,366,337		
33	257,263,823	30,507,380	3,858,957	226,756,443	34,366,337	6.0770	0.6166
34	226,756,443	30,964,990	3,401,347	195,791,453	34,366,337		
35	195,791,453	31,429,465	2,936,872	164,361,988	34,366,337		
36	164,361,988	31,900,907	2,465,430	132,461,081	34,366,337		
37	132,461,081	32,379,421	1,986,916	100,081,661	34,366,337	6.4500	0.2437
38	100,081,661	32,865,112	1,501,225	67,216,549	34,366,337		
39	67,216,549	33,358,089	1,008,248	33,858,460	34,366,337		
40	33,858,460	33,858,460	507,877	0	34,366,337		

