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Ref. No.: Enel/India/CERC/2021/RA/16 08th October 2021

To
The Secretary
Central Electricity Regulatory Commission (CERC)
3rd & 4th Floor, Chanderlok Building, 36, Janpath
New Delhi – 110001, India

Phone: +91 – 11 – 23753915
Email: secy@cercind.gov.in

Subject: Suggestion/Comments on Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021

Reference: Public Notice L-1/260/2021/CERC dated 07.09.2021

Dear Sir

We thank you for giving us an opportunity to submit our comments on the proposed Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021. Our comments are enclosed herewith and placed at "**Annexure 1**" for your kind consideration.

We submit that penetration of RE technologies in the Indian energy mix is still at lower levels and the sector is yet to see significant investments considering the RE capacity addition target set by Govt of India. The views and observations are being proposed with the perspective of investor sentiments and to encourage further interest and investments in the sector.

We humbly request you to consider our submission favourably and do let us know should you require any further clarification.

Yours sincerely,

For Enel Green Power India Private Limited

Sandy Khera
Chief Executive Officer
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Enclosure: Annexures

ANNEXURE 1

COMMENTS ON PROPOSED DRAFT CENTRAL ELECTRICITY REGULATORY COMMISSION (DEVIATION SETTLEMENT MECHANISM AND RELATED MATTERS) REGULATIONS, 2021

S No.	Section No.	Existing Provision/Proposed Amendment	Recommended / New Provision	Justification & Suggestion
1	6(2)	6. Computation of Deviation (1) … (2) Deviation in a time block for WS sellers shall be computed as follows: Deviation-WS seller (in MWh) = [(Actual Injection in MWh) – (Scheduled generation in MWh)]. Deviation-WS seller (in %) = 100 x [(Actual Injection in MWh) – (Scheduled generation in MWh)] / [(Available Capacity)]	6. Computation of Deviation (1) … (2) Deviation in a time block for WS sellers shall be computed as follows: Deviation-WS seller (in MWh) = [(Actual Injection in MWh) – (Scheduled generation in MWh)]. Deviation-WS seller (in %) = 100 x [(Actual Injection in MWh) – (Scheduled generation in MWh)] / [(Available Capacity)] Provided that Deviation for WS sellers shall be computed on regional basis and the net deviation charges shall be apportioned among the WS sellers of respective regions.	RE Plants especially Wind and Solar technologies are of intermittent nature and it is not in control of the developer/ operator to monitor the generation from these sources in a small area of a wind farm. With such limitation, it is required that a larger domain (area) is provided to RE developers to manage the intermittency in the generation. Pooling station is considered the basic building block for forecasting and the QCAs are responsible for forecasting on behalf of RE developers connected to a pooling station. With growing maturity of the system and with Hon'ble Commission devising Draft Ancillary Services Regulations, it would be appropriate that such function of forecasting may be handled by RLDCs or any appointed agency considering regional level as the basic block for forecasting. Regional balancing will ensure better and efficient utilization of Wind and Solar technologies by allowing them a larger collective margin for deviation. It is likely that regional balancing would only have negative costs for the Indian economy and is therefore the cheapest balancing option available. This will also provide better estimation to RLDCs and the System Operator for deciding the requirement of quantum through Ancillary services. We also submit that purpose of these regulations is to achieve grid stability, integration of growing RE

<table>
<tr><th>S No.</th><th>Section No.</th><th>Existing Provision/Proposed Amendment</th><th>Recommended / New Provision</th><th>Justification & Suggestion</th></tr>
<tr><td></td><td></td><td></td><td></td><td>capacity into the grid and not to penalize RE generators for the intermittent nature of RE generation.

