



Your ref:

My ref: DGM(CS&RA)/TRF/Trf. 2024

Date: November 26, 2024

Director General,  
Public Utilities Commission of Sri Lanka,  
6th Floor, BOC Merchant Tower,  
No.28, St, Michael's Road,  
Colombo 3.

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DGM (CS) [Signature]  
D/K  
28/11/24

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eye  
[Signature]  
28/11/2024

Dear Sir,

**Inconsistency in hydro inflow forecasting of SDDP results of adjacent months**

This is with reference to the PUCSL letter No. PUC/E/Tariff/01 dated 2024-11-13 regarding the above matter with respect to hydro forecasting of the months of October, November and December 2024.

Accordingly, response received from the Transmission Licensee is as follows.

The comparison of forecast and actual inflows is summarized as follows for your reference please.

Forecast for month	Sent in September, 2024			Sent in October, 2024			Sent in November, 2024			
	Met. Dept. rainfall forecast	CEB SDDP inflow forecast (GWh)	Actual	Met. Dept. rainfall forecast	CEB inflow forecast (GWh)		Actual	Met. Dept. rainfall forecast	CEB SDDP inflow forecast (GWh)	Actual
					As per SDDP	Filed for tariff revision on Oct 24, 2024				
October	No Signal	370.40	325	Near Normal	514.40	449.28	325			
November	No Signal	472.00	470*	Near Normal	511.20	511.12	470*	Near Normal	486.70	470*
December		307.40		Near Normal	332.80	333.13		Near Normal	386.90	

Note\*- Inflow received up to 20<sup>th</sup> November 2024

Firstly, it is to be noted that at present, there is no forecasts available for hydro catchment areas as indicated in PUCSL letter and published Meteorological Department's forecasts are available for overall country at district level.

*Inflow projections from October to December, submitted under September SDDP simulation in September 2024*

According to the Meteorological forecast published in September 2024, there is no climatological signal for, Kandy, Nuwaraeliya & Mathale districts where hydro reservoirs are located and thus no clear weather prediction for month of October 2024 unlike stated under PUCSL letter, where near normal rainfall has

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been apparently predicted according to Meteorological forecast published in September 2024. Furthermore, Meteorological Department's forecast issued in September emphasized that there is 66% chance of LaNina onset during September, October, November 2024 period. And there is a higher possibility of below average rainfall over the most parts of Sri Lanka during November 2024.

Accordingly, SDDP model generated inflow scenarios from October to December has been selected while considering similar historical years with El Niño to La Niña transition since similar weather phenomena has been predicted by Meteorological forecast.

*Inflow projections from October to December, submitted under October SDDP simulations in October 2024*

NSCC has considered near normal rainfall forecast for months of October, November and December 2024 as indicated in the letter as well as in the Meteorological Department's forecast for inflow modelling. Thus, it can be clearly seen that inflow scenarios with relatively higher inflows have selected for October SDDP submission compared to September submission, while taking historical recent 10-year inflows also in to consideration. Nevertheless, despite favorable near normal weather predictions, well below average rainfall pattern was experienced to hydro catchment areas throughout the October and according to weekly and 10-day weather forecasts relatively less rainfall has been projected by Meteorological department for latter part of October. Accordingly, less inflow scenarios have been considered for the second dispatch forecast submitted in latter part of October for tariff filling.

*Inflow projections from November to December, submitted under November SDDP simulation in November 2024*

NSCC has considered near normal rainfall forecast for months of November, December 2024 and January 2025 as indicated in the letter as well as in the Meteorological Department's forecast for inflow modelling. Nevertheless, inflows have been selected while considering the historical 10 years' recent inflow pattern as well as the fact that well below average inflows has been recorded in October 2024 despite Meteorological forecasts near normal rainfall prediction. Accordingly, relatively less inflows have been considered for the month of November under the November submission compared to same period under October submission.

Also, it is to be noted that in Metrological Department's forecast for months of October, November and December 2024, they have identified in addition to the rainfall forecast there could be development of the synoptic scale systems such as low-pressure areas and depressions are also possible during November 2024 and cyclones and wave type disturbances are also possible during December 2024.

Therefore, there could be drastic changes to the inflow forecast which could not be predicted by the SDDP or any other forecasting models.

*Methodology of Inflow forecasting using SDDP tool*

It is to be noted that at present historical inflows for each hydro reservoir/pond from year 1979 to 2023 has been fed as an input to the SDDP model in monthly time step. Further, Oceanic Niño Index (ONI) for the same period has been fed to the SDDP model with monthly time step. In addition, expected ONI index for the immediate months has been incorporated in to the model. Thus, based on 44 years of historical inflows and historical ONI and predicted ONI for immediate month, inflows are forecasted at monthly time steps for 100 inflow scenarios from SDDP model itself and subsequently appropriate set of inflow scenarios are selected while considering actual last 10-year historical inflows and latest three months Meteorological

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weather forecast. In addition to that immediate months' weather predictions of other sources such as Meteoblue, Accuweather, Windy, the Weather Channel are also considered for inflow modelling purpose.

The requested input data of historical inflows & ONI index are attached under Annexure 01 & 02 from 1979 to 2023. The requested sample inflow forecast generated from model for 100 inflow scenarios are attached under Annexure 03 for period from November 2024 to October 2025.

