



CENTRAL POWER PURCHASING AGENCY GUARANTEE LIMITED  
(A Company of Government of Pakistan)

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Blue Area, Islamabad  
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www.cppa.gov.pk

No. CPPA-G/2025/CEO/6018/ 4016

Dated: 15<sup>th</sup> October 2025

The Registrar NEPRA  
NEPRA Tower Ataturk Avenue (East),  
Sector G-5/1, Islamabad.

SUBJECT: XWDISCOs' ENERGY PURCHASE DATA FOR MONTH OF SEPTEMBER 2025

With reference to the FCA mechanism provided in XWDISCOs' tariff determination, please find attached the Energy Data for the month of September 2025. The soft copy of the data is also being sent for further consideration, please.

  
CHIEF FINANCIAL OFFICER

CC:

- Joint Secretary (PF) Power Division, Islamabad.
- Master File

REGISTRAR OFFICE  
Diary No: 12511  
Date: 20.10.25

Tariff Division Record

Dy No: 4901  
Dated: 21-10-25

  
For information & n.a, please.

- DG (Tariff)
- Copy to: CC: Chairman
- DG ( ) - M (Tariff)
- M/F

TARIFF (DEPARTMENT)

Dir (T-I)..... Dir (T-II).....

Dir (T-III)..... Dir (T-IV).....

Dir (T-V)..... Addl. Dir (RE).....

Date: 21-10-25



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## **CERTIFICATE**

### **FOR FUEL ADJUSTMENT IN THE CONSUMER-END TARIFF**

#### **REGARDING 1994 POWER POLICY**

**FOR THE MONTH OF SEPTEMBER 2025**

This is to certify that: -

- i) All purchases have been made from IPPs under 1994 Policy, including Chasnupp and excluding Tavanir, having valid generation license issued by NEPRA.
- ii) Invoices of all Electricity Purchases have been made strictly in accordance with the rates, terms & conditions as stipulated in the respective Power Purchase Agreements.
- iii) All payments to IPPs are being made after observing all formalities provided in the respective Power Purchase Agreements.
- iv) All purchases have been made in accordance with the Power Purchase Agreement.

The above statement is true, based on facts and from verifiable documentary evidence. In case of any deviation / variation observed if not rectified at later stage, CPPA-G will be responsible for the consequences arising out of any misstatement under NEPRA Act and its Rules & Regulations.

**DGM Technical-I, CPPA-G**

15-10-2025

**DGM Technical-II, CPPA-G**

**DGM Technical-III, CPPA-G**

**DGMF-I, CPPA-G**



## **CERTIFICATE**

### **FOR FUEL ADJUSTMENT IN THE CONSUMER-END TARIFF**

#### **REGARDING 2002 POWER POLICY**

**FOR THE MONTH OF SEPTEMBER 2025**

This is to certify that:-

- 1) All purchases have been made from Generation Companies having valid generation License issued by NEPRA.
- 2) Invoices of all Electricity Purchases have been processed in accordance with the rates, terms & conditions as determined by NEPRA. Payments related to periodical adjustments are also made as per decision of NEPRA.
- 3) The above statement is true, based on facts and from verifiable documentary evidence. In case of any deviation / variation observed if not rectified at later stage, CPPA-G will be responsible for the consequences arising out of any misstatement under NEPRA Act and its Rules & Regulations.

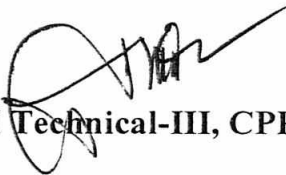
**DGM Technical-I, CPPA-G**



15-10-2025

**DGM Technical-II, CPPA-G**

**DGM Technical-III, CPPA-G**



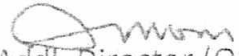
**DGMF-I, CPPA-G**

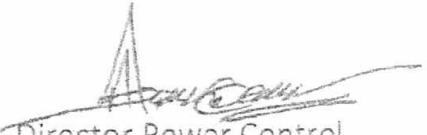


## CERTIFICATE

Subject: MONTHLY FUEL CHARGES ADJUSTMENT OF DISCOS FOR THE MONTH OF SEPTEMBER-2025

- I. It is certified that Economic Merit Order was followed as defined under Section 2 of the NEPRA Licensing (Generation) Rules 2000, while operating Power plants in its fleet during the month of **SEPTEMBER-2025**. However, violations (if any) in Economic Merit Order were purely due to System constraints.
- II. Partial Loading of power plants was strictly in accordance with the provision of their respective Power Purchase Agreement (PPA) and the plants were operated on partial load as per system load demand variations and for fuel conservation where needed.