Thus, we request that the balancing area for RE projects especially for Wind and Solar technologies which are of intermittent nature shall be enhanced to Regional level as far as deviations are concerned.</td></tr>
<tr><td>2</td><td>8(1) Table Row 4</td><td>
<table>
<tr><th>Entity</th><th colspan="2">Charges for deviation payable to Deviation and Ancillary Service Pool Account</th></tr>
<tr><th>Seller</th><th>Deviation by way of over injection</th><th>Deviation by way of under injection</th></tr>
<tr><td>For WS seller</td><td>Payable to WS Seller from pool account for each unit over-injected @ Rs 1.00/kWh</td><td>(i) Zero up to 10% Deviation -WS seller (in %);
(ii) @ 10% of the normal rate of charges for deviation beyond 10% Deviation</td></tr>
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</td><td>
<table>
<tr><th>Entity</th><th colspan="2">Charges for deviation payable to Deviation and Ancillary Service Pool Account</th></tr>
<tr><th>Seller</th><th>Deviation by way of over injection</th><th>Deviation by way of under injection</th></tr>
<tr><td>For WS seller</td><td>Zero</td><td>(i) Zero up to 10% Deviation -WS seller (in %);
(ii) @ 10% of the ~~normal rate~~ PPA rate/contract rate of charges for deviation beyond</td></tr>
</table>
</td><td>1. It is submitted that, at the time of issuance of existing regulations and SOR, there were a lot of discussions around whether deviations for RE generators esp. the ones based on intermittent technologies of Wind and Solar need to be linked to frequency or not. During the deliberations, most of the stakeholders including CEA found comfort in the idea of delinking the same from frequency since generation from such sources are based on the principle of must run. Relevant extracts from Statement of Reasons for Second Amendment to CERC (Deviation Settlement Mechanism and related matters) notified in 2015 have been reproduced below.

“8.2.1 CEA has supported that the charges for deviation from schedule for wind/solar energy have been de-linked from the frequency. The reason given is that these sources are must run and hence should not be linked to frequency. We find this to be in order.”

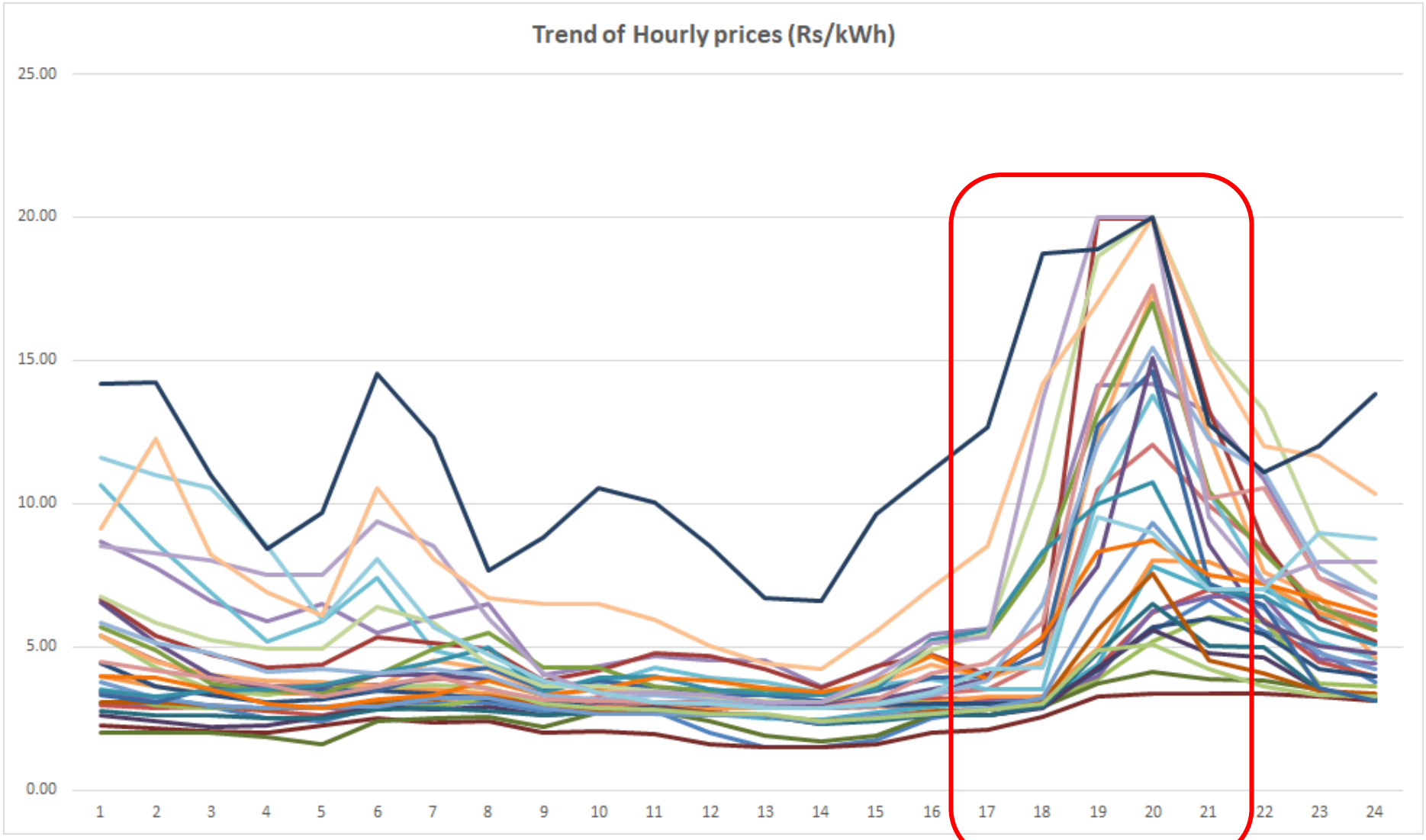
Based on above, we submit that the facts remaining the same, RE capacity addition and operation is still based on the must run principle. So, linking of deviations of such RE technologies to any parameter which does not support the principle of must run and assumes that generation shall be controlled within specified limits would not be appropriate. We submit that, while linking of deviations for such RE technologies to frequency was not found a sound approach earlier, linking the penalties for deviation now to Normal Rate</td></tr>
</table>