Yours faithfully

CEYLON ELECTRICITY BOARD



Eng. K. G. R. F. Comester

**General Manager** Eng. K. G. R. F. Comester  
**Ceylon Electricity Board** General Manager  
Ceylon Electricity Board

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## Annexure 01

## Historical Inflow to hydro reservoirs/ponds (m3/s)

	Kotmale	Ukuwela	Victoria	Randenigala	Rantabe	Bowalenna	Canyon	New Laxapan	Polpitiya	W/PS	Old Laxapana	Samanalawewa	Kukule	Upper Kotmale	Broadlands	Moragolla	Uma Oya
Jan-79	12	17	13	17	14	10	3.8	0.7	1.3	2.4	0.4	10	41	6.8	0	14	4.5
Feb-79	8.7	12	2.2	2.4	9	21	3.3	0.6	1.1	2.2	1.1	11	43	4.8	0	11	1.2
Mar-79	6.1	8	6.2	4	6.5	6.1	3.4	0.6	1.3	1.2	1.3	9.2	31	3.4	0	10	0
Apr-79	13	7.1	5.6	3.4	5.3	7.8	5.9	0	1.9	5	1.2	16	9	7	0.5	7.5	2.5
May-79	23	19	6.5	2.8	5.4	8.1	25	2	4	10	2.2	20	4.6	13	1.6	17	1.4
Jun-79	39	31	5.2	2	4.1	4.2	20	6.5	13	11	3.3	11	5	22	4.9	26	4.7
Jul-79	69	37	4.6	2.1	4.7	4.1	24	4.9	9.7	14	3.3	13	17	38	4	37	0.9
Aug-79	40	21	8.2	5.1	3.6	5.8	13	2.4	4.6	8	1.8	16	31	22	1.6	22	0
Sep-79	56	53	8.9	4.3	4.7	9.1	27	14	26	12	6	20	47	31	3.1	42	6.7
Oct-79	70	57	15	12	6.6	11	22	3.6	7.1	18	6.2	16	40	38	4.4	52	20
Nov-79	73	70	64	42	8.7	11	28	1.1	2.1	16	6.4	28	42	40	3.7	64	22
Dec-79	43	47	31	31	6.6	6.3	12	1.9	3.8	11	2.2	23	22	24	0.9	36	12
Jan-80	14	14	9	20	12	6.8	3.8	0.7	1.3	2.5	1	8.9	34	7.8	0	9.6	4.4
Feb-80	7.2	6.5	0.6	3	14	11	2.6	0.5	1.1	1.1	0.9	5.7	45	4	0	4.7	0.5
Mar-80	6.2	4.2	0.3	0.4	7.7	6.3	4.7	0.9	1.7	1.6	1.1	8.3	23	3.4	0	5.1	1.6
Apr-80	13	17	5.9	4.2	11	7.9	7.7	1	1.9	5.5	1.1	20	13	6.9	0.5	14	6.8
May-80	15	13	8.6	5.5	7.8	2.5	7.6	0.7	1.5	4.3	1	14	9.2	8.3	1.6	9.5	11
Jun-80	18	16	6.4	1.7	5.9	3.9	12	2.2	4.4	5	2	8.5	6.2	10	4.9	13	2.3
Jul-80	39	38	13	3.5	4.7	1.6	15	5.4	11	8	4.7	7	15	21	4	29	0
Aug-80	46	36	18	5.8	3.4	1.5	14	5.2	10	7.2	4.1	5	50	26	1.6	17	0
Sep-80	22	25	7.3	3.2	4.1	1.8	9.3	1.4	2.7	4.5	2.4	3.7	51	12	3.1	17	0.9
Oct-80	42	36	20	15	7.3	8.2	13	1.8	3.6	8.5	2.4	8.6	19	23	4.4	31	7.1
Nov-80	30	39	37	31	12	14	14	1.9	3.8	11	2.3	22	12	17	3.7	32	6.4
Dec-80	23	27	19	19	8.9	27	8.4	0.7	1.5	7.4	0.6	21	38	13	0.9	18	5.2
Jan-81	17	14	17	18	6.7	16	7.9	0.7	1.3	4.8	0.9	13	24	9.1	0	9.6	4.5
Feb-81	8.1	4.8	10	14	4.5	11	5.6	0.3	0.6	1.5	0.9	7.1	44	4.5	0	5	0.4
Mar-81	7.2	3.1	4.9	4.1	2.5	6.7	6.2	0.6	1.3	2.4	0.9	8.1	18	4	0	5.8	0.8
Apr-81	9.7	8.7	8.2	6.4	3.5	3.4	6.3	0.5	1.1	3	0.9	18	6	5.3	0.5	10	0.8
May-81	8.6	8	7.5	6.3	4.7	2.8	8.1	1	1.9	3.7	1.1	13	4.2	4.7	1.6	5.1	4
Jun-81	54	59	21	5.4	3.2	0.7	26	8.6	17	13	5	14	9.8	30	4.9	43	0
Jul-81	32	43	13	6.4	5.9	1.9	12	2.4	4.8	5.3	2.6	7.6	29	18	4	29	11
Aug-81	37	34	7.8	2.8	3.3	2.4	12	2.9	5.9	5.5	2.8	4.9	53	20	1.6	15	1.7
Sep-81	84	95	20	8.9	6.7	4.1	30	8.8	17	15	5.7	7.3	93	46	3.1	71	1.5
Oct-81	25	40	13	7.8	6.8	6.9	8.4	3	3.2	7	3.5	9.3	37	14	4.4	22	5.5
Nov-81	39	59	25	17	11	7.9	15	5.2	5	9.6	3	20	32	21	3.7	44	13
Dec-81	19	23	11	12	7.2	14	6	1.8	1.9	5.2	1	14	13	10	0.9	16	4.5
Jan-82	6	11	7	12	7.7	4.6	3.3	0.8	1.3	2.7	0.8	8.6	62	3.3	0	3.1	0
Feb-82	4.8	5.4	1.4	2.3	6.9	5	2.5	0.5	0.8	1	0.8	5.1	56	2.6	0	1.6	0
Mar-82	7.2	2.7	2.7	1.8	4.3	3.9	4.3	0.8	1.3	1.5	0.9	8.2	20	4	0	1.9	1.7
Apr-82	9.4	14	5.7	3.6	5.7	3.9	7.3	1.2	2.1	5.8	1.2	17	5.9	5.2	0.5	8.8	1.5
May-82	23	28	14	6.5	6.6	2.7	18	3.6	6.3	10	2.2	18	4.5	13	1.6	21	3.7
Jun-82	55	125	15	4.5	4.8	3.2	37	8.7	17	18	5	28	5.2	30	4.9	72	0.8