  
Addl. Director (O&C)  
ISMO, Islamabad

  
Director Power Control  
ISMO, Islamabad

  
Senior Director (Network Operation)  
ISMO, Islamabad

CENTRAL POWER PURCHASING AGENCY (CPPA)  
Energy Procurement Report (Provisional)  
For the Month of September 2025

| S.No.          | Power Producers                    | Fuel           | Energy kWh    | Fuel Charges Rs. | VO&M Charges Rs. | EPP Billing month (Rs.) | Prev. Adjustment in Fuel Cost (Rs.) | Prev. Adjustment in VO&M (Rs.) | Prev. Adjustment in EPP Total Rs. | Supp. Charges | Total Fuel Cost Rs. | Total VO&M Rs. | Total Energy Cost (Rs.) |
|----------------|------------------------------------|----------------|---------------|------------------|------------------|-------------------------|-------------------------------------|--------------------------------|-----------------------------------|---------------|---------------------|----------------|-------------------------|
|                |                                    |                | A             | B                | C                | D=B+C                   | E                                   | F                              | G=E+F                             | H             | I=B+E+H             | J=C+F          | K=D+J                   |
| 1              | Hydel                              |                |               |                  |                  |                         |                                     |                                |                                   |               |                     |                |                         |
| i              | WAPDA                              | Hydel          | 4,177,973,090 |                  | 370,137,929      | 370,137,929             | -                                   | -                              | -                                 | -             | -                   | 370,137,929    | 370,137,929             |
| ii             | Jagran                             | Hydel          | 11,285,046    |                  | 29,228,269       | 29,228,269              | -                                   | 25,772,453                     | 25,772,453                        | -             | -                   | 55,000,722     | 55,000,722              |
| iii            | Makhdum Shah SHYDO                 | Hydel          | 27,944,150    |                  | 13,293,032       | 13,293,032              | -                                   | -                              | -                                 | -             | -                   | 13,293,032     | 13,293,032              |
| iv             | Larab                              | Hydel          | 8,173,124     |                  | 8,173,124        | 8,173,124               | -                                   | -                              | -                                 | -             | -                   | 8,173,124      | 8,173,124               |
| v              | Star Hydro                         | Hydel          | 38,584,700    |                  | 17,482,728       | 17,482,728              | -                                   | -                              | -                                 | -             | -                   | 17,482,728     | 17,482,728              |
| vi             | Head Maralla                       | Hydel          | -             |                  | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| vii            | Naelum Jhelum                      | Hydel          | -             |                  | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| viii           | Tarika Est. 4                      | Hydel          | -             |                  | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| ix             | Mira Power Limited                 | Hydel          | 39,848,670    |                  | 7,734,627        | 7,734,627               | -                                   | -                              | -                                 | -             | -                   | 7,734,627      | 7,734,627               |
| x              | Garat Khwar HPP                    | Hydel          | 7,175,780     |                  | 1,598,764        | 1,598,764               | -                                   | -                              | -                                 | -             | -                   | 1,598,764      | 1,598,764               |
| xi             | Karat Power Company (Pvt.) Limited | Hydel          | 300,281,200   |                  | 91,886,047       | 91,886,047              | -                                   | 115,974,279                    | 115,974,279                       | -             | -                   | 207,860,326    | 207,860,326             |
| xii            | Ranolia Hydro Power Complex        | Hydel          | -             |                  | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xiii           | S K Hydro (Private) Limited        | Hydel          | 171,740,000   |                  | 82,998,890       | 82,998,890              | -                                   | 782,861,911                    | 782,861,911                       | -             | -                   | 865,760,809    | 865,760,809             |
| xiv            | Hydel Total:                       |                | 4,763,262,056 | -                | 622,433,418      | 622,433,418             | -                                   | 924,608,643                    | 924,608,643                       | -             | -                   | 1,547,042,061  | 1,547,042,061           |
| 2              | Ex-WAPDA GENCOs                    |                |               |                  |                  |                         |                                     |                                |                                   |               |                     |                |                         |
| i              | GENCO-I ***                        |                |               |                  |                  |                         |                                     |                                |                                   |               |                     |                |                         |
| ii             | Jamshoro Block 1                   | RFO            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| iii            | Unit 1                             | Gas            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| iv             | Jamshoro Block 2                   | Unit-2         | RFO           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| v              |                                    | Unit-2         | Gas           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| vi             |                                    | Unit-3         | RLNG          | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| vii            |                                    | Unit-3         | RFO           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| viii           |                                    | Unit-3         | Gas           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| ix             |                                    | Unit-4         | RLNG          | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| x              |                                    | Unit-4         | Gas           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xi             |                                    | Unit-4         | RLNG          | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xii            |                                    | Unit-4         | RFO           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xiii           | Block III Kotri 3-7 & IV           | Gas            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xiv            | Jamshoro Coal                      | Coal-Imported  | 101,337,050   | 1,440,972,316    | 32,620,396       | 1,473,592,713           | -                                   | -                              | -                                 | -             | 1,440,972,316       | 32,620,396     | 1,473,592,713           |