S No.	Section No.	Existing Provision/Proposed Amendment	Recommended / New Provision	Justification & Suggestion
		-WS seller (in %): ….	10% Deviation -WS seller (in %): ….	(i.e. time block ACP of DAM or RTM or AS) is equally inappropriate as it is compelling the RE generators to control their infirm generation to meet the varying grid requirements and bear the risks (penalties) depending on market prices which again are more or less are driven by time of day demand and supply pressures. This is evident from Annexure 2, which demonstrates that prices are usually high (except for few days, when the prices are relatively high for the whole day) during evening peaks from approx. 1700 hrs to 2200 hrs. Thus, if we are linking the deviations to these Normal Rates, the signal which is being sent is that the RE generators along with other generators are required to actually generate close to forecasts esp. during these peak hours, whereby such power/ capability to exercise such control on generation lies mainly with conventional generators and not with RE generators based on intermittent technologies of Solar and Wind. We would like to further emphasize on data furnished in Annexure 3 which demonstrates that there have been instances where hourly prices (which also implies for time block prices) have frequently shot up beyond a rate of Rs 4/kWh. If the prices been discovered in last three months (i.e Aug, Sept and Oct till date) are studied, the average would be more than Rs 5/kWh. This implies that RE generators would have to bear a penalty of more than Rs 0.50/kWh for each and every unit under-injected beyond 10% deviation which is a substantially high rate of penalty. So, while the above rates seem to be a common rate in DAM, the same is far from expectation what can be obtained in RE tenders conducted these days. This implies that if penalties for deviation of RE projects are linked to Normal Rates (i.e. DAM or RTM or AS prices), RE developers would be exposed to such high prices which are not even close to tariffs which they would be getting under respective contracts and that too for not for any fault at their end.

