September 27, 2019

Power Grid Corporation of India Limited: Ratings assigned for enhanced amount

Summary of rating action

Instrument*	Previous Rated Amount (Rs. crore)	Current Rated Amount (Rs. crore)	Rating Action
Long term bonds programme	1,16,422.95	1,16,422.95	[ICRA]AAA(stable); outstanding
Commercial Paper	6,000.00	6,000.00	[ICRA]A1+; outstanding
Short term borrowing programme	6,000.00	6,000.00	[ICRA]A1+; outstanding
Working capital loan	300.00	0.00	
Long term loans	45,356.22	45,356.22	[ICRA]AAA(stable); outstanding
Short term non-fund based limits	2200.00	0.00	
Long term/Short Term Fund based/Non-fund based limits	0.00	5,700.00	[ICRA]AAA(stable)/A1+; assigned
Total	**1,76,279.17**	**1,79,479.17**	

**Instrument details are provided in Annexure-1*

Rationale

The rating reflects the strategic role of Power Grid Corporation of India Limited in the Indian power sector by way of development of inter-state transmission network, low level of business risks in its core operations given the near monopoly in inter-state transmission and the cost plus transmission tariff structure for majority of its operational assets and superior operating efficiency as indicated by availability factor of 99.79% for its transmission network in FY2017, 99.81% in FY2018 , 99.71% in FY2019 and 99.77% in Q1 FY2020. In FY2019, the company incurred a capital expenditure of Rs 25,807 crore on consolidated basis (Rs. 25,791 crore in FY2018) while capitalization of transmission assets stood at Rs 25,869 crore in FY2019 (Rs. 27,928 crore in FY2018). In Q1 FY2020, the company incurred capital expenditure of Rs 2,909 crore while capitalization of transmission assets stood at Rs 1,466 crore on consolidated basis which is expected to boost the company's revenues and cash flows going forward.

ICRA continues to take into consideration the support from Government of India in the form of guarantees to PGCIL for some of its borrowing programmes to raise long-term funds at competitive rates. The timely collection from state distribution utilities is ensured by presence of letter of credit for one month of billing as per terms of Transmission Service Agreement and presence of tripartite agreement between RBI, Government of India and state governments. The tripartite agreement earlier valid till October 2016 has been extended by 29 states (as on June 30, 2019) while signing of extension is in progress for other states. PGCIL's cash collections have continued to remain strong since 2003-04 as a result of tripartite agreement for settlement of SEB dues and the resultant payment discipline. This is also reflected in its collection efficiency of 99.4% in FY 2017 and 98.7% in FY2018 although the same declined to 94.9% in FY2019 and 91.2% in Q1 FY2020 due to delay in payments from state distribution utilities.

Nevertheless, sustainability of the collection performance, going forward, remains an issue if sectoral reforms do not result in a fundamental improvement in the financial position of the state power utilities. In this context, ICRA notes that state governments issued bonds worth Rs 2.32 lakh crore as part of UDAY scheme which improved the financial position of state distribution utilities. However, timely issuance of tariff orders, adequate tariff hikes for reduction of revenue gaps and time-bound recovery of the regulatory assets and reduction of distribution loss levels going forward remains imperative for improvement in the financial health of the power distribution sector, thereby reducing counter party credit risks of entities serving the power sector, including transmission companies such as PGCIL.

ICRA notes that new projects are awarded either on nomination basis or through tariff based competitive bidding. The projects awarded through competitive bidding process shall not have cost overruns as pass-through in tariffs, thus resulting in increased business risks in the core business, although the proportion of such assets as a percentage of total gross block is expected to remain low in the near foreseeable future. PGCIL is expected to incur significant capital expenditure in coming years although lower than past trends, which exposes the company to significant project execution risks. Furthermore, sizeable debt remains to be raised for funding the aforementioned capex which exposes the company to funding risks and will also result in high gearing in the medium term. While PGCIL's debt service coverage indicators are relatively modest for the assigned rating levels, its strategic position in the Indian power sector, low business risks, sovereign ownership and strong operational efficiency are significant positives from the credit perspective.

The stable outlook on the [ICRA]AAA rating reflects ICRA's opinion that PGCIL will continue to benefit from the cost-plus nature of transmission tariff of majority of its assets, the satisfactory operational performance and timely payments from customers (primarily state distribution utilities).

Key rating drivers and their description

Credit strengths

Significant government ownership and support extended by government- PGCIL is India's Central Transmission Utility and the largest transmission company in the country. Government of India holding 55.37% shares in PGCIL as on June 30, 2019. PGCIL is also executing several strategically important projects assigned by Government of India. The government has extended support in the form of guarantees for some of the loans availed by the company.

Large network of transmission assets with satisfactory operational performance- As on June 30, 2019, the company owned transmission lines of 158,858 ckm and 246 substations with capacity of 375,142 MVA including subsidiaries. PGCIL demonstrated system availability of 99.79% in FY2017, 99.81% in FY2018, 99.71% in FY2019 and 99.77% in Q1 FY2020 as against minimum target of 98% as per CERC norms, thereby ensuring recovery of annual transmission charges and also earning incentive for availability being higher than normative level

Cost plus nature of tariff for majority of assets ensures healthy return on equity, CERC tariff norms for FY2020-24 are neutral for the company- The company generates stable revenue and cash flows on account of significant portion of transmission assets being commissioned under cost-plus tariff norms by CERC for transmission projects. The company needs to ensure network availability above the normative level in order to recover annual transmission charges which includes return on equity, tax on return on equity, interest on term loan, interest on working capital loan, operation and maintenance expenses and depreciation. The CERC tariff norms for FY2020-24 notified on March 07, 2019 are largely in line with tariff norms for FY2014-19 including return on equity of 15.5% (pre-tax), normative debt equity ratio of 70:30, normative operation and maintenance expenses and escalation rate at 3.5% higher than FY2014-19 which is a positive.

