# Appendix



TABLE V

Parameters of PVs

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **PV1** | **PV2** | **PV3** | **PV4** | **PV5** | **PV6** | **PV7** | **PV8** | **PV9** |
| **Capacity (kW)** | 60 | 70 | 80 | 60 | 70 | 60 | 70 | 70 | 60 |
| **Standard deviation of the forecast error distribution (σ)** | 2 | 2.4 | 2.5 | 3 | 3.2 | 3.6 | 4 | 4.5 | 5 |

TABLE VI

Parameters of SLs

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **SL1** | **SL2** | **SL3** | **SL4** | **SL5** | **SL6** | **SL7** | **SL8** | **SL9** | **SL10** | **SL11** |
| **Energy (kWh)** | 45 | 60 | 40 | 55 | 20 | 35 | 30 | 35 | 40 | 60 | 10 |
| **Power (kW)** | 9 | 12 | 8 | 11 | 4 | 7 | 6 | 7 | 8 | 12 | 2 |
| **Available**  **period (h-h)** | 6-10 | 6-11 | 12-17 | 6-10 | 10-17 | 10-17 | 6-12 | 13-17 | 6-10 | 10-16 | 10-17 |
| **Load significance parameter ()** | 5.2 | 6.7 | 4.7 | 6.2 | 2.7 | 4.2 | 3.7 | 4.2 | 4.7 | 6.7 | 1.7 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **SL12** | **SL13** | **SL14** | **SL15** | **SL16** | **SL17** | **SL18** | **SL19** | **SL20** | **SL21** | **SL22** |
| **Energy (kWh)** | 55 | 45 | 50 | 35 | 30 | 10 | 15 | 50 | 20 | 40 | 65 |
| **Power (kW)** | 11 | 9 | 10 | 7 | 6 | 2 | 3 | 10 | 4 | 8 | 13 |
| **Available**  **period (h-h)** | 12-17 | 8-14 | 6-10 | 6-11 | 11-17 | 10-14 | 6-10 | 13-17 | 6-11 | 10-17 | 13-17 |
| **Load significance parameter ()** | 6.7 | 5.2 | 5.7 | 4.2 | 3.7 | 1.7 | 2.2 | 5.7 | 2.7 | 4.7 | 7.2 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **SL23** | **SL24** | **SL25** | **SL26** | **SL27** | **SL28** | **SL29** | **SL30** | **SL31** | **SL32** | **SL33** |
| **Energy (kWh)** | 55 | 60 | 35 | 30 | 10 | 5 | 40 | 55 | 20 | 35 | 30 |
| **Power (kW)** | 11 | 12 | 7 | 6 | 2 | 1 | 8 | 11 | 4 | 7 | 6 |
| **Available**  **period (h-h)** | 13-17 | 6-11 | 13-17 | 13-17 | 11-16 | 7-12 | 10-16 | 11-15 | 11-17 | 11-16 | 6-12 |
| **Load significance parameter ()** | 6.2 | 6.7 | 4.2 | 3.7 | 1.7 | 1.2 | 4.7 | 6.2 | 2.7 | 4.2 | 3.7 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **SL34** | **SL35** | **SL36** | **SL37** | **SL38** | **SL39** | **SL40** | **SL41** | **SL42** | **SL43** | **SL44** |
| **Energy (kWh)** | 35 | 40 | 60 | 10 | 55 | 45 | 30 | 35 | 30 | 10 | 15 |
| **Power (kW)** | 7 | 8 | 12 | 2 | 11 | 9 | 6 | 7 | 6 | 2 | 3 |
| **Available**  **period (h-h)** | 13-17 | 6-10 | 6-11 | 12-17 | 12-17 | 8-14 | 7-11 | 7-11 | 11-16 | 10-13 | 6-11 |
| **Load significance parameter ()** | 4.2 | 4.7 | 6.7 | 1.7 | 6.7 | 5.2 | 3.7 | 4.2 | 3.7 | 1.7 | 2.2 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **SL45** | **SL46** | **SL47** | **SL48** | **SL49** | **SL50** | **SL51** | **SL52** |
| **Energy (kWh)** | 50 | 20 | 5 | 15 | 55 | 60 | 35 | 30 |
| **Power (kW)** | 10 | 4 | 1 | 3 | 11 | 12 | 7 | 6 |
| **Available**  **period (h-h)** | 6-10 | 7-11 | 10-17 | 7-12 | 12-17 | 13-17 | 12-17 | 13-17 |
| **Load significance parameter ()** | 5.7 | 2.7 | 1.2 | 2.2 | 6.2 | 6.7 | 4.2 | 3.7 |