| xv             | Jamshoro Total:                    |                | 101,337,050   | 1,440,972,316    | 32,620,396       | 1,473,592,713           | -                                   | -                              | -                                 | -             | 1,440,972,316       | 32,620,396     | 1,473,592,713           |
| ii             | GENCO-II ***                       |                |               |                  |                  |                         |                                     |                                |                                   |               |                     |                |                         |
| i              | Quardu CC Block 1 (OC)             | Gas            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| ii             | Central Block 2 (CC)               | Gas            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| iii            | Quardu (OC) Block-2                | Gas            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| iv             | Block 3 (unit 3&4)                 | Gas            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| v              | Quardu 747 (CC)                    | Gas            | 198,761,000   | 2,160,671,203    | 231,059,863      | 2,391,730,865           | (45,986,100)                        | 6,493,121                      | (39,532,979)                      | -             | 2,114,685,102       | 237,512,784    | 2,352,197,886           |
| vi             | Central Total:                     |                | 198,761,000   | 2,160,671,203    | 231,059,863      | 2,391,730,865           | (45,986,100)                        | 6,493,121                      | (39,532,979)                      | -             | 2,114,685,102       | 237,512,784    | 2,352,197,886           |
| iii            | GENCO-III ***                      |                |               |                  |                  |                         |                                     |                                |                                   |               |                     |                |                         |
| i              | Northern Block 1                   | Unit 1         | RFO           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| ii             |                                    | Unit 2         | RFO           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| iii            |                                    | Unit 3         | RFO           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| iv             |                                    | Unit 1         | Gas           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| v              |                                    | Unit 2         | Gas           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| vi             |                                    | Unit 3         | Gas           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| vii            |                                    | Unit 1         | RLNG          | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| viii           |                                    | Unit 2         | RLNG          | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| ix             |                                    | Unit 3         | RLNG          | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| x              |                                    | Unit 3         | RLNG          | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xi             | Northern Block 2                   | Block-2 Unit 4 | RFO           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xii            |                                    | Block-2 Unit 4 | Gas           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xiii           |                                    | Block-2 Unit 4 | RLNG          | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xiv            | Northern Block 3                   | Block-3 Unit 5 | RFO           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xv             |                                    | Block-3 Unit 5 | Gas           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xvi            |                                    | Block-3 Unit 5 | RLNG          | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xvii           |                                    | Block-3 Unit 6 | RFO           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xviii          |                                    | Block-3 Unit 6 | Gas           | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xix            |                                    | Block-3 Unit 6 | RLNG          | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xx             | Northern Block 4                   | RLNG           | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xxi            | Northern Block 5                   | RFO            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xxii           | Northern Block 5                   | Gas            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xxiii          | Northern Block 6                   | Gas            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| xxiv           | Nandipur                           | RLNG           | 69,036,000    | 1,648,061,910    | 55,325,450       | 1,703,387,360           | (137,247,368)                       | (2,482,696)                    | (139,730,063)                     | -             | 1,510,814,543       | 52,842,755     | 1,563,657,297           |
| xxv            | Northern Total:                    |                | 69,036,000    | 1,648,061,910    | 55,325,450       | 1,703,387,360           | (137,247,368)                       | (2,482,696)                    | (139,730,063)                     | -             | 1,510,814,543       | 52,842,755     | 1,563,657,297           |
| iv             | GENCO-IV LAKHRA                    | Coal           | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| Sub-Total:     |                                    |                | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| GENCOs Total:- |                                    |                | 369,134,050   | 5,249,705,429    | 319,005,509      | 5,568,710,938           | (183,233,468)                       | 3,970,426                      | (179,263,042)                     | -             | 5,066,471,961       | 322,975,935    | 5,389,447,896           |