Credit challenges

Exposure to state distribution utilities which have relatively weak financial profile- The rating of the company is constrained by the weak financial profile of the counter parties i.e. state distribution utilities. The company has demonstrated satisfactory collection efficiency of 99.4% in FY2017 and 98.7% in FY2018 although the same declined to

94.9% in FY2019 and 91.2% in Q1 FY2020 on account of delay in payments from state distribution utilities. The tripartite mechanism for payment security between RBI, Government of India and State Governments for recovery of dues in case of delay in payments from state distribution utilities which was valid till October 2016 has been extended by 29 states as on June 30, 2019 while signing is in progress with other states. The presence of tripartite agreement apart from letter of credit amounting to one month billing as per terms of Transmission Service Agreement mitigates counter party credit risk to some extent

Liquidity position: Strong

PGCIL's liquidity is **strong** with satisfactory operational performance and cost plus nature of transmission charges with recovery of transmission charges linked to line availability and not actual flow of power. The operational track record of the company is satisfactory in FY2019 and Q1 FY2020 as evident from the line availability of 99.71% and 99.77% respectively which is higher than normative line availability for recovery of transmission charges. The company is expected to demonstrate satisfactory operational performance in near future as well. The capitalization of transmission assets by the company stood at Rs 25,869 crore in FY2019 and Rs 1,466 crore in Q1 FY2020 which is expected to boost the company's revenues and cash flows going forward subject to satisfactory operational performance. On consolidated basis, the debtors increased to Rs 5,793 crore as on June 30, 2019 as against Rs 4,728 crore as on March 31, 2019 on account of higher transmission income in Q1 FY2020 and delay in payments from state distribution utilities. However, presence of LC and tripartite agreement mitigates counter party credit risk to some extent. The company has long term debt repayment of Rs 10,747 crore in FY2020. The cash flows are expected to be sufficient to meet the debt servicing obligations in near term.

Rating sensitivities

Positive triggers – Not Applicable.

Negative triggers – Significant delay in payment from state distribution utilities which persists for a long period of time

Analytical approach

Analytical Approach	Comments
Applicable Rating Methodologies	Corporate Credit Rating Methodology Rating Methodology for Power Transmission Companies
Parent/Group Support	The rating derives strength from PGCIL's majority ownership by the Government of India (55.37% as on June 30, 2019) and its role in power sector in India
Consolidation/Standalone	The rating is based on consolidated financial statements of the company

About the company

Power Grid Corporation of India Limited (PGCIL) is India's central transmission utility and the largest electric power transmission commission in the country. As on June 30, 2019, PGCIL owned transmission lines of 158,858 ckm and 246 substations with capacity of 375,142 MVA including subsidiaries.

In FY2019, the company reported a net profit of Rs 10,034 crore on an operating income of Rs 35,059 crore as against net profit of Rs 8,204 crore on an operating income of Rs 29,954 crore in FY2018 on consolidated basis.

Key financial indicators- Consolidated (audited)

	FY2018	FY2019
Operating Income (Rs. crore)	29,954	35,059
PAT (Rs. crore)	8,204	10,034
OPBDIT/OI (%)	87.8%	86.9%
RoCE (%)	14.4%	10.7%
Total Outside Liabilities/Tangible Net Worth (times)	3.14	3.19
Total Debt/OPBDIT (times)	5.00	4.80
Interest Coverage (times)	3.59	3.49
DSCR	1.81	1.71

Status of non-cooperation with previous CRA: Not applicable

Any other information: None

Rating history for past three years

	Rating (FY2020)								Rating History for the Past 3 Years				
				Current Rating		Earlier Rating		FY2019	FY2018		FY2017	
	Instrument	Type	Amount Rated	Amount Outstanding as on June 30, 2019	27-Sep-2019	03-Jul-2019	09-May-2019	05-Apr-2018	25-Apr-2017	07-Apr-2017	30-May-2016	28-Apr-2016
1	Long term bonds	Long Term	116,422.95	**76,926.50**	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA (stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)
2	Commercial Paper	Short Term	6000.00	-	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+
3	Short term borrowing programme	Short Term	6000.00	-	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+
4	Long term loans	Long Term	45,356.22	**26,860.40**	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA (stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)
5	Working capital loan	Long Term	-	-	-	[ICRA]AAA(stable)	[ICRA]AAA (stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)	[ICRA]AAA(stable)
6	Short term non	Short Term	-	-	-	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+	[ICRA]A1+

	fund based limits											
7	Long term/ short term fund based/ non fund based limits*	Long term/ Short Term	5,700.00	-	[ICRA]AAA(stable)/A1+				[ICRA]AAA(stable)/ A1+	[ICRA]AAA(stable)/A1+	[ICRA]AAA(stable)/ A1+	[ICRA]AAA(stable)/A1+

Amount in Rs. Crore

*Long term/short term fund based/ non fund based limits comprise of Rs 3000.00 crore of cash credit (fund based limits), Rs 1100.00 crore bank guarantee and Rs 1600.00 crore letter of credit. The limits are inter-changeable