S No.	Section No.	Existing Provision/Proposed Amendment	Recommended / New Provision	Justification & Suggestion
				Hence, we submit that the penalties for deviation shall not be linked to market prices and shall continue to be linked to respective contract prices/PPA rates as being done in existing practice. Alternately, if penalties for deviation are linked to market prices, then the maximum penalty shall be capped at respective contract prices/ PPA rates. 2. We would also like to draw your kind attention to the proposed methodology for over-injection. While, the existing regulations allow the RE generator to recover a certain portion of tariff for over injection, the new proposed regulations do not envisage any revenue for over-injection. We submit that in such a scenario, where there is absolutely no revenue for over injection, there would be no motivation for RE generators to inject in the grid to provide support during low frequency instances and thus, would make it indifferent for RE developer whether to clip such power and waste the resource available or whether to inject this power in the grid and utilize the resource. We understand that Hon'ble Commission has plans to mitigate such issues with Ancillary services and we endorse the initiative to promote Ancillary services, slashing the over injection rates to zero would hurt not only the RE generators financially but would lead to sector not utilizing the clean intermittent economical sources at the fullest and instead using other comparatively expensive sources of power (secondary RAS and market for TRAS) to meet the needs of the grid during such low frequency instances. Hence to achieve the intent of Hon'ble Commission, i.e. to encourage the RE developers to forecast better and to maintain the health of grid with economical sources, we submit that over injection from such intermittent sources of generation shall be compensated at contract rate/PPA rate, or at the very least at a fixed rate of Rs 0.50/kWh to Rs 1.00/kWh, the way it is provided for RAS services currently over and above compensation for energy cost of RAS service providers.

S No.	Section No.	Existing Provision/Proposed Amendment	Recommended / New Provision	Justification & Suggestion
3	3 (a)	(3) (a) The charges for deviation for injection of infirm power shall be zero. (b) The charges for deviation for drawal of start-up power before COD of a generating unit or for drawal of power to run the auxiliaries during shut-down of a generating station shall be payable at the normal rate of charges for deviation.	(3) (a) The charges for deviation for injection of infirm power shall be zero. (b) The charges for deviation for drawal of start-up power before COD of a generating unit (except for WS Sellers) or for drawal of power to run the auxiliaries (except for WS Sellers) during shut-down of a generating station shall be payable at the normal rate of charges for deviation. The charges for deviation for drawal of start-up power before COD of a WS Seller or for drawal of power to run the auxiliaries of WS Seller during shut-down of a generating station shall be payable at the corresponding PPA rate/ contract rate of charges for deviation.	RE generators based on Wind and Solar technologies depend on grid for small amount of power for meeting the basic requirements of start-up power and auxiliary power (during shut down) as compared to conventional generators. These requirements are significantly low and insignificant to affect grid balancing. Thus, the proposal of linking the charges for drawal of such start-up power and auxiliary power (during shut down) to Normal Rates (i.e. DAM or RTM or AS prices) is not suggested and would be too high as cost for providing such basic support for a WS Seller. Hence, we humbly request that charges for drawal of such start-up power and auxiliary power (during shut down) shall be linked to respective contract prices/ PPA rates for the RE projects.
4			*Proposed Amendment in CERC (Indian Electricity Grid Code) Regulations ("IEGC")*	We submit that as compared to any other generation technology, the factor of intermittency is relatively much higher in RE technologies of Solar and Wind. Thus, for RE projects esp. Solar and Wind projects would be able to forecast better closer to the delivery period. Hence, we humbly submit that current restriction of allowing only 16 revisions per day as per IEGC to RE generators, shall be removed and suitable amendments may be introduced in IEGC.