Sep-86	46	47	21	8.8	4.9	2.4	19	4.6	9.2	6.6	1.5	8.6	25	25	3.1	25	2.9
Oct-86	45	48	30	23	9.4	7.8	23	6	7.4	7	3.1	16	6.4	25	4.4	44	9.1
Nov-86	26	35	16	15	10	8.7	7.8	2.8	4.2	6.6	1.4	14	47	14	3.7	33	3.9
Dec-86	13	9.9	12	13	6.3	15	6.9	0.9	1.7	7.3	0.7	13	35	7.3	0.9	8.3	4.8
Jan-87	15	18	18	21	16	12	3.9	0.4	1.3	4.2	0.7	10	49	8	0	4.6	2.2
Feb-87	7.4	6.8	8.1	14	9.8	5.9	3.7	0.3	0.6	2.5	0.8	4.4	48	4.1	0	1.1	0
Mar-87	8.3	1.6	7.4	4.2	6.1	4.6	3.2	0.5	0.6	2.5	0.6	12	23	4.6	0	1	0
Apr-87	12	12	11	7.7	7.9	5.2	6.3	4	2.9	5.6	0.9	19	14	6.3	0.5	6.1	5.4
May-87	11	14	19	9.7	8.3	4.5	8.5	3.1	3.6	7.6	0.9	24	22	6.2	1.6	9.1	6.1
Jun-87	36	29	8.7	4.2	4.1	5.4	17	9.9	3.6	6.3	2.6	9.8	31	20	4.9	16	2.7
Jul-87	25	19	14	3.2	4.6	1.6	4.5	7.7	2.1	3.1	0.7	6.1	26	14	4	11	0
Aug-87	38	35	12	8.3	3.7	2.5	13	17	5.9	4.6	3.2	14	30	21	1.6	13	1.8
Sep-87	33	17	9.7	5.4	5.2	2.4	11	4	5	4.1	0.8	7.8	52	18	3.1	28	7.7
Oct-87	75	66	53	32	8.9	8.5	15	6.1	6.1	6.5	5	11	34	41	4.4	41	17
Nov-87	35	77	19	15	11	10	9.3	2.7	2.9	6.4	3.2	15	61	19	3.7	41	9.5
Dec-87	23	28	29	25	6.3	12	5.7	1.8	1.9	3.2	0.9	20	58	13	0.9	20	7.7
Jan-88	9.1	9.9	17	25	7.1	7.4	3.7	0.7	1.5	2.1	1.3	11	13	5	0	4.6	1.7
Feb-88	6.1	2.7	14	9.4	4.2	15	4	1	1.3	2.2	0.6	9.9	38	3.4	0	2.7	1.4
Mar-88	5.9	3.5	4.2	2.5	2.3	5.7	4.1	0.7	1.5	4	0.6	27	13	3.2	0	4.2	2.8
Apr-88	43	52	32	22	8.5	13	15	1.7	3.2	11	1	37	5.3	24	0.5	15	8.8
May-88	67	58	25	11	8.1	2.7	19	3.4	4.4	12	3.2	15	3.3	37	1.6	18	3.9
Jun-88	43	61	23	5.6	4.1	2.5	16	2	8.8	7.4	2.6	15	5.6	24	4.9	22	1.4
Jul-88	42	37	10	4.6	5.4	2.7	18	4.2	8.4	12	2.2	10	9.1	23	4	35	4.1
Aug-88	35	56	17	13	4.8	2.2	18	5.7	11	13	1.2	7.7	28	19	1.6	40	1.9
Sep-88	39	60	22	9	5	2.7	20	4.8	6.3	14	1.7	21	81	21	3.1	46	1.8
Oct-88	9.6	18	8.8	4.9	5.5	3	6.8	1.9	2.1	9.8	2.8	14	71	5.3	4.4	24	0.3
Nov-88	33	34	49	34	7.2	13	21	3.9	4.6	9.4	2.9	20	34	18	3.7	37	0
Dec-88	21	29	20	26	4.1	20	5.5	1.5	1.7	5.5	0.7	19	31	12	0.9	13	1.5
Jan-89	17	7.4	29	41	13	19	3.2	0.8	1.3	2.3	0.7	10	32	9.1	0	6.4	6.8
Feb-89	6.6	1.8	13	14	13	4	2.6	0.5	1.1	1.1	0.7	3.9	50	3.6	0	1.8	0
Mar-89	4.9	3.2	4.1	3.5	6	2.8	2.3	0.5	0.8	1.7	1.3	4.8	14	2.7	0	0.8	0
Apr-89	11	3.5	5.6	3.9	9.9	3.4	5.4	1.3	1.5	5.2	0.7	17	7.6	5.8	0.5	5	0
May-89	33	26	22	8.9	9.4	4.4	26	6	12	9.1	1.3	24	4.9	18	1.6	13	1.9
Jun-89	62	76	33	8.8	5.3	2.5	39	11	16	12	6.7	10	14	34	4.9	39	2.2
Jul-89	66	40	8.8	9.1	5.7	10	35	7.7	13	17	5.3	12	13	36	4	70	3.2
Aug-89	67	72	21	8.3	4.8	3.7	26	6.1	9.2	12	3.4	7.1	46	37	1.6	40	0
Sep-89	43	65	13	6.5	3.7	5	19	1.7	3.2	14	2.2	5.2	30	24	3.1	36	0.9
Oct-89	45	50	17	10	7.3	4.4	15	2.6	4	7	1.9	13	33	25	4.4	23	2.7
Nov-89	40	39	33	24	16	20	9.8	4.1	3.6	8.3	3.3	21	11	22	3.7	26	2.8
Dec-89	20	18	18	20	8.4	14	4.3	2.3	1.9	2.7	0.8	12	4.3	11	0.9	14	1.1
Jan-90	15	11	36	38	7	30	3.9	1	1.7	4.4	1	9.6	21	8.3	0	15	15
Feb-90	10	16	34	45	6.6	11	3.7	1	1.3	3.3	0.7	8.5	51	5.6	0	11	0
Mar-90	8.4	17	15	16	7.1	13	4.7	1.9	1.3	5	0.6	16	20	4.6	0	14	0
Apr-90	5.9	12	5.6	3.2	5.3	10	4.5	1.6	2.1	5.4	0.7	19	22	3.2	0.5	12	0
May-90	21	40	14	5.5	7.8	12	20	7.8	7.1	11	2.2	23	7.7	12	1.6	25	6.4
Jun-90	73	76	18	5.4	4.6	9.9	26	5.2	7.1	14	2.8	7.6	7.1	40	4.9	39	0
Jul-90	37	47	30	12	6.8	5.3	14	2.6	8.6	6.9	4	6.1	18	20	4	27	0
Aug-90	37	34	13	7.8	4	6	13	2.5	4.2	5.5	2.6	2.1	15	20	1.6	24	0.1
Sep-90	17	13	25	12	3.5	3.9	7.5	0.5	2.9	6.4	1	4.6	59	9.5	3.1	14	4.5
Oct-90	27	40	23	13	7.4	10	17	2	4.6	8.3	2.1	18	21	15	4.4	8.5	7.5