| 3              | IPPs                               |                |               |                  |                  |                         |                                     |                                |                                   |               |                     |                |                         |
| 1              | Kut Addu Block 1                   | RFO            | 41,949,284    | 1,066,774,741    | 45,477,230       | 1,112,251,971           | -                                   | -                              | -                                 | -             | 1,066,774,741       | 45,477,230     | 1,112,251,971           |
| 2              |                                    | RLNG           | 15,648,595    | 438,431,381      | 14,758,190       | 463,189,571             | -                                   | -                              | -                                 | -             | 438,431,381         | 14,758,190     | 453,189,571             |
| 3              | Kut Addu Block 2                   | RFO            | 17,793,457    | 490,044,261      | 19,289,887       | 509,334,148             | -                                   | -                              | -                                 | -             | 490,044,261         | 19,289,887     | 509,334,148             |
| 4              |                                    | RLNG           | 2,882,942     | 88,115,392       | 2,718,903        | 90,834,295              | -                                   | -                              | -                                 | -             | 88,115,392          | 2,718,903      | 90,834,295              |
| 5              | Kut Addu Block 3                   | RFO            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| 6              |                                    | RLNG           | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| 7              |                                    | HSD            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| KAPCO Total:   |                                    |                | 76,274,288    | 2,083,365,776    | 82,244,209       | 2,165,609,985           | -                                   | -                              | -                                 | -             | 2,083,365,776       | 82,244,209     | 2,165,609,985           |
| 2              | Hub Power                          | RFO            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| 3              | Kohistan Energy                    | RFO            | 5,915,000     | 175,878,469      | 11,233,375       | 187,111,844             | 18,248,747                          | 202,532                        | 16,451,279                        | -             | 192,127,216         | 11,435,907     | 203,563,123             |
| 4              | AES Lalpur                         | RFO            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| 5              | Pak Gen Power Limited              | RFO            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| 6              | Southern Power                     | RFO            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| 7              | Hakdibulah                         | Gas            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| 8              | Fauji Kabiwala                     | RLNG           | 684,950       | 18,863,536       | 1,639,980        | 20,503,516              | (11,109,442)                        | 998,172                        | (10,111,271)                      | -             | 7,754,094           | 2,638,152      | 10,392,245              |
| 9              | Roush                              | RLNG           | -             | -                | -                | -                       | 419,858,495                         | -                              | 419,858,495                       | -             | 419,858,495         | -              | 419,858,495             |
| 10             | Saba Power                         | RFO            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| 11             | Japan Power                        | RFO            | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| 12             | Uch                                | Gas            | 327,042,000   | 4,317,963,192    | 248,715,440      | 4,566,678,632           | (26,421)                            | (738,731)                      | (765,152)                         | -             | 4,317,936,771       | 247,976,709    | 4,565,913,480           |
| 13             | Altun                              | Gas            | -             | -                | -                | -                       | 31,901,470                          | -                              | 31,901,470                        | -             | 31,901,470          | -              | 31,901,470              |
| 14             | Liverty                            | Gas            | 85,986,000    | 2,266,756,552    | 90,122,765       | 2,346,879,317           | 9,659,460                           | -                              | 9,659,460                         | -             | 2,266,416,012       | 90,122,765     | 2,356,538,777           |
| 15             | Davis Energen                      | RLNG           | -             | -                | -                | -                       | -                                   | -                              | -                                 | -             | -                   | -              | -                       |
| 16             | Chashma Nuclear                    | Nucl.          | 207,800,000   | 421,496,966      | -                | 421,496,966             | -                                   | -                              | -                                 | -             | 421,496,966         | -              | 421,496,966             |
| 17             | Chashma Nuclear-II                 | Nucl.          | 217,909,000   | 584,519,102      | -                | 584,519,102             | -                                   | -                              | -                                 | -             | 584,519,102         | -              | 584,519,102             |
| 18             | Chashma Nuclear-III                | Nucl.          | 199,671,000   | 592,244,153      | -                | 592,244,153             | -                                   | -                              | -                                 | -             | 592,244,153         | -              | 592,244,153             |
| 19             | Chashma Nuclear-IV                 | Nucl.          | 186,791,000   | 403,730,067      | -                | 403,730,067             | -                                   | -                              | -                                 | -             | 403,730,067         | -              | 403,730,067             |
| 20             | Karachi Nuclear Power Plant-Unit-2 | Nucl.          | 709,521,000   | 1,255,986,016    | -                | 1,255,986,016           | -                                   | -                              | -                                 | -             | 1,255,986,016       | -              | 1,255,986,016           |