Complexity level of the rated instrument

ICRA has classified various instruments based on their complexity as "Simple", "Complex" and "Highly Complex". The classification of instruments according to their complexity levels is available on the website www.icra.in

Annexure-1: Instrument details

ISIN No	Instrument Name	Date of Issuance / Sanction	Coupon Rate	Maturity Date	Amount Rated (Rs. crore)	Current Rating and Outlook
INE752E07AO8	BOND - XVIII ISSUE	9-Mar-06	8.15%	9-Mar-20	83.25	[ICRA]AAA (stable)
INE752E07AP5	BOND - XVIII ISSUE	9-Mar-06	8.15%	9-Mar-21	83.25	[ICRA]AAA (stable)
INE752E07AZ4	BOND - XIX ISSUE	24-Jul-06	9.25%	24-Jul-19	41.25	[ICRA]AAA (stable)
INE752E07BA5	BOND - XIX ISSUE	24-Jul-06	9.25%	24-Jul-20	41.25	[ICRA]AAA (stable)
INE752E07BB3	BOND - XIX ISSUE	24-Jul-06	9.25%	24-Jul-21	41.25	[ICRA]AAA (stable)
INE752E07BM0	BOND - XX ISSUE	7-Sep-06	8.93%	7-Sep-19	125	[ICRA]AAA (stable)
INE752E07BN8	BOND - XX ISSUE	7-Sep-06	8.93%	7-Sep-20	125	[ICRA]AAA (stable)
INE752E07BC1	BOND - XX ISSUE	7-Sep-06	8.93%	7-Sep-21	125	[ICRA]AAA (stable)
INE752E07BX7	BOND - XXI ISSUE	11-Oct-06	8.73%	11-Oct-19	42.5	[ICRA]AAA (stable)
INE752E07BY5	BOND - XXI ISSUE	11-Oct-06	8.73%	11-Oct-20	42.5	[ICRA]AAA (stable)
INE752E07BZ2	BOND - XXI ISSUE	11-Oct-06	8.73%	11-Oct-21	42.5	[ICRA]AAA (stable)
INE752E07CJ4	BOND - XXII ISSUE	7-Dec-06	8.68%	7-Dec-19	57.5	[ICRA]AAA (stable)
INE752E07CK2	BOND - XXII ISSUE	7-Dec-06	8.68%	7-Dec-20	57.5	[ICRA]AAA (stable)
INE752E07CL0	BOND - XXII ISSUE	7-Dec-06	8.68%	7-Dec-21	57.5	[ICRA]AAA (stable)
INE752E07CV9	BOND - XXIII ISSUE	9-Feb-07	9.25%	9-Feb-20	25.625	[ICRA]AAA (stable)
INE752E07CW7	BOND - XXIII ISSUE	9-Feb-07	9.25%	9-Feb-21	25.625	[ICRA]AAA (stable)
INE752E07CX5	BOND - XXIII ISSUE	9-Feb-07	9.25%	9-Feb-22	25.625	[ICRA]AAA (stable)
INE752E07DH6	BOND - XXIV ISSUE	26-Mar-07	9.95%	26-Mar-20	66.625	[ICRA]AAA (stable)
INE752E07DI4	BOND - XXIV ISSUE	26-Mar-07	9.95%	26-Mar-21	66.625	[ICRA]AAA (stable)
INE752E07DJ2	BOND - XXIV ISSUE	26-Mar-07	9.95%	26-Mar-22	66.625	[ICRA]AAA (stable)
INE752E07DT1	BOND - XXV ISSUE	12-Jun-07	10.10%	12-Jun-20	88.75	[ICRA]AAA (stable)
INE752E07DU9	BOND - XXV ISSUE	12-Jun-07	10.10%	12-Jun-21	88.75	[ICRA]AAA (stable)
INE752E07DV7	BOND - XXV ISSUE	12-Jun-07	10.10%	12-Jun-22	88.75	[ICRA]AAA (stable)
INE752E07EE1	BOND - XXVI ISSUE	7-Mar-08	9.30%	7-Mar-20	83.25	[ICRA]AAA (stable)
INE752E07EF8	BOND - XXVI ISSUE	7-Mar-08	9.30%	7-Mar-21	83.25	[ICRA]AAA (stable)
INE752E07EG6	BOND - XXVI ISSUE	7-Mar-08	9.30%	7-Mar-22	83.25	[ICRA]AAA (stable)
INE752E07EH4	BOND - XXVI ISSUE	7-Mar-08	9.30%	7-Mar-23	83.25	[ICRA]AAA (stable)
INE752E07EQ5	BOND - XXVII ISSUE	31-Mar-08	9.47%	31-Mar-20	58.75	[ICRA]AAA (stable)
INE752E07ER3	BOND - XXVII ISSUE	31-Mar-08	9.47%	31-Mar-21	58.75	[ICRA]AAA (stable)
INE752E07ES1	BOND - XXVII ISSUE	31-Mar-08	9.47%	31-Mar-22	58.75	[ICRA]AAA (stable)
INE752E07ET9	BOND - XXVII ISSUE	31-Mar-08	9.47%	31-Mar-23	58.75	[ICRA]AAA (stable)
INE752E07FB4	BOND - XXVIII ISSUE	15-Dec-08	9.33%	15-Dec-19	200	[ICRA]AAA (stable)
INE752E07FC2	BOND - XXVIII ISSUE	15-Dec-08	9.33%	15-Dec-20	200	[ICRA]AAA (stable)
INE752E07FD0	BOND - XXVIII ISSUE	15-Dec-08	9.33%	15-Dec-21	200	[ICRA]AAA (stable)
INE752E07FE8	BOND - XXVIII ISSUE	15-Dec-08	9.33%	15-Dec-22	200	[ICRA]AAA (stable)
INE752E07FF5	BOND - XXVIII ISSUE	15-Dec-08	9.33%	15-Dec-23	200	[ICRA]AAA (stable)