Jan-95	14	14	21	26	11	12	4.1	0.8	1.3	2.7	1.2	13	55	7.5	0	3.4	3.9
Feb-95	11	5.5	15	20	8.8	11	3	0.7	1.1	3.6	1.1	8.4	41	6.1	0	2.3	1.9
Mar-95	12	13	15	9.8	4.4	8.5	4.9	1.1	1.7	5.4	0.7	15	13	6.3	0	2.7	0
Apr-95	33	38	15	11	4.8	20	19	1.8	4	24	1.9	49	6.6	18	0.5	9.8	7.6
May-95	45	129	51	26	12	16	29	8.3	8.4	14	3.5	25	11	25	1.6	32	9.4
Jun-95	62	90	26	5.7	2.6	8.3	29	7.1	8.2	10	3.2	15	6.4	34	4.9	41	3.1
Jul-95	49	66	15	3.8	1.7	4.9	23	5.3	8.6	8.1	3.2	14	32	27	4	20	1.4
Aug-95	31	37	22	8.3	3.7	5.1	17	4	6.7	5.8	3.8	13	11	17	1.6	21	0.8
Sep-95	31	35	14	6.5	2.9	3.2	11	5.9	6.9	4.5	2	6.7	28	17	3.1	37	0
Oct-95	54	74	27	16	7.3	12	20	8.8	8.4	8.1	4.5	10	32	30	4.4	37	7.5
Nov-95	24	44	37	16	7.2	26	8.5	3.9	3.8	9.7	2.1	16	26	13	3.7	33	3.6
Dec-95	13	8.8	13	16	7.3	16	3.5	0.8	0.8	2.5	0.4	10	86	6.9	0.9	4	4.5
Jan-96	12	10	15	22	9.9	14	4.3	0.7	1.3	2.2	0.7	8.5	56	6.4	0	3.2	8.6
Feb-96	8.5	9.6	8.9	11	4.7	8.3	3.9	0.9	1.3	2.6	0.5	8.2	23	4.7	0	2.1	6.1
Mar-96	4.6	3.2	1.7	1.6	0.7	7.9	2.9	0.4	0.8	1.8	0.6	8.5	18	2.5	0	1.8	1
Apr-96	18	21	9.1	5.5	2.5	3.2	9	0.7	1.9	8.9	1.3	18	5.4	10	0.5	6.2	1.6
May-96	8.2	12	6.9	4.6	2.1	4.4	7.9	1	0.8	5.5	1.7	9.2	4.1	4.5	1.6	2.1	0.6
Jun-96	28	16	15	4.9	2.2	3	18	4.4	3.8	11	1.7	13	4.4	15	4.9	10	1.6
Jul-96	31	33	12	4.3	1.9	3.3	15	15	11	6.8	3.2	7.2	16	17	4	22	0.4
Aug-96	38	39	28	8.2	3.7	5	13	8.1	6.5	0	2.8	5.2	55	21	1.6	24	0.1
Sep-96	71	53	12	9.7	4.4	7.4	23	15	8.2	7.7	3	13	22	39	3.1	42	0.9
Oct-96	44	32	26	14	6.1	14	12	12	4.4	6.3	3.2	8.5	47	24	4.4	28	6.9
Nov-96	30	35	26	41	18	8.3	9.5	7.9	4	7	4	21	22	16	3.7	11	4.4
Dec-96	23	13	17	16	7.2	0	3.8	2.1	1.3	3.5	0.6	11	59	12	0.9	6.3	5.3
Jan-97	8	8.4	4.6	7.7	9.1	4.9	2.8	0.9	1.3	1.5	1	7.2	8.9	4.4	0	3	0.4
Feb-97	7.5	2.6	2.6	4.9	6	4.8	2.2	0.6	1	1.6	1.2	4.4	1.9	4.1	0	2.1	0
Mar-97	8.5	9.8	4.5	3.3	5	4.4	3.6	0.7	1.4	2.2	0.7	9.9	3	4.7	0	2.3	1.2
Apr-97	27	27	12	9.3	14	12	13	1.2	3.6	24	1.9	32	17	15	0.5	5.6	8.5
May-97	25	75	32	17	12	17	22	6.8	6	10	3.1	27	52	14	1.6	15	7.6
Jun-97	28	32	15	4.8	6.1	7	17	4.4	3.6	6.3	1.7	12	40	16	4.9	8.1	8
Jul-97	47	47	16	4.9	5.8	5.7	30	6.2	11	9.4	4.1	14	25	26	4	38	3.7
Aug-97	24	26	17	6.6	3.7	4.5	15	4.4	6	4.9	3.8	10	22	13	1.6	18	0.1
Sep-97	44	44	21	10	4.2	6	19	5.9	11	8.6	2.3	25	82	24	3.1	29	3.5
Oct-97	48	57	32	28	12	7.6	16	6.1	5.6	11	3.8	16	35	26	4.4	23	7.9
Nov-97	30	54	58	40	23	31	10	4.7	3.6	13	2.4	30	46	17	3.7	23	8.4
Dec-97	23	29	40	42	21	31	7.1	1.1	1.8	7.5	0.7	21	44	13	0.9	14	11
Jan-98	15	13	23	34	17	13	5	1.1	1.3	2.5	0.6	12	25	8	0	9.9	8.8
Feb-98	8.6	9.5	8.1	11	12	7.2	4.3	1.1	1.4	2.7	0.5	9.4	18	4.7	0	4	2.2
Mar-98	4.7	3	1.6	1.5	4.2	6.5	3.6	0.6	0.9	2.1	0.5	8.2	9	2.6	0	2.4	1.3
Apr-98	6.6	7.5	5.6	3.4	6.4	3.6	5	0.5	1	4.7	0.6	16	29	3.6	0.5	2.2	3.8
May-98	11	16	10	6.4	6.4	4.1	16	1.8	3.8	11	2.7	20	34	6.2	1.6	9	4.4
Jun-98	49	39	21	5.8	4.3	4.2	18	5.1	4.1	9.6	2.1	12	39	27	4.9	33	2
Jul-98	33	41	12	5	4.9	5	12	18	9.1	5	2.6	8.4	30	18	4	28	1.5
Aug-98	36	37	32	10	3.6	5.1	13	12	6.4	8.4	2.6	7.8	33	20	1.6	31	0.8
Sep-98	80	45	13	11	4.1	6.9	20	16	6.8	6.3	2.2	9.7	91	44	3.1	38	2.1
Oct-98	51	55	21	8.1	8.6	5.2	14	16	5.2	5.5	2.4	7.5	28	28	4.4	33	7.9
Nov-98	31	42	20	26	11	8.8	9.1	7.7	4.7	5.4	2.9	15	33	17	3.7	23	8.5
Dec-98	34	28	31	27	11	14	4.6	2.3	1.7	3.8	0.8	15	26	19	0.9	10	11
Jan-99	26	24	79	82	16	13	4.2	1.5	1.5	3	1.5	12	19	14	0	12	8.8
Feb-99	17	28	23	25	11	16	3.2	0.8	1.1	2.8	1.1	14	12	9.1	0	4.4	2.2