TABLE VII

Parameters of EVs

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **EV1** | **EV2** | **EV3** | **EV4** | **EV5** | **EV6** | **EV7** | **EV8** | **EV9** | **EV10** | **EV11** |
| **Energy (kWh)** | 40 | 50 | 25 | 60 | 56 | 54 | 48 | 27 | 36 | 32 | 36 |
| **Min charging power** (kW) | 7 | 8 | 4 | 8 | 5 | 8 | 6 | 7 | 5 | 6 | 5 |
| **Max charging power** (kW) | 11 | 12 | 6 | 11 | 8 | 10 | 10 | 10 | 10 | 11 | 7 |
| **Available**  **period** (h-h) | 8-11 | 8-12 | 7-11 | 6-11 | 10-17 | 12-17 | 7-12 | 9-11 | 12-17 | 6-9 | 10-15 |
| **Load significance parameter ()** | 5.7 | 5.7 | 3.2 | 5.7 | 4.2 | 5.2 | 4.7 | 5.2 | 3.7 | 4.7 | 3.7 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **EV12** | **EV13** | **EV14** | **EV15** | **EV16** | **EV17** | **EV18** | **EV19** | **EV20** | **EV21** | **EV22** |
| **Energy (kWh)** | 25 | 50 | 40 | 49 | 70 | 60 | 52 | 56 | 50 | 16 | 78 |
| **Min charging power** (kW) | 5 | 7 | 7 | 6 | 8 | 10 | 12 | 7 | 8 | 2 | 12 |
| **Max charging power** (kW) | 6 | 11 | 9 | 7 | 13 | 15 | 15 | 10 | 11 | 6 | 15 |
| **Available**  **period** (h-h) | 9-13 | 8-12 | 9-13 | 11-17 | 6-12 | 9-13 | 11-14 | 11-17 | 13-17 | 10-13 | 9-14 |
| **Load significance parameter ()** | 3.2 | 5.7 | 4.7 | 4.2 | 5.7 | 6.7 | 7.2 | 4.7 | 5.7 | 2.7 | 7.2 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **EV23** | **EV24** | **EV25** | **EV26** | **EV27** | **EV28** | **EV29** | **EV30** | **EV31** | **EV32** | **EV33** |
| **Energy (kWh)** | 18 | 24 | 24 | 40 | 50 | 40 | 49 | 70 | 60 | 52 | 56 |
| **Min charging power** (kW) | 6 | 8 | 3 | 8 | 8 | 7 | 6 | 8 | 11 | 12 | 7 |
| **Max charging power** (kW) | 12 | 9 | 12 | 13 | 11 | 9 | 7 | 13 | 15 | 15 | 10 |
| **Available**  **period** (h-h) | 12-13 | 10-12 | 15-17 | 9-12 | 8-12 | 11-15 | 11-17 | 6-12 | 9-13 | 14-17 | 11-17 |
| **Load significance parameter ()** | 5.2 | 4.7 | 4.7 | 5.7 | 5.7 | 4.7 | 4.2 | 5.7 | 6.7 | 7.2 | 4.7 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **EV34** | **EV35** | **EV36** | **EV37** | **EV38** | **EV39** | **EV40** | **EV41** | **EV42** | **EV43** | **EV44** |
| **Energy (kWh)** | 50 | 16 | 78 | 18 | 24 | 24 | 40 | 40 | 50 | 25 | 60 |
| **Min charging power** (kW) | 8 | 2 | 12 | 6 | 8 | 3 | 8 | 8 | 2 | 4 | 7 |
| **Max charging power** (kW) | 11 | 6 | 15 | 12 | 9 | 12 | 12 | 11 | 12 | 7 | 11 |
| **Available**  **period** (h-h) | 13-17 | 10-13 | 9-14 | 12-13 | 10-12 | 15-17 | 9-12 | 8-11 | 8-12 | 7-11 | 6-11 |
| **Load significance parameter ()** | 5.7 | 2.7 | 7.2 | 5.2 | 4.7 | 4.7 | 5.7 | 5.7 | 5.7 | 3.2 | 5.7 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **EV45** | **EV46** | **EV47** | **EV48** | **EV49** | **EV50** | **EV51** | **EV52** |
| **Energy (kWh)** | 56 | 54 | 48 | 36 | 36 | 32 | 36 | 25 |
| **Min charging power** (kW) | 5 | 8 | 6 | 7 | 5 | 6 | 5 | 5 |
| **Max charging power** (kW) | 8 | 10 | 10 | 10 | 10 | 11 | 7 | 6 |
| **Available**  **period** (h-h) | 10-17 | 12-17 | 12-17 | 9-12 | 12-17 | 6-9 | 12-17 | 11-15 |
| **Load significance parameter ()** | 4.2 | 5.2 | 4.7 | 5.2 | 3.7 | 4.7 | 3.7 | 3.2 |