INE752E07FN9	BOND - XXIX ISSUE	12-Mar-09	9.20%	12-Mar-20	108.125	[ICRA]AAA (stable)
INE752E07FO7	BOND - XXIX ISSUE	12-Mar-09	9.20%	12-Mar-21	108.125	[ICRA]AAA (stable)
INE752E07FP4	BOND - XXIX ISSUE	12-Mar-09	9.20%	12-Mar-22	108.125	[ICRA]AAA (stable)
INE752E07FQ2	BOND - XXIX ISSUE	12-Mar-09	9.20%	12-Mar-23	108.125	[ICRA]AAA (stable)
INE752E07FR0	BOND - XXIX ISSUE	12-Mar-09	9.20%	12-Mar-24	108.125	[ICRA]AAA (stable)
INE752E07FY6	BOND - XXX ISSUE	29-Sep-09	8.80%	29-Sep-19	194.375	[ICRA]AAA (stable)
INE752E07FZ3	BOND - XXX ISSUE	29-Sep-09	8.80%	29-Sep-20	194.375	[ICRA]AAA (stable)
INE752E07GA4	BOND - XXX ISSUE	29-Sep-09	8.80%	29-Sep-21	194.375	[ICRA]AAA (stable)
INE752E07GB2	BOND - XXX ISSUE	29-Sep-09	8.80%	29-Sep-22	194.375	[ICRA]AAA (stable)
INE752E07GC0	BOND - XXX ISSUE	29-Sep-09	8.80%	29-Sep-23	194.375	[ICRA]AAA (stable)
INE752E07GD8	BOND - XXX ISSUE	29-Sep-09	8.80%	29-Sep-24	194.375	[ICRA]AAA (stable)
INE752E07GK3	BOND - XXXI ISSUE	25-Feb-10	8.90%	25-Feb-20	170.625	[ICRA]AAA (stable)
INE752E07GL1	BOND - XXXI ISSUE	25-Feb-10	8.90%	25-Feb-21	170.625	[ICRA]AAA (stable)
INE752E07GM9	BOND - XXXI ISSUE	25-Feb-10	8.90%	25-Feb-22	170.625	[ICRA]AAA (stable)
INE752E07GN7	BOND - XXXI ISSUE	25-Feb-10	8.90%	25-Feb-23	170.625	[ICRA]AAA (stable)
INE752E07GO5	BOND - XXXI ISSUE	25-Feb-10	8.90%	25-Feb-24	170.625	[ICRA]AAA (stable)
INE752E07GP2	BOND - XXXI ISSUE	25-Feb-10	8.90%	25-Feb-25	170.625	[ICRA]AAA (stable)
INE752E07GW8	BOND - XXXII ISSUE	29-Mar-10	8.84%	29-Mar-20	86.25	[ICRA]AAA (stable)
INE752E07GX6	BOND - XXXII ISSUE	29-Mar-10	8.84%	29-Mar-21	86.25	[ICRA]AAA (stable)
INE752E07GY4	BOND - XXXII ISSUE	29-Mar-10	8.84%	29-Mar-22	86.25	[ICRA]AAA (stable)
INE752E07GZ1	BOND - XXXII ISSUE	29-Mar-10	8.84%	29-Mar-23	86.25	[ICRA]AAA (stable)
INE752E07HA2	BOND - XXXII ISSUE	29-Mar-10	8.84%	29-Mar-24	86.25	[ICRA]AAA (stable)
INE752E07HB0	BOND - XXXII ISSUE	29-Mar-10	8.84%	29-Mar-25	86.25	[ICRA]AAA (stable)
INE752E07HH7	BOND - XXXIII ISSUE	8-Jul-10	8.64%	8-Jul-19	240	[ICRA]AAA (stable)
INE752E07HI5	BOND - XXXIII ISSUE	8-Jul-10	8.64%	8-Jul-20	240	[ICRA]AAA (stable)
INE752E07HJ3	BOND - XXXIII ISSUE	8-Jul-10	8.64%	8-Jul-21	240	[ICRA]AAA (stable)
INE752E07HK1	BOND - XXXIII ISSUE	8-Jul-10	8.64%	8-Jul-22	240	[ICRA]AAA (stable)
INE752E07HL9	BOND - XXXIII ISSUE	8-Jul-10	8.64%	8-Jul-23	240	[ICRA]AAA (stable)
INE752E07HM7	BOND - XXXIII ISSUE	8-Jul-10	8.64%	8-Jul-24	240	[ICRA]AAA (stable)
INE752E07HN5	BOND - XXXIII ISSUE	8-Jul-10	8.64%	8-Jul-25	240	[ICRA]AAA (stable)
INE752E07HT2	BOND - XXXIV ISSUE	21-Oct-10	8.84%	21-Oct-19	290.625	[ICRA]AAA (stable)
INE752E07HU0	BOND - XXXIV ISSUE	21-Oct-10	8.84%	21-Oct-20	290.625	[ICRA]AAA (stable)
INE752E07HV8	BOND - XXXIV ISSUE	21-Oct-10	8.84%	21-Oct-21	290.625	[ICRA]AAA (stable)
INE752E07HW6	BOND - XXXIV ISSUE	21-Oct-10	8.84%	21-Oct-22	290.625	[ICRA]AAA (stable)
INE752E07HX4	BOND - XXXIV ISSUE	21-Oct-10	8.84%	21-Oct-23	290.625	[ICRA]AAA (stable)
INE752E07HY2	BOND - XXXIV ISSUE	21-Oct-10	8.84%	21-Oct-24	290.625	[ICRA]AAA (stable)