ANNEXURE 2: TREND OF HOURLY PRICES DISCOVERED IN DAM FOR THE PERIOD OF 05-09-021 TO 05-10-2021



ANNEXURE 3: HOURLY PRICES DISCOVERED IN DAM FOR THE PERIOD OF 05-09-021 TO 05-10-2021

WITH EMPHASIS ON INSTANCES WHERE IS CROSSED RS 4/KWH

Hour of Day	05-09-2021	06-09-2021	07-09-2021	08-09-2021	09-09-2021	10-09-2021	11-09-2021	12-09-2021	13-09-2021	14-09-2021	15-09-2021	16-09-2021	17-09-2021	18-09-2021	19-09-2021	20-09-2021	21-09-2021	22-09-2021	23-09-2021	24-09-2021	25-09-2021	26-09-2021	27-09-2021	28-09-2021	29-09-2021	30-09-2021	01-10-2021	02-10-2021	03-10-2021	04-10-2021	05-10-2021
00 - 01	2.99	2.97	3.43	3.40	3.50	4.00	4.41	2.25	2.00	2.60	2.74	3.07	3.77	5.41	5.37	8.66	10.64	5.40	3.30	6.62	5.67	6.55	3.45	3.96	5.83	4.50	6.75	8.52	11.60	9.14	14.18
01 - 02	2.99	2.84	2.95	3.15	3.26	3.59	3.60	2.14	2.00	2.39	2.62	3.07	3.24	4.51	4.26	7.79	8.62	4.46	3.06	5.40	4.86	5.12	3.26	3.90	5.14	4.19	5.86	8.29	11.02	12.25	14.24
02 - 03	2.89	2.90	2.85	2.93	2.89	3.37	3.32	2.03	2.00	2.22	2.60	2.95	2.97	3.88	3.52	6.62	6.90	4.04	3.55	4.75	3.70	4.01	3.49	3.54	4.76	3.93	5.25	8.02	10.52	8.19	10.97
03 - 04	2.50	2.75	2.84	2.85	2.84	3.37	3.04	2.00	1.84	2.26	2.50	2.82	2.84	3.64	3.30	5.87	5.20	3.84	3.60	4.28	3.46	3.53	3.52	3.00	4.10	3.68	4.91	7.52	8.53	6.92	8.39
04 - 05	2.42	2.61	2.84	2.85	2.84	3.37	3.15	2.23	1.61	2.57	2.51	2.90	2.91	3.72	3.62	6.48	5.88	3.76	3.53	4.38	3.39	3.63	3.65	2.86	4.21	3.26	4.93	7.52	5.93	6.09	9.71
05 - 06	2.91	3.00	2.85	2.92	3.07	3.45	3.44	2.51	2.40	2.92	2.80	3.00	2.93	3.65	3.59	5.50	7.43	3.62	3.47	5.35	4.00	4.01	4.08	3.17	4.05	3.60	6.39	9.39	8.06	10.52	14.52
06 - 07	3.02	3.20	2.91	3.31	3.29	3.49	3.36	2.34	2.53	2.82	2.86	3.16	3.24	3.88	3.66	6.06	4.89	4.53	4.02	5.16	4.92	4.02	4.48	3.32	4.21	3.96	5.84	8.52	5.67	8.06	12.32
07 - 08	3.04	3.31	3.21	3.21	3.23	3.37	3.14	2.40	2.54	2.90	2.77	3.26	3.23	3.93	3.58	6.51	4.42	4.22	4.26	4.94	5.51	3.87	4.98	3.83	3.95	3.49	4.35	5.99	4.75	6.70	7.68
08 - 09	2.75	3.09	3.10	3.00	2.84	3.06	3.00	2.00	2.22	2.62	2.61	2.97	2.84	3.31	3.00	4.02	3.74	3.37	3.51	3.84	4.25	3.34	3.42	3.31	3.31	3.14	3.63	4.08	3.83	6.52	8.81
09 - 10	2.83	3.23	3.10	2.99	2.83	2.95	3.03	2.07	2.70	2.75	2.70	2.75	2.64	3.03	2.87	4.32	3.66	3.53	3.84	4.16	4.27	3.08	3.90	3.51	3.17	3.09	3.63	3.36	3.41	6.52	10.54