| S.No.     | Power Producers | Fuel | Energy kWh | Fuel Charges<br>Rs. | VO&M<br>Charges<br>Rs. | EPP Billing month<br>(Rs.) | Prev. Adjustment in<br>Fuel Cost<br>(Rs.) | Prev. Adjustment in<br>VO&M<br>(Rs.) | Prev. Adjustment in EPP Total<br>Rs. | Supp. Charges | Total Fuel Cost<br>Rs. | Total VO&M<br>Rs. | Total<br>Energy Cost<br>(Rs.) |
|-----------|-----------------|------|------------|---------------------|------------------------|----------------------------|-------------------------------------------|--------------------------------------|--------------------------------------|---------------|------------------------|-------------------|-------------------------------|
| A         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| B         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| C         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| D-E-G     |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| F         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| G-H-I     |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| J-K-L     |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| M         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| N         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| O         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| P         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| Q         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| R         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| S         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| T         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| U         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| V         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| W         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| X         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| Y         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| Z         |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| AZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| BZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| CZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| DZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ED        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ER        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ES        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ET        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| EZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| FZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| GZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| HZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ID        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| II        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| IZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| JZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| KZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| LZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ME        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ML        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| MZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ND        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| NZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ON        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| OZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| PZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| QZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| RZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ST        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| SZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| TZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| US        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| UZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| VZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| WZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| XZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| YZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZA        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZB        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZC        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZD        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZE        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZF        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZG        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZH        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZI        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZJ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZK        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZL        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZM        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZN        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZO        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZP        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZQ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZR        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZS        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZT        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZU        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZV        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZW        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZX        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZY        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| ZZ        |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| G-Total:  |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |
| Sub-Total |                 |      |            |                     |                        |                            |                                           |                                      |                                      |               |                        |                   |                               |