INE752E07HZ9	BOND - XXXIV ISSUE	21-Oct-10	8.84%	21-Oct-25	290.625	[ICRA]AAA (stable)
INE752E07IF9	BOND - XXXV ISSUE	31-May-11	9.64%	31-May-20	163.125	[ICRA]AAA (stable)
INE752E07IG7	BOND - XXXV ISSUE	31-May-11	9.64%	31-May-21	163.125	[ICRA]AAA (stable)
INE752E07IH5	BOND - XXXV ISSUE	31-May-11	9.64%	31-May-22	163.125	[ICRA]AAA (stable)
INE752E07II3	BOND - XXXV ISSUE	31-May-11	9.64%	31-May-23	163.125	[ICRA]AAA (stable)
INE752E07IJ1	BOND - XXXV ISSUE	31-May-11	9.64%	31-May-24	163.125	[ICRA]AAA (stable)
INE752E07IK9	BOND - XXXV ISSUE	31-May-11	9.64%	31-May-25	163.125	[ICRA]AAA (stable)
INE752E07IL7	BOND - XXXV ISSUE	31-May-11	9.64%	31-May-26	163.125	[ICRA]AAA (stable)
INE752E07IP8	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-19	206	[ICRA]AAA (stable)
INE752E07IQ6	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-20	206	[ICRA]AAA (stable)
INE752E07IR4	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-21	206	[ICRA]AAA (stable)
INE752E07IS2	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-22	206	[ICRA]AAA (stable)
INE752E07IT0	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-23	206	[ICRA]AAA (stable)
INE752E07IU8	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-24	206	[ICRA]AAA (stable)
INE752E07IV6	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-25	206	[ICRA]AAA (stable)
INE752E07IW4	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-26	206	[ICRA]AAA (stable)
INE752E07IX2	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-27	206	[ICRA]AAA (stable)
INE752E07IY0	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-28	206	[ICRA]AAA (stable)
INE752E07IZ7	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-29	206	[ICRA]AAA (stable)
INE752E07JA8	BOND - XXXVI ISSUE	29-Aug-11	9.35%	29-Aug-30	206	[ICRA]AAA (stable)
INE752E07JF7	BOND - XXXVII ISSUE	26-Dec-11	9.25%	26-Dec-19	166.25	[ICRA]AAA (stable)
INE752E07JG5	BOND - XXXVII ISSUE	26-Dec-11	9.25%	26-Dec-20	166.25	[ICRA]AAA (stable)
INE752E07JH3	BOND - XXXVII ISSUE	26-Dec-11	9.25%	26-Dec-21	166.25	[ICRA]AAA (stable)
INE752E07JI1	BOND - XXXVII ISSUE	26-Dec-11	9.25%	26-Dec-22	166.25	[ICRA]AAA (stable)
INE752E07JJ9	BOND - XXXVII ISSUE	26-Dec-11	9.25%	26-Dec-23	166.25	[ICRA]AAA (stable)
INE752E07JK7	BOND - XXXVII ISSUE	26-Dec-11	9.25%	26-Dec-24	166.25	[ICRA]AAA (stable)
INE752E07JL5	BOND - XXXVII ISSUE	26-Dec-11	9.25%	26-Dec-25	166.25	[ICRA]AAA (stable)
INE752E07JM3	BOND - XXXVII ISSUE	26-Dec-11	9.25%	26-Dec-26	166.25	[ICRA]AAA (stable)