Jul-07	26	30	9.5	4	9.3	3.1	17	48	5.5	4.9	2.9	7.1	16	14	4	35	1.5
Aug-07	19	16	20	5.9	6.9	2.4	8.8	16	2.4	7.1	2.6	6.8	23	11	1.6	23	0.8
Sep-07	61	28	9.1	15	8.9	4.9	19	16	2.3	6.1	1.9	13	70	34	3.1	52	2.1
Oct-07	65	63	28	13	20	7.6	13	28	2.2	5.8	3.1	11	33	36	4.4	39	7.9
Nov-07	32	40	24	40	29	20	7	9.3	1.5	5.3	3.8	23	36	17	3.7	30	8.5
Dec-07	26	17	24	24	41	29	3.4	2.1	0.6	3.4	0.6	17	11	14	0.9	11	11
Jan-08	17	14	30	35	36	12	3.2	1.4	0.6	1.9	1.6	12	13	9.2	0	8	8.8
Feb-08	12	17	6.3	6.4	23	14	2.6	0.7	0.4	2.4	1.2	23	3.2	6.3	0	7.3	2.2
Mar-08	17	20	30	19	24	25	6.2	1.8	0.8	5.8	0.7	84	5.8	9.5	0	19	1.3
Apr-08	20	24	25	17	26	16	17	2.5	2.4	19	3.7	49	6.6	11	0.5	32	3.8
May-08	14	11	18	5.7	17	9.7	18	6	2.4	6.3	0.7	20	19	7.6	1.6	21	4.4
Jun-08	12	15	3.4	0.7	8.2	2.3	18	2.7	2.2	7.6	1.6	5.5	21	6.6	4.9	32	2
Jul-08	29	40	15	4.5	12	3.5	24	7.3	4.9	11	1.7	5.1	33	16	4	41	1.5
Aug-08	25	16	3.4	2	6.8	2.2	11	5.5	1.5	11	3.7	1.4	16	14	1.6	22	0.8
Sep-08	16	24	7.9	4.8	9	2	8.5	1	2.5	5.2	1.7	2.7	15	8.9	3.1	25	2.1
Oct-08	24	28	14	9.5	19	8	17	1.8	2.6	16	1.4	13	45	13	4.4	23	7.9
Nov-08	27	46	29	39	29	8.1	7.9	1.7	2.4	9.7	3	16	12	15	3.7	22	8.5
Dec-08	22	27	26	27	28	18	7	1	0.8	8.7	0.8	18	11	12	0.9	15	11
Jan-09	9	3.7	6.7	7	9.3	2.7	2.9	1.2	0.8	7	0.2	18	13	5	0	2.7	8.8
Feb-09	3.5	6.1	2.7	4.7	0.4	0	1.7	0.5	0.8	2.7	0.2	7.4	3.2	1.9	0	0.9	2.2
Mar-09	8.1	4.4	12	2.9	2.2	1.7	4.3	1.3	0.5	1.5	0.2	5.4	5.8	4.5	0	6.7	1.3
Apr-09	5.9	11	8.8	2.1	6.5	5.5	6.9	1.9	1	4.2	0.6	15	6.6	3.2	0.5	8.6	3.8
May-09	34	42	12	3.8	1	1.8	26	5.7	7.5	4.4	3.1	20	19	19	1.6	33	4.4
Jun-09	27	31	7.8	4.2	0.4	6.3	24	5.1	7.9	12	3.4	23	21	15	4.9	42	2
Jul-09	44	22	13	0.3	3.7	8.6	14	2.6	15	7.8	3.6	16	33	24	4	34	1.5
Aug-09	25	15	13	0.8	1.2	9.7	11	4	5.1	8.4	1.9	8.9	16	14	1.6	23	0.8
Sep-09	12	32	6.2	0.5	0.3	6	18	2.5	5.4	5.4	3	6.1	15	6.6	3.1	40	2.1
Oct-09	47	50	24	5.9	3.1	13	16	21	1.1	7	0.4	8.9	45	26	4.4	35	7.9
Nov-09	35	48	33	17	17	17	12	2.6	3.3	13	0.1	18	12	19	3.7	20	8.5
Dec-09	40	59	39	42	50	32	7.7	2.6	3.3	12	0.1	30	11	22	0.9	7.3	11
Jan-10	19	19	14	24	22	8.1	4.7	0.9	1.4	6.4	0.1	17	14	10	0	3.9	8.8
Feb-10	8.6	0.7	13	19	14	8.8	3	0.9	2	3.6	0.1	11	2.3	4.7	0	5.7	2.2
Mar-10	6.9	8.7	9.4	3	6	0	3	1.3	1	4.1	0.1	8.5	3.8	3.8	0	5.4	1.3
Apr-10	18	29	12	13	13	2.9	5.6	1.7	0.5	8.2	0.6	28	8.1	10	0.5	9.8	3.8
May-10	35	60	9.4	19	17	0.8	22	4.4	6	12	2.1	28	36	19	1.6	35	4.4
Jun-10	46	61	0.8	14	5.6	1	22	4.8	7.1	10	2.9	17	33	25	4.9	46	2
Jul-10	62	74	9.9	12	8	0.9	19	6.2	8.5	14	3.5	18	16	34	4	44	1.5
Aug-10	44	55	25	7.2	2.2	1.1	17	5.6	8.6	10	2.8	11	23	24	1.6	35	0.8
Sep-10	37	34	27	8.9	5.6	0.6	9.8	3	8.4	8.3	1.3	7.3	70	20	3.1	31	2.1
Oct-10	67	86	36	24	6.4	13	18	4.4	10	12	2.4	13	33	37	4.4	46	7.9
Nov-10	46	90	42	30	28	23	14	3.5	4.9	14	1.6	29	36	25	3.7	38	8.5
Dec-10	60	120	73	38	44	50	18	3.5	4.9	14	1.6	29	11	33	0.9	36	11
Jan-11	48	125	97	84	71	35	9.8	2.1	12	11	0.3	19	13	26	0	7.7	8.8
Feb-11	52	133	80	60	119	34	6.9	2.2	2.4	9.3	0.4	20	3.2	28	0	4.7	2.2
Mar-11	14	25	26	27	24	6.4	4.4	2.4	2.5	5.3	0.1	14	5.8	7.8	0	4.9	1.3
Apr-11	15	39	16	23	24	7.4	8.4	2.8	3	8.5	0.5	22	6.6	8.5	0.5	10	3.8
May-11	16	31	13	13	12	1.2	14	4.7	5.5	5.6	2.6	15	19	8.9	1.6	16	4.4
Jun-11	19	32	9.4	9.8	2.2	0.2	9.6	4.1	4.2	4.4	3	7	21	11	4.9	33	2
Jul-11	21	18	5	13	0.6	1.2	6.8	3.3	1.5	3.8	2.1	4.3	33	11	4	32	1.5
Aug-11	18	20	1.6	4.7	0.3	0.5	8	2.5	1.9	3.5	1.8	3.8	16	9.8	1.6	23	0.8