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| S No. | Power Producers      | Fuel | Energy kWh     | Fuel Charges Rs. | Volumetric Charges Rs. | EPP billing month (Rs.) | Prev. Adjustment in Fuel Cost (Rs.) | Prev. Adjustment in Volumetric (Rs.) | Cost-EEF      | Supp. Charges | Total Fuel Cost Rs. | Total Volum Rs. | Total Energy Cost (Rs.) |
|-------|----------------------|------|----------------|------------------|------------------------|-------------------------|-------------------------------------|--------------------------------------|---------------|---------------|---------------------|-----------------|-------------------------|
| 1     | Hydel                |      | 4,753,282.056  |                  | 622,433.418            | 622,433.418             |                                     |                                      | 294,609,431   |               |                     |                 | 294,609,431             |
| 2     | Coal-Local           |      | 1,331,684.960  | 15,535,616.682   | 1,110,361.323          | 15,535,616.682          | (208,433,980)                       | 294,609,431                          | (116,234,116) |               | 15,349,183,674      | 1,547,042,064   | 15,470,420,604          |
| 3     | Coal-Imported        |      | 1,379,484.560  | 14,660,291.603   | 397,373,529            | 14,402,743,133          | 972,000,753                         | 174,208,972                          | 967,084,289   |               | 14,977,352,658      | 1,289,769,895   | 15,398,833,898          |
| 4     | Gas                  |      |                |                  |                        |                         |                                     | (4,316,464)                          |               |               |                     | 392,174,965     | 15,399,827,422          |
| 5     | Gas                  |      | 97,401,752     | 2,751,047,536    | 171,446,550            | 2,822,496,076           |                                     | (8,944,979)                          | 233,311,723   |               | 2,993,344,229       | 162,483,571     | 3,155,607,800           |
| 6     | Gas                  |      | 940,843,040    | 12,700,108,840   | 893,589,361            | 13,593,698,202          | (94,574,498)                        | (131,487,399)                        | (288,971,889) |               | 12,865,534,332      | 702,091,962     | 13,397,626,394          |
| 7     | RLPD                 |      | 1,014,670,670  | 30,457,006,927   | 39,385,413,469         | 39,385,413,469          | (4,035,715)                         | (3,734,373)                          | (8,069,588)   |               | 35,349,698,551      | 897,968,946     | 36,247,667,497          |
| 8     | Nuclear              |      | 2,227,358,000  | 4,876,456,153    | 997,693,770            | 4,876,456,153           | (1,022,025)                         |                                      | (2,022,025)   |               | 4,874,258,773       | 4,874,258,773   | 4,874,258,773           |
| 9     | Import from Iran     |      | 341,648,864    | 294,485,282      |                        | 565,485,502             |                                     |                                      |               |               | 568,485,502         |                 | 568,485,502             |
| 10    | Solar                |      | 107,869,106    | 334,886,985      | 47,318,604             |                         |                                     |                                      |               |               |                     |                 |                         |
| 11    | Bagasse              |      | 34,062,297     | 89,279,585,496   | 4,150,318,483          | 387,205,589             |                                     | 5,732                                | 744,417,374   |               | 1,079,288,277       | 47,331,336      | 1,186,622,103           |
|       | Totals For The month |      | 12,892,030,970 | 12,892,030,970   | 12,892,030,970         | 12,892,030,970          | 324,706,804                         | 873,093,925                          | 1,814,326,898 |               | 90,264,232,849      | 5,039,035,755   | 95,303,328,604          |
|       | Prev. Adjustments :  |      | (6,082,292)    |                  |                        |                         |                                     |                                      |               |               |                     |                 |                         |
|       | Grand TOTAL :        |      | 12,885,948,678 | 12,885,948,678   | 12,885,948,678         | 12,885,948,678          |                                     |                                      |               |               |                     |                 |                         |