INE752E07JN1	BOND - XXXVIII ISSUE	9-Mar-12	9.25%	9-Mar-27	855	[ICRA]AAA (stable)
INE752E07JO9	BOND - XXXIX ISSUE	29-Mar-12	9.40%	29-Mar-27	1800	[ICRA]AAA (stable)
INE752E07JT8	BOND - XL ISSUE	28-Jun-12	9.30%	28-Jun-20	333.125	[ICRA]AAA (stable)
INE752E07JU6	BOND - XL ISSUE	28-Jun-12	9.30%	28-Jun-21	333.125	[ICRA]AAA (stable)
INE752E07JV4	BOND - XL ISSUE	28-Jun-12	9.30%	28-Jun-22	333.125	[ICRA]AAA (stable)
INE752E07JW2	BOND - XL ISSUE	28-Jun-12	9.30%	28-Jun-23	333.125	[ICRA]AAA (stable)
INE752E07JX0	BOND - XL ISSUE	28-Jun-12	9.30%	28-Jun-24	333.125	[ICRA]AAA (stable)
INE752E07JY8	BOND - XL ISSUE	28-Jun-12	9.30%	28-Jun-25	333.125	[ICRA]AAA (stable)
INE752E07JZ5	BOND - XL ISSUE	28-Jun-12	9.30%	28-Jun-26	333.125	[ICRA]AAA (stable)
INE752E07KA6	BOND - XL ISSUE	28-Jun-12	9.30%	28-Jun-27	333.125	[ICRA]AAA (stable)
INE752E07KE8	BOND - XLI ISSUE	19-Oct-12	8.85%	19-Oct-19	236.875	[ICRA]AAA (stable)
INE752E07KF5	BOND - XLI ISSUE	19-Oct-12	8.85%	19-Oct-20	236.875	[ICRA]AAA (stable)
INE752E07KG3	BOND - XLI ISSUE	19-Oct-12	8.85%	19-Oct-21	236.875	[ICRA]AAA (stable)
INE752E07KH1	BOND - XLI ISSUE	19-Oct-12	8.85%	19-Oct-22	236.875	[ICRA]AAA (stable)
INE752E07KI9	BOND - XLI ISSUE	19-Oct-12	8.85%	19-Oct-23	236.875	[ICRA]AAA (stable)
INE752E07KJ7	BOND - XLI ISSUE	19-Oct-12	8.85%	19-Oct-24	236.875	[ICRA]AAA (stable)
INE752E07KK5	BOND - XLI ISSUE	19-Oct-12	8.85%	19-Oct-25	236.875	[ICRA]AAA (stable)
INE752E07KL3	BOND - XLI ISSUE	19-Oct-12	8.85%	19-Oct-26	236.875	[ICRA]AAA (stable)
INE752E07KM1	BOND - XLI ISSUE	19-Oct-12	8.85%	19-Oct-27	236.875	[ICRA]AAA (stable)
INE752E07KN9	BOND - XLII ISSUE	13-Mar-13	8.80%	13-Mar-23	1990	[ICRA]AAA (stable)
INE752E07KR0	BOND - XLIII ISSUE	20-May-13	7.93%	20-May-20	260.5	[ICRA]AAA (stable)
INE752E07KS8	BOND - XLIII ISSUE	20-May-13	7.93%	20-May-21	260.5	[ICRA]AAA (stable)
INE752E07KT6	BOND - XLIII ISSUE	20-May-13	7.93%	20-May-22	260.5	[ICRA]AAA (stable)
INE752E07KU4	BOND - XLIII ISSUE	20-May-13	7.93%	20-May-23	260.5	[ICRA]AAA (stable)
INE752E07KV2	BOND - XLIII ISSUE	20-May-13	7.93%	20-May-24	260.5	[ICRA]AAA (stable)
INE752E07KW0	BOND - XLIII ISSUE	20-May-13	7.93%	20-May-25	260.5	[ICRA]AAA (stable)
INE752E07KX8	BOND - XLIII ISSUE	20-May-13	7.93%	20-May-26	260.5	[ICRA]AAA (stable)
INE752E07KY6	BOND - XLIII ISSUE	20-May-13	7.93%	20-May-27	260.5	[ICRA]AAA (stable)
INE752E07KZ3	BOND - XLIII ISSUE	20-May-13	7.93%	20-May-28	260.5	[ICRA]AAA (stable)
INE752E07LB2	BOND - XLIV ISSUE	15-Jul-13	8.70%	15-Jul-23	1322	[ICRA]AAA (stable)
INE752E07LC0	BOND - XLIV ISSUE	15-Jul-13	8.70%	15-Jul-28	1322	[ICRA]AAA (stable)
INE752E07LF3	BOND - XLV ISSUE	28-Feb-14	9.65%	28-Feb-20	166.6	[ICRA]AAA (stable)
INE752E07LG1	BOND - XLV ISSUE	28-Feb-14	9.65%	28-Feb-21	166.6	[ICRA]AAA (stable)
INE752E07LH9	BOND - XLV ISSUE	28-Feb-14	9.65%	28-Feb-22	166.6	[ICRA]AAA (stable)
INE752E07LI7	BOND - XLV ISSUE	28-Feb-14	9.65%	28-Feb-23	166.6	[ICRA]AAA (stable)
INE752E07LJ5	BOND - XLV ISSUE	28-Feb-14	9.65%	28-Feb-24	166.6	[ICRA]AAA (stable)
INE752E07LK3	BOND - XLV ISSUE	28-Feb-14	9.65%	28-Feb-25	166.6	[ICRA]AAA (stable)
INE752E07LL1	BOND - XLV ISSUE	28-Feb-14	9.65%	28-Feb-26	166.6	[ICRA]AAA (stable)
INE752E07LM9	BOND - XLV ISSUE	28-Feb-14	9.65%	28-Feb-27	166.6	[ICRA]AAA (stable)
INE752E07LN7	BOND - XLV ISSUE	28-Feb-14	9.65%	28-Feb-28	166.6	[ICRA]AAA (stable)
INE752E07LO5	BOND - XLV ISSUE	28-Feb-14	9.65%	28-Feb-29	166.6	[ICRA]AAA (stable)
INE752E07LP2	BOND - XLVI ISSUE	4-Sep-14	9.30%	4-Sep-19	1454	[ICRA]AAA (stable)
INE752E07LQ0	BOND - XLVI ISSUE	4-Sep-14	9.30%	4-Sep-24	1454	[ICRA]AAA (stable)
INE752E07LR8	BOND - XLVI ISSUE	4-Sep-14	9.30%	4-Sep-29	1454	[ICRA]AAA (stable)
INE752E07LT4	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-19	220	[ICRA]AAA (stable)
INE752E07LU2	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-20	220	[ICRA]AAA (stable)
INE752E07LV0	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-21	220	[ICRA]AAA (stable)