Sep-11	27	41	10	0	0.2	1.7	13	4.6	6.1	5.2	3.2	6.5	15	15	3.1	27	2.1
Oct-11	18	27	17	11	19	11	6.3	2.3	2	4.5	1.1	11	45	10	4.4	30	7.9
Nov-11	21	22	27	19	26	6.7	6.4	1.2	0.8	5.4	0.9	17	12	11	3.7	29	8.5
Dec-11	16	14	25	29	31	9	4.6	1.2	0.8	5.4	0.9	17	11	8.7	0.9	14	11
Jan-12	8.3	0.3	7.6	19	9.4	6.9	1.8	0.2	0.1	2.2	0.1	7.8	13	4.6	0	7.7	8.8
Feb-12	7.1	2.6	12	19	14	11	2.2	0.4	0.3	3	0.1	6.2	3.2	3.9	0	4.7	2.2
Mar-12	4	4.7	5.7	6.6	1.7	2.2	2.7	0.4	1.4	2.6	0	7.2	5.8	2.2	0	4.9	1.3
Apr-12	16	24	8.2	10	13	13	8.5	1.3	0.8	6.5	0.4	19	6.6	9	0.5	10	3.8
May-12	5.3	5.4	4	11	0.1	0.2	3.2	0.8	0.2	2.5	0	8.5	19	2.9	1.6	16	4.4
Jun-12	5.6	9.5	3.2	0.6	0.1	1.1	4.7	1.2	0.5	1.8	0.5	3.3	21	3.1	4.9	33	2
Jul-12	16	29	6.5	2.3	0.4	0.2	9.6	2.9	4.7	3.1	1.7	3.9	33	8.6	4	32	1.5
Aug-12	11	14	2.4	0.1	0.6	0	7.9	2.4	1.2	2.5	1.3	3	16	5.9	1.6	23	0.8
Sep-12	12	13	5.5	0.2	0.2	0.2	6.6	2.2	1.3	2.4	1.7	2.9	15	6.5	3.1	27	2.1
Oct-12	38	51	26	10	15	9.6	14	3.1	2	11	2.1	19	45	21	4.4	30	7.9
Nov-12	54	67	36	17	23	21	19	3.2	5.8	16	0	41	12	30	3.7	29	8.5
Dec-12	42	78	77	68	55	94	5.9	3.2	5.8	16	0	41	11	23	0.9	14	11
Jan-13	35	41	71	21	60	41	4.7	2.3	0	6.5	0	20	7.1	16	0	7.7	8.8
Feb-13	16	13	29	15	25	19	4.8	2.6	0	4.5	0	17	3.2	9.2	0	4.7	2.2
Mar-13	13	18	11	6.4	12	9.6	5.6	3.1	0	6.8	0	23	9.2	2.8	0	4.9	1.3
Apr-13	14	19	8.7	5.7	8.4	3.2	3.7	3.1	0	5.1	0	22	14	6.9	0.5	10	3.8
May-13	34	41	10	5.2	6.8	11	25	5.2	0	13	0.9	29	32	12	1.6	16	4.4
Jun-13	124	190	18	36	4	7.4	35	0	0	24	0	34	20	28	4.9	33	2
Jul-13	76	105	15	24	0	3.2	17	2	0	16	0	12	20	28	4	32	1.5
Aug-13	53	53	15	12	0	3.9	11	2.6	0	14	0	11	17	21	1.6	23	0.8
Sep-13	56	70	20	3.9	0	0	20	5	0	10	2	15	21	22	3.1	27	2.1
Oct-13	30	49	11	4.3	0	11	7.4	6.6	0	5.8	1	9.4	18	13	4.4	30	7.9
Nov-13	23	31	28	7.5	7.4	9.4	6.2	5.8	0	6.8	0.4	25	24	11	3.7	29	8.5
Dec-13	19	18	26	11	25	8	4.7	4.5	0	6.3	0.2	23	20	9.9	0.9	14	11
Jan-14	9.9	12	5.3	5.7	8	1.3	3.3	1.5	0	4.1	0	13	13	5.1	0	7.7	8.8
Feb-14	5.2	5.6	0	4.3	0	0	1.8	0	0.7	2.6	0	8.6	6.6	2.6	0	4.7	2.2
Mar-14	4.9	5.1	0	2.4	0	0	1.4	0	3.6	1.8	0.2	6.7	8	2.8	0	4.9	1.3
Apr-14	6.4	15	0	2.8	0	4.1	5.5	0	1	4.7	0.3	17	15	2.6	0.5	10	3.8
May-14	7.8	21	9.1	3.8	9.3	7.4	5	0	0.1	4.5	0.1	12	21	4.1	1.6	16	4.4
Jun-14	32	44	4.5	1	0	0	24	0	5.9	12	3.2	15	36	11	4.9	33	2
Jul-14	32	33	4.8	1.1	0	0	12	3.1	2.3	7.5	2.4	3.4	19	11	4	32	1.5
Aug-14	46	54	1.6	0.7	0	0	15	0.3	0.9	8.8	1.8	4.9	35	16	1.6	23	0.8
Sep-14	24	36	4.2	2.6	1	2.7	7.1	6.2	0	4.7	1.7	2.7	31	8.6	3.1	27	2.1
Oct-14	44	85	30	8.7	16	27	17	7	0	11	1.2	18	46	16	4.4	30	7.9
Nov-14	40	67	28	10	19	26	11	5.8	0	11	0	21	36	16	3.7	29	8.5
Dec-14	68	188	115	65	127	155	15	2.9	0	17	0	45	37	18	0.9	14	11
Jan-15	27	38	35	30	21	39	5	2.2	0.5	7.1	1.1	12	14	14	0	7.7	8.8
Feb-15	20	21	23	49	41	20	6.9	1.3	0.4	7.3	1.1	17	19	11	0	4.7	2.2
Mar-15	9.5	13	15	26	12	7.5	4.4	1.3	0.1	4.4	0.9	16	11	6.6	0	4.9	1.3
Apr-15	20	30	22	30	25	12	6.7	1.5	0.9	8.7	0.9	38	33	11	0.5	10	3.8
May-15	24	30	23	19	16	7.7	8.7	1.7	0.7	7.9	0.9	25	25	13	1.6	16	4.4
Jun-15	19	24	10	15	6	2.8	8	2.7	0.6	4.8	2	9.5	21	9.6	4.9	33	2
Jul-15	27	20	5.7	13	0.7	5	9.2	3.8	1.3	4.8	3.3	5.8	26	11	4	32	1.5
Aug-15	20	18	5.1	8.2	3.3	0.1	7.3	2.7	0.5	4.5	2.1	7	24	9	1.6	23	0.8
Sep-15	29	28	18	2.7	10	4.8	13	3.9	1.6	5.5	3.1	12	36	14	3.1	27	2.1
Oct-15	51	70	30	15	37	18	18	4.2	3.4	14	3.1	30	52	26	4.4	30	7.9