|                                     |                |                |                |
|-------------------------------------|----------------|----------------|----------------|
| Energy Cost (Rs.)                   | 90,264,232,849 | 5,039,035,755  | 95,303,328,604 |
| Cost not chargeable to DISCOs (Rs.) | 1,232,128,951  | -              | 1,232,128,951  |
| EPP (Chargeable) (Rs.)              | 88,032,103,898 | 5,039,035,755  | 94,071,199,653 |
| Energy Sold (kWh)                   | 12,217,306,835 | 12,217,306,835 | 12,217,306,835 |
| Avg. Rate (Rs./kWh)                 | 7.2873         | 0.4124         | 7.6998         |

|                                  |          |
|----------------------------------|----------|
| Reference Rate (Rs./kWh)         | 7.6554   |
| FCA Rate Current month (Rs./kWh) | (0.3681) |

CENTRAL POWER PURCHASING AGENCY (CPPA)

Detail Breakup of FCC Claimed

For the Month of September 2025

| S.No.        | Power Producer                                          | Fuel | Dep.<br>Capacity<br>(MW) | Energy KWh    | Fuel Cost<br>component as<br>determined by<br>Authority (Rs./kWh) | Fuel Cost as per<br>NEPRA Approved<br>Rate (Rs.) | Heat Degradation<br>Factor (Dh) Rs. | Load Correction Factor<br>(kL) Rs. | Any other Cost<br>as per PPA (Rs.) | Fuel Charges<br>Rs. |
|--------------|---------------------------------------------------------|------|--------------------------|---------------|-------------------------------------------------------------------|--------------------------------------------------|-------------------------------------|------------------------------------|------------------------------------|---------------------|
| A            |                                                         |      |                          |               | B                                                                 |                                                  |                                     |                                    |                                    |                     |
| 1            | Attock Gen Limited                                      | RFO  | 156                      | 4,415,598     | 40.1495                                                           | 177,284,042                                      | -                                   | 7,790,965                          | -                                  | 185,075,007         |
| 2            | Foundation Power Company Daharki Ltd.                   | Gas  | 171                      | 97,404,245    | 9.3584                                                            | 911,545,620                                      | 36,679,119                          | 53,694,360                         | -                                  | 1,001,919,099       |
| 3            | Orient Power Company (Private) Limited                  | RLNG | 213                      | 46,144,270    | 22.8533                                                           | 1,054,548,846                                    | 30,910,332                          | 49,391,580                         | -                                  | 1,134,850,757       |
| 4            | Saif Power Limited                                      | RLNG | 204                      | 6,440,652     | 22.8554                                                           | 147,203,678                                      | 4,801,894                           | 12,327,698                         | -                                  | 164,333,270         |
| 5            | Sapphire Electric Company Limited                       | RLNG | 203                      | 8,385,530     | 22.8533                                                           | 191,637,033                                      | 5,797,742                           | 15,425,168                         | -                                  | 212,859,943         |
| 6            | Halmore Power Generation Company Limited                | RLNG | 199                      | 6,320,376     | 22.8546                                                           | 144,449,665                                      | 3,481,237                           | 15,317,436                         | -                                  | 163,248,338         |
| 7            | Uch-II Power (Pvt.) Limited                             | Gas  | 381                      | 164,247,192   | 13.2638                                                           | 2,178,542,423                                    | 18,999,362                          | 78,891,750                         | -                                  | 2,276,433,536       |
| 8            | Quaid-e-Azam Thermal Power (Pvt) Limited                | RLNG | 1,180                    | 423,891,900   | 19.2095                                                           | 8,142,751,453                                    | 208,145,091                         | 639,741,843                        | -                                  | 8,990,638,387       |
| 9            | National Power Parks Management Company Private Limited | RLNG | 2,453                    | 1,114,715,755 | 18.8946                                                           | 21,062,107,600                                   | 530,887,586                         | 1,338,212,448                      | -                                  | 22,931,207,634      |
| 10           | Punjab Thermal Power Private Limited                    | RLNG | 1,320                    | 120,519,700   | 19.1229                                                           | 2,304,681,820                                    | 39,179,591                          | 323,341,687                        | -                                  | 2,667,203,099       |
| IPPs Total:- |                                                         |      | 6,537                    | 1,992,485,218 |                                                                   | 36,314,752,180                                   | 878,881,955                         | 2,534,134,935                      | -                                  | 39,727,769,069      |