INE752E07LW8	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-22	220	[ICRA]AAA (stable)
INE752E07LX6	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-23	220	[ICRA]AAA (stable)
INE752E07LY4	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-24	220	[ICRA]AAA (stable)
INE752E07LZ1	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-25	220	[ICRA]AAA (stable)
INE752E07MA2	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-26	220	[ICRA]AAA (stable)
INE752E07MB0	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-27	220	[ICRA]AAA (stable)
INE752E07MC8	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-28	220	[ICRA]AAA (stable)
INE752E07MD6	BOND - XLVII ISSUE	20-Oct-14	8.93%	20-Oct-29	220	[ICRA]AAA (stable)
INE752E07ME4	BOND - XLVIII ISSUE	23-Jan-15	8.20%	23-Jan-20	645	[ICRA]AAA (stable)
INE752E07MF1	BOND - XLVIII ISSUE	23-Jan-15	8.20%	23-Jan-22	645	[ICRA]AAA (stable)
INE752E07MG9	BOND - XLVIII ISSUE	23-Jan-15	8.20%	23-Jan-25	645	[ICRA]AAA (stable)
INE752E07MH7	BOND - XLVIII ISSUE	23-Jan-15	8.20%	23-Jan-30	645	[ICRA]AAA (stable)
INE752E07MI5	BOND - XLIX ISSUE	9-Mar-15	8.15%	9-Mar-20	435	[ICRA]AAA (stable)
INE752E07MJ3	BOND - XLIX ISSUE	9-Mar-15	8.15%	9-Mar-25	435	[ICRA]AAA (stable)
INE752E07MK1	BOND - XLIX ISSUE	9-Mar-15	8.15%	9-Mar-30	435	[ICRA]AAA (stable)
INE752E07MM7	BOND - L ISSUE	27-May-15	8.40%	27-May-20	244	[ICRA]AAA (stable)
INE752E07MN5	BOND - L ISSUE	27-May-15	8.40%	27-May-21	244	[ICRA]AAA (stable)
INE752E07MO3	BOND - L ISSUE	27-May-15	8.40%	27-May-22	244	[ICRA]AAA (stable)
INE752E07MP0	BOND - L ISSUE	27-May-15	8.40%	27-May-23	244	[ICRA]AAA (stable)
INE752E07MQ8	BOND - L ISSUE	27-May-15	8.40%	27-May-24	244	[ICRA]AAA (stable)
INE752E07MR6	BOND - L ISSUE	27-May-15	8.40%	27-May-25	244	[ICRA]AAA (stable)
INE752E07MS4	BOND - L ISSUE	27-May-15	8.40%	27-May-26	244	[ICRA]AAA (stable)
INE752E07MT2	BOND - L ISSUE	27-May-15	8.40%	27-May-27	244	[ICRA]AAA (stable)
INE752E07MU0	BOND - L ISSUE	27-May-15	8.40%	27-May-28	244	[ICRA]AAA (stable)
INE752E07MV8	BOND - L ISSUE	27-May-15	8.40%	27-May-29	244	[ICRA]AAA (stable)
INE752E07MW6	BOND - L ISSUE	27-May-15	8.40%	27-May-30	244	[ICRA]AAA (stable)
INE752E07MX4	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-19	250	[ICRA]AAA (stable)
INE752E07MY2	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-20	250	[ICRA]AAA (stable)
INE752E07MZ9	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-21	250	[ICRA]AAA (stable)
INE752E07NA0	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-22	250	[ICRA]AAA (stable)
INE752E07NB8	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-23	250	[ICRA]AAA (stable)
INE752E07NC6	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-24	250	[ICRA]AAA (stable)
INE752E07ND4	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-25	250	[ICRA]AAA (stable)
INE752E07NE2	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-26	250	[ICRA]AAA (stable)
INE752E07NF9	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-27	250	[ICRA]AAA (stable)
INE752E07NG7	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-28	250	[ICRA]AAA (stable)
INE752E07NH5	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-29	250	[ICRA]AAA (stable)
INE752E07NI3	BOND - LI ISSUE	14-Sep-15	8.40%	14-Sep-30	250	[ICRA]AAA (stable)
INE752E07NJ1	BOND - LII ISSUE	23-Dec-15	8.32%	23-Dec-20	466	[ICRA]AAA (stable)
INE752E07NK9	BOND - LII ISSUE	23-Dec-15	8.32%	23-Dec-25	466	[ICRA]AAA (stable)
INE752E07NL7	BOND - LII ISSUE	23-Dec-15	8.32%	23-Dec-30	466	[ICRA]AAA (stable)
INE752E07NM5	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-20	333	[ICRA]AAA (stable)
INE752E07NN3	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-21	333	[ICRA]AAA (stable)
INE752E07NO1	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-22	333	[ICRA]AAA (stable)
INE752E07NP8	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-23	333	[ICRA]AAA (stable)