Jan-20	11	12	22	4.3	27	9.7	3.2	0.5	0	4.3	0.6	16	6.9	7	0	7.7	8.8
Feb-20	5.6	5.5	12	4	16	4.6	2.2	0.4	0	2.1	0.5	5.8	3.8	3.5	0	4.7	2.2
Mar-20	3.4	2.7	5.6	0	2.3	1.7	1.8	0.4	0	1.5	0.4	4.1	3.9	2.2	0	4.9	1.3
Apr-20	5.1	7.9	5.2	0.7	0.1	0.9	4.3	0.6	0	3.6	0.5	10	15	2.9	0.5	10	3.8
May-20	26	48	13	0.1	10	4.1	19	3.7	3.7	12	2.8	8	50	13	1.6	16	4.4
Jun-20	18	35	3.8	0	0.1	0	11	3.5	1.6	5.3	2.6	7.1	28	6.9	4.9	33	2
Jul-20	19	30	4.4	0.2	1.1	0.9	8.3	2	1	4.1	2.4	5.2	24	7	4	32	1.5
Aug-20	62	60	9.9	0.8	1.7	1.4	15	4.2	3.1	9.9	4.2	6.8	22	26	1.6	23	0.8
Sep-20	46	63	14	0	0.1	0	23	4.8	4.2	11	3.7	11	43	22	3.1	27	2.1
Oct-20	37	48	11	0	0.1	0.1	14	2.9	2.8	7.9	3.7	8.1	28	15	4.4	30	7.9
Nov-20	22	33	20	0	10	5.9	10	1.2	0.1	8.9	1.2	25	44	11	3.7	29	8.5
Dec-20	26	35	28	7.1	13	16	6.8	1.1	0	5.4	1.4	15	21	11	0.9	14	11
Jan-21	19	29	25	18	21	20	5.3	0.8	0	5.8	0.9	19	20	8.8	0	7.7	8.8
Feb-21	9.1	9.3	13	11	17	2.6	3.7	0.5	0	3.7	0.6	14	10	5.4	0	4.7	2.2
Mar-21	8.2	10	11	0	6.9	0	7.2	0.6	0	4.6	0.9	17	12	4.7	0	4.9	1.3
Apr-21	13	25	17	0	6.8	4.5	5.2	0.7	0	4.8	0.9	24	19	6.7	0.5	10	3.8
May-21	46	107	8.3	2.5	14	14	22	4.6	5.9	12	4.7	39	56	21	1.6	16	4.4
Jun-21	41	62	30	0	0.2	6.4	21	3.9	3.9	13	2.9	22	54	19	4.9	33	2
Jul-21	42	66	16	0	0.2	4.2	21	3.7	4.5	11	3.7	16	39	18	4	32	1.5
Aug-21	36	75	15	0.8	0.3	1.8	11	10	0.2	7.9	4.7	7.3	31	14	1.6	23	0.8
Sep-21	37	70	10	5.8	2.6	3.8	17	4	4.9	7.4	4.4	8.1	39	15	3.1	27	2.1
Oct-21	62	96	35	0.6	16	13	21	6.5	1.8	13	3.4	20	45	27	4.4	30	7.9
Nov-21	84	138	77	0.7	12	68	19	7.4	2.9	15	3.1	20	55	36	3.7	29	8.5
Dec-21	24	37	41	0.2	5.5	10	6.4	1.4	0.4	6.7	1.2	19	33	13	0.9	14	11
Jan-22	9.9	14	19	1.3	14	3.4	7.7	0	0	4.2	0.8	15	19	6.5	0	7.7	8.8
Feb-22	6.5	8.1	7.9	0	7	1.8	10	0	0	3.7	0.9	10	13	4.3	0	4.7	2.2
Mar-22	4.3	6.6	5.8	0	12	0	9.2	0	0	2.6	0.8	8.5	11	3.1	0	4.9	1.3
Apr-22	18	27	22	10	22	8.2	6.5	1.4	1	7.3	1.2	27	30	12	0.5	10	3.8
May-22	38	69	8	0	7.4	2.8	33	7.6	6.8	14	4.4	32	79	17	1.6	16	4.4
Jun-22	22	35	6.1	0	0	0	11	2.8	3.2	6.6	2.7	11	42	11	4.9	33	2
Jul-22	36	45	18	0	3.6	0.9	12	3.9	4.9	8.5	3.6	8.5	26	17	4	32	1.5
Aug-22	86	129	22	0.2	3.5	12	28	8	14	17	6.3	19	38	36	1.6	23	0.8
Sep-22	39	65	33	0	0.3	4	13	4.9	3.2	9.1	3.4	6.7	37	18	3.1	27	2.1
Oct-22	73	103	23	0.4	3.5	7.1	28	13	6.5	17	6.8	16	58	33	4.4	30	7.9
Nov-22	39	78	50	1.6	0.7	19	8.6	2	2.5	10	2.5	17	38	20	3.7	29	8.5
Dec-22	19	49	28	3.5	21	24	5.1	1.5	0.8	5	1	14	24	10	0.9	14	11
Jan-23	9.7	21	21	7.3	18	6.5	3.2	0.7	0.4	3	0.9	11	14	5.2	0	7.7	8.8
Feb-23	6.9	13	15	6.2	17	6.9	3	0.6	0	2.3	0.5	9	20	3.9	0	4.7	2.2
Mar-23	5.1	14	17	3.8	13	8.5	4.9	0.8	0	5.5	0.6	14	19	4	0	4.9	1.3
Apr-23	10	20	11	2.6	4.5	2.1	5.9	1.3	0.7	7.1	1.1	25	15	5.4	0.5	10	3.8
May-23	13	28	12	2.3	12	5.5	9.2	1.6	1.2	6	1.4	14	30	6.2	1.6	16	4.4
Jun-23	12	25	4.1	0	0.2	0.6	8.5	2.6	1.5	3.4	2.5	4.9	48	4.9	4.9	33	2
Jul-23	34	42	4	0	0.1	0	13	4.4	3.6	8.1	4.4	5.4	26	15	4	32	1.5
Aug-23	9	9.1	2.8	2	0.2	0	3.8	1.2	0	2.7	1.3	1.4	7.3	4.5	1.6	23	0.8
Sep-23	25	44	4.1	0.1	1.9	0	30	4.6	3	8.1	2.9	19	65	12	3.1	27	2.1
Oct-23	57	117	20	8.7	27	24	24	4.2	3.4	14	3.9	45	64	28	4.4	30	7.9
Nov-23	76	148	44	27	47	39	24	2.9	3.6	26	3.6	72	60	42	3.7	29	8.5
Dec-23	19	49	28	3.5	21	24	5.1	1.5	0.8	5	1	14	24	10	0.9	14	11

## Annexure 03

100 inflow scenarios generated from SDDP from November 2024 to October 2025 (GWh)