10 - 11	2.76	3.05	3.05	2.85	2.78	2.96	3.08	1.95	2.74	2.93	2.83	2.81	2.64	3.08	2.83	4.70	4.28	3.53	3.56	4.78	3.61	3.06	3.98	3.94	3.31	3.04	3.44	3.41	3.07	5.96	10.06
11 - 12	1.99	3.05	3.03	2.85	2.63	2.85	3.00	1.59	2.41	2.71	2.63	2.72	2.61	3.05	2.64	4.51	3.91	3.51	3.34	4.67	3.49	2.95	3.52	3.81	3.18	3.02	3.28	3.29	2.99	5.04	8.52
12 - 13	1.50	3.05	3.00	2.84	2.49	2.84	2.99	1.50	1.89	2.60	2.58	2.60	2.60	3.08	2.64	4.53	3.75	3.32	3.31	4.21	3.54	2.95	3.38	3.55	2.90	2.85	3.14	3.06	2.84	4.45	6.70
13 - 14	1.50	3.04	3.00	2.84	2.43	2.84	2.86	1.50	1.68	2.29	2.30	2.38	2.33	3.01	2.39	3.63	3.39	3.30	3.10	3.58	3.33	2.94	3.31	3.42	2.85	2.85	3.07	3.06	2.84	4.25	6.61
14 - 15	1.75	3.09	3.04	2.92	2.71	2.92	2.98	1.60	1.91	2.59	2.42	2.55	2.60	3.21	2.52	4.27	3.68	3.72	3.46	4.31	3.62	3.14	3.53	3.83	2.94	3.18	3.70	3.96	3.00	5.55	9.64
15 - 16	2.50	3.21	3.04	2.94	2.92	3.08	3.00	1.99	2.58	2.63	2.60	2.77	2.68	3.34	2.68	5.42	3.85	4.38	3.90	4.74	5.11	3.53	5.26	4.68	3.31	4.09	4.89	5.11	3.44	7.05	11.15
16 - 17	2.79	3.15	3.00	3.06	2.99	3.28	2.99	2.11	2.62	2.63	2.63	2.81	2.85	3.52	2.82	5.63	3.51	3.93	3.97	4.04	5.37	3.88	5.61	3.86	3.83	4.43	5.50	5.34	4.24	8.53	12.64
17 - 18	2.98	3.03	3.07	3.26	3.13	3.28	3.07	2.55	2.90	2.87	2.91	3.06	3.20	4.46	2.99	8.03	3.53	4.47	4.77	5.25	8.02	5.26	8.32	5.32	6.49	5.85	10.89	13.64	4.27	14.17	18.75
18 - 19	4.27	4.27	3.86	3.98	4.39	4.93	4.19	3.24	3.71	4.28	4.79	5.61	6.63	10.52	4.90	14.15	10.26	12.29	12.73	19.94	13.13	7.80	10.00	8.30	12.04	14.00	18.63	20.00	9.54	17.00	18.89
19 - 20	5.52	6.18	5.20	6.23	7.80	8.00	5.70	3.36	4.11	5.57	6.52	7.56	9.34	12.04	5.07	14.17	13.76	17.39	14.64	19.95	17.00	15.10	10.75	8.72	15.43	17.59	20.00	20.00	9.00	20.00	20.00
20 - 21	6.64	7.00	6.02	6.75	7.00	7.97	6.00	3.35	3.89	4.80	5.03	4.53	7.16	9.94	4.22	13.15	10.38	12.41	7.21	13.29	10.45	8.59	7.00	7.50	12.24	10.21	15.50	9.52	7.00	15.25	12.75
21 - 22	5.53	5.92	5.90	6.73	7.00	7.21	5.44	3.35	3.80	4.61	4.96	4.05	6.35	8.49	3.60	10.83	7.25	7.62	6.45	8.60	8.28	5.84	6.75	7.19	11.08	10.56	13.25	7.25	7.00	12.00	11.08
22 - 23	4.84	4.50	3.71	4.59	6.08	6.18	4.25	3.27	3.50	3.50	3.51	3.45	4.78	6.41	3.32	7.42	5.20	6.73	3.55	6.00	6.38	5.01	5.62	6.64	7.76	7.39	8.93	7.95	9.00	11.64	12.00
23 - 24	3.77	3.99	3.62	4.40	5.73	5.60	4.00	3.13	3.24	3.14	3.16	3.36	4.21	5.82	3.25	6.76	4.59	4.64	3.11	5.18	5.58	4.78	5.08	6.10	6.70	6.34	7.25	7.95	8.75	10.33	13.83