INE752E07NQ6	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-24	333	[ICRA]AAA (stable)
INE752E07NR4	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-25	333	[ICRA]AAA (stable)
INE752E07NS2	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-26	333	[ICRA]AAA (stable)
INE752E07NT0	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-27	333	[ICRA]AAA (stable)
INE752E07NU8	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-28	333	[ICRA]AAA (stable)
INE752E07NV6	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-29	333	[ICRA]AAA (stable)
INE752E07NW4	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-30	333	[ICRA]AAA (stable)
INE752E07NX2	BOND - LIII ISSUE	25-Apr-16	8.13%	25-Apr-31	333	[ICRA]AAA (stable)
INE752E07NY0	BOND - LIV ISSUE	15-Jul-16	7.97%	15-Jul-21	1000	[ICRA]AAA (stable)
INE752E07NZ7	BOND - LIV ISSUE	15-Jul-16	7.97%	15-Jul-26	1000	[ICRA]AAA (stable)
INE752E07OA8	BOND - LIV ISSUE	15-Jul-16	7.97%	15-Jul-31	1000	[ICRA]AAA (stable)
INE752E07OB6	BOND - LV ISSUE	21-Sep-16	7.55%	21-Sep-31	1240	[ICRA]AAA (stable)
INE752E07OC4	BOND - LVI ISSUE	18-Oct-16	7.36%	18-Oct-26	1065	[ICRA]AAA (stable)
INE752E07OD2	BOND - LVII ISSUE	21-Dec-16	7.20%	21-Dec-21	2120	[ICRA]AAA (stable)
INE752E07OE0	BOND - LVIII ISSUE	9-Mar-17	7.89%	9-Mar-27	2060	[ICRA]AAA (stable)
INE752E07OF7	LT Bonds	19-Jun-17	7.30%	19-Jun-27	3070	[ICRA]AAA (stable)
INE752E07OG5	LT Bonds	9-Aug-17	7.20%	9-Aug-27	3060	[ICRA]AAA (stable)
INE752E08502	LT Bonds	12-Dec-17	7.74%	12-Dec-28	600	[ICRA]AAA (stable)
INE752E08510	LT Bonds	12-Dec-17	7.74%	12-Dec-29	600	[ICRA]AAA (stable)
INE752E08528	LT Bonds	12-Dec-17	7.74%	12-Dec-30	600	[ICRA]AAA (stable)
INE752E08536	LT Bonds	12-Dec-17	7.74%	12-Dec-31	600	[ICRA]AAA (stable)
INE752E08544	LT Bonds	12-Dec-17	7.74%	12-Dec-32	600	[ICRA]AAA (stable)
INE752E07OH3	LT Bonds	7-Jan-19	8.36%	7-Jan-29	2,000.00	[ICRA]AAA (stable)
INE752E08551	GoI Fully serviced bonds	14-Feb-19	8.24%	14-Feb-29	3,487.50	[ICRA]AAA (stable)
	Long term bonds programme*	-	-	-	10000.00	[ICRA]AAA (stable)
	Long term loan**	-	-	-	10000.00	[ICRA]AAA (stable)
	Long term Loan-1#	FY2012	-	FY2027	3638	[ICRA]AAA (stable)
	Long term Loan-2#	FY2014	-	FY2029	9,500	[ICRA]AAA (stable)
	Long term Loan-3#	FY2017	-	FY2032	3000	[ICRA]AAA (stable)
	Long term Loan-4#	FY2018	-	FY2033	5000	[ICRA]AAA (stable)
	Long term Loan-5#	FY2019	-	FY2034	5722.40	[ICRA]AAA (stable)
	Unallocated limits	-	-	-	8495.82	[ICRA]AAA (stable)
	Commercial Paper	-	-	7-365 days	6000.00	[ICRA]A1+
	Short term borrowing programme	-	-	7-365 days	6000.00	[ICRA]A1+
	Long term/ short term fund based/ non fund based limits##	-	-	-	5700.00	[ICRA]AAA (stable)/A1+

#List of ISIN for bonds and term loan limits as on June 30, 2019

*Bonds programme for FY2019-20

**Term loan for FY2019-20

##Long term/short term fund based/ non fund based limits comprise of Rs 3000.00 crore of cash credit (fund based limits), Rs 1100.00 crore bank guarantee and Rs 1600.00 crore letter of credit. The limits are inter-changeable

Source: Power Grid Corporation of India Limited

Annexure-2: List of entities considered for consolidated analysis

Company Name	Ownership	Consolidation Approach
Powergrid Jabalpur Transmission Limited	100.00%	Full Consolidation
Powergrid Kala Amb Transmission Limited	100.00%	Full Consolidation
Powergrid NM Transmission Limited	100.00%	Full Consolidation
Powergrid Parli Transmission Limited	100.00%	Full Consolidation
Powergrid Southern Interconnector Transmission Limited	100.00%	Full Consolidation
Powergrid Unchahar Transmission Limited	100.00%	Full Consolidation
Powergrid Vemagiri Transmission Limited	100.00%	Full Consolidation
Powergrid Vizag Transmission Limited	100.00%	Full Consolidation
Powergrid Warora Transmission Limited	100.00%	Full Consolidation
Powergrid Medinipur Jeerat Transmission Limited	100.00%	Full Consolidation
Powergrid Mithilanchal Transmission Limited	100.00%	Full Consolidation
Powergrid Varanasi Transmission System Limited	100.00%	Full Consolidation
Powergrid Jawaharpur Firozabad Transmission Limited	100.00%	Full Consolidation
Powerlinks Transmission Limited	49.00%	Equity Method
Torrent Powergrid Limited	26.00%	Equity Method
Jaypee Powergrid Limited	26.00%	Equity Method
Parbati Koldam Transmission Company Limited	26.00%	Equity Method
Teestavalley Power Transmission Limited#	28.23%	Equity Method
North East Transmission Company Limited	26.00%	Equity Method
National High Power Test Lab Pvt Limited	20.00%	Equity Method
Bihar Grid Company Limited	50.00%	Equity Method
Kalinga Bidyut Prasaran Nigam Pvt Limited	50.00%	Equity Method
Cross Border Transmission Limited	26.00%	Equity Method
RINL POWERGRID TLT Pvt. Limited	50.00%	Equity Method
Power Transmission Company Nepal Ltd	26.00%	Equity Method

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About ICRA Limited:

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