	11/2024	12/2024	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025
Series 0001	497.4	292.4	277.7	206.8	181.6	258.5	539.2	564.3	464.7	223.8	291.8	602.5
Series 0002	457.7	558.8	305.9	176.3	170.3	435.7	363.4	370.4	489.5	288.4	565.8	395.3
Series 0003	361.5	476.9	440.4	257.8	304.3	325.2	711.1	619.0	582.3	563.0	291.6	703.9
Series 0004	542.4	333.9	237.6	133.5	122.8	195.7	361.6	467.5	353.4	282.6	323.0	534.7
Series 0005	438.8	544.0	289.0	220.0	196.8	306.4	745.2	393.7	359.9	281.2	289.3	435.9
Series 0006	362.4	351.3	208.9	136.0	112.4	211.6	615.5	340.7	365.8	437.4	407.3	868.5
Series 0007	818.5	678.8	340.4	232.6	169.3	190.8	244.2	293.6	477.2	329.6	431.4	524.9
Series 0008	427.9	206.0	212.4	104.4	129.0	191.7	247.3	477.0	666.1	620.7	955.3	726.7
Series 0009	495.8	487.7	485.2	327.1	200.2	337.1	441.7	741.0	684.3	765.1	469.6	642.1
Series 0010	450.6	523.0	371.3	199.9	95.6	182.2	416.4	485.3	593.3	515.9	576.5	644.6
Series 0011	530.6	418.9	331.1	139.3	144.7	161.8	428.5	749.9	413.3	610.0	310.6	857.7
Series 0012	711.3	455.8	235.8	217.4	169.2	198.1	458.7	323.4	291.0	453.0	448.7	398.0
Series 0013	595.2	962.5	369.8	220.3	218.6	227.5	317.0	340.0	271.2	288.5	300.1	509.4
Series 0014	469.6	317.0	174.2	150.5	139.3	321.1	310.9	518.7	778.0	773.4	724.4	789.8
Series 0015	490.7	322.6	191.9	111.8	116.4	215.4	182.8	283.7	371.0	263.9	437.4	465.3
Series 0016	722.2	358.4	366.6	144.1	142.6	298.9	302.2	193.5	504.1	358.2	280.0	469.5
Series 0017	491.5	933.9	467.2	296.6	226.1	210.1	163.0	149.0	628.1	419.1	249.8	491.6
Series 0018	342.6	465.4	394.6	212.5	245.7	258.5	270.7	212.9	296.1	266.3	699.4	439.9
Series 0019	562.3	567.4	373.9	236.3	166.6	268.8	192.7	122.9	351.0	291.4	276.3	389.8
Series 0020	465.3	538.4	335.9	247.8	206.5	363.0	450.6	363.3	344.7	409.6	286.4	449.9
Series 0021	450.0	225.9	282.8	194.4	162.4	265.2	264.5	526.2	354.8	399.2	399.2	472.3
Series 0022	606.2	357.3	252.9	156.1	136.6	341.2	455.2	320.0	521.0	240.3	190.6	624.4
Series 0023	604.4	597.5	432.9	259.1	174.2	218.3	354.8	593.9	415.2	352.8	296.3	341.2
Series 0024	580.4	487.6	278.9	130.3	86.6	380.3	358.3	238.2	237.9	279.7	220.3	515.5
Series 0025	411.9	572.9	261.3	164.0	57.8	205.1	276.4	438.1	625.9	377.2	269.8	384.8
Series 0026	573.8	577.2	272.0	117.6	64.2	348.5	265.6	141.5	278.7	1050.7	603.8	422.8
Series 0027	511.1	913.9	368.6	219.2	210.8	318.0	427.7	391.1	653.4	389.6	482.0	556.0
Series 0028	683.7	432.1	184.0	127.1	129.2	189.2	216.2	310.5	376.9	247.1	398.0	580.8
Series 0029	714.0	644.3	483.1	357.8	275.9	401.7	213.1	145.4	218.2	228.0	411.8	597.0
Series 0030	870.7	1141.1	731.7	521.5	305.6	281.8	500.8	462.8	431.5	399.6	272.7	647.7
Series 0031	827.7	471.5	261.2	231.1	272.2	280.8	507.1	616.6	674.6	598.2	352.5	867.8
Series 0032	608.9	806.3	640.3	410.3	267.4	259.2	249.4	372.5	337.6	200.4	246.6	499.7
Series 0033	545.5	484.8	276.9	216.0	168.1	231.0	446.8	427.0	474.6	508.5	344.5	598.9
Series 0034	629.1	344.2	183.8	107.5	168.2	216.9	529.0	493.9	349.3	233.0	366.1	413.0
Series 0035	470.5	503.7	245.9	122.4	100.5	187.7	245.8	411.2	542.1	388.2	349.6	531.3
Series 0036	465.9	297.7	200.1	116.6	154.0	126.9	403.8	535.1	404.9	312.0	420.3	363.4
Series 0037	552.8	532.3	364.0	182.1	204.5	250.1	221.2	501.8	407.9	307.7	330.5	350.1
Series 0038	437.2	266.6	139.4	49.2	47.9	306.3	301.2	326.1	427.4	193.0	434.7	606.6
Series 0039	463.6	513.5	331.6	173.7	124.6	296.2	446.8	461.0	609.6	250.2	358.6	290.6
Series 0040	452.1	331.3	134.7	74.4	261.1	373.8	480.0	392.0	558.8	258.5	312.9	502.8
Series 0041	801.8	644.4	336.6	231.2	114.1	300.5	226.3	262.2	440.9	267.8	621.5	345.7
Series 0042	513.1	369.7	195.8	84.8	176.1	185.0	380.4	461.9	368.7	271.2	347.0	466.2
Series 0043	524.0	401.0	158.6	92.0	110.9	114.6	415.6	578.9	514.4	285.7	299.5	579.1

Series 0094	459.3	410.3	262.1	153.8	118.3	135.0	533.0	610.8	377.7	264.9	584.3	417.0
Series 0095	871.3	785.8	316.9	167.0	177.4	391.6	573.1	843.3	539.7	406.8	236.2	330.7
Series 0096	597.9	609.3	277.3	166.7	113.3	379.4	548.7	294.8	717.5	431.8	493.4	563.8
Series 0097	580.1	370.4	203.6	94.2	112.6	211.3	336.9	379.1	653.3	473.2	441.9	634.3
Series 0098	393.8	489.6	346.4	179.0	133.7	199.2	201.3	208.1	572.9	409.0	546.0	751.0
Series 0099	668.8	407.1	193.7	70.3	126.3	195.5	471.5	456.0	298.0	200.0	170.3	324.7
Series 0100	329.7	573.1	333.2	219.0	121.2	228.6	505.4	509.6	581.0	316.5	263.0	479.6