“Input – Facility Data L1-L30.xlsx”

Candidate Primary Facility (Warehouse) Data

|  |  |
| --- | --- |
| Column | Description |
| A | User specified vertex id |
| B, C | x,y coordinates |
| D-M | Overall inventory capacity of combined products for periods t1 to t10 |
| N-P | Initial open capacity level for products g0 to g2 |
| Q-S | Initial existing capacity level for products g0 to g2 |
| T-V | Unit transport cost from plant to warehouse for products g0, g1, g2 in period t1 |
| W-Y | Unit transport cost from plant to warehouse for products g0, g1, g2 in period t2 |
| Z-AB | Unit transport cost from plant to warehouse for products g0, g1, g2 in period t3 |
| AC-AE | Unit transport cost from plant to warehouse for products g0, g1, g2 in period t4 |
| AF-AH | Unit transport cost from plant to warehouse for products g0, g1, g2 in period t5 |
| AI-AK | Unit transport cost from plant to warehouse for products g0, g1, g2 in period t6 |
| AL-AN | Unit transport cost from plant to warehouse for products g0, g1, g2 in period t7 |
| AO-AQ | Unit transport cost from plant to warehouse for products g0, g1, g2 in period t8 |
| AR-AT | Unit transport cost from plant to warehouse for products g0, g1, g2 in period t9 |
| AU-AW | Unit transport cost from plant to warehouse for products g0, g1, g2 in period t10 |
| AX-AZ | Unit ordering cost for products g0, g1, g2 in period t1 |
| BA-BC | Unit ordering cost for products g0, g1, g2 in period t2 |
| BD-BF | Unit ordering cost for products g0, g1, g2 in period t3 |
| BG-BI | Unit ordering cost for products g0, g1, g2 in period t4 |
| BJ-BL | Unit ordering cost for products g0, g1, g2 in period t5 |
| BM-BO | Unit ordering cost for products g0, g1, g2 in period t6 |
| BP-BR | Unit ordering cost for products g0, g1, g2 in period t7 |
| BS-BU | Unit ordering cost for products g0, g1, g2 in period t8 |
| BV-BX | Unit ordering cost for products g0, g1, g2 in period t9 |
| BY-CA | Unit ordering cost for products g0, g1, g2 in period t10 |
| CB-CD | Unit holding cost for products g0, g1, g2 in period t1 |
| CE-CG | Unit holding cost for products g0, g1, g2 in period t2 |
| CH-CJ | Unit holding cost for products g0, g1, g2 in period t3 |
| CK-CM | Unit holding cost for products g0, g1, g2 in period t4 |
| CN-CP | Unit holding cost for products g0, g1, g2 in period t5 |
| CQ-CS | Unit holding cost for products g0, g1, g2 in period t6 |
| CT-CV | Unit holding cost for products g0, g1, g2 in period t7 |
| CW-CY | Unit holding cost for products g0, g1, g2 in period t8 |
| CZ-DB | Unit holding cost for products g0, g1, g2 in period t9 |
| DC-DE | Unit holding cost for products g0, g1, g2 in period t10 |
| DF-DH | Unit transportation cost for products g0, g1, g2 in period t1 |
| DI-DK | Unit transportation cost for products g0, g1, g2 in period t2 |
| DL-DN | Unit transportation cost for products g0, g1, g2 in period t3 |
| DO-DQ | Unit transportation cost for products g0, g1, g2 in period t4 |
| DR-DT | Unit transportation cost for products g0, g1, g2 in period t5 |
| DU-DW | Unit transportation cost for products g0, g1, g2 in period t6 |
| DX-DZ | Unit transportation cost for products g0, g1, g2 in period t7 |
| EA-EC | Unit transportation cost for products g0, g1, g2 in period t8 |
| ED-EF | Unit transportation cost for products g0, g1, g2 in period t9 |
| EG-EI | Unit transportation cost for products g0, g1, g2 in period t10 |
| EJ-EL | Lead time to fulfill an incoming order for products g0, g1, g2 in period t1 |
| EM-EO | Lead time to fulfill an incoming order for products g0, g1, g2 in period t2 |
| EP-ER | Lead time to fulfill an incoming order for products g0, g1, g2 in period t3 |
| ES-EU | Lead time to fulfill an incoming order for products g0, g1, g2 in period t4 |
| EV-EX | Lead time to fulfill an incoming order for products g0, g1, g2 in period t5 |
| EY-FA | Lead time to fulfill an incoming order for products g0, g1, g2 in period t6 |
| FB-FD | Lead time to fulfill an incoming order for products g0, g1, g2 in period t7 |
| FE-FG | Lead time to fulfill an incoming order for products g0, g1, g2 in period t8 |
| FH-FJ | Lead time to fulfill an incoming order for products g0, g1, g2 in period t9 |
| FK-FM | Lead time to fulfill an incoming order for products g0, g1, g2 in period t10 |
| FN-FR | Maximum order quantity with open capacity levels 1, 2, 3, 4, 5 for products g0 |
| FS-FW | Maximum order quantity with open capacity levels 1, 2, 3, 4, 5 for products g1 |
| FX-GB | Maximum order quantity with open capacity levels 1, 2, 3, 4, 5 for products g2 |
| GC-GG | Inventory capacity with open capacity levels 1, 2, 3, 4, 5 for products g0 |
| GH-GL | Inventory capacity with open capacity levels 1, 2, 3, 4, 5 for products g1 |
| GM-GQ | Inventory capacity with open capacity levels 1, 2, 3, 4, 5 for products g2 |
| GR-HF | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t1 |
| HG-HU | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t2 |
| HV-IJ | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t3 |
| IK-IY | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t4 |
| IZ-JN | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t5 |
| JO-KC | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t6 |
| KD-KR | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t7 |
| KS-LG | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t8 |
| LH-LV | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t9 |
| LW-MK | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t10 |
| ML-MZ | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t1 |
| NA-NO | Operating fixed cost with open capacity levels for products 1, 2, 3, 4, 5 g0, g1, g2 in period t2 |
| NP-OD | Operating fixed cost with open capacity levels for products 1, 2, 3, 4, 5 g0, g1, g2 in period t3 |
| OE-OS | Operating fixed cost with open capacity levels for products 1, 2, 3, 4, 5 g0, g1, g2 in period t4 |
| OT-PH | Operating fixed cost with open capacity levels for products 1, 2, 3, 4, 5 g0, g1, g2 in period t5 |
| PI-PW | Operating fixed cost with open capacity levels for products 1, 2, 3, 4, 5 g0, g1, g2 in period t6 |
| PX-QL | Operating fixed cost with open capacity levels for products 1, 2, 3, 4, 5 g0, g1, g2 in period t7 |
| QM-RA | Operating fixed cost with open capacity levels for products 1, 2, 3, 4, 5 g0, g1, g2 in period t8 |
| RB-RP | Operating fixed cost with open capacity levels for products 1, 2, 3, 4, 5 g0, g1, g2 in period t9 |
| RQ-SE | Operating fixed cost with open capacity levels for products 1, 2, 3, 4, 5 g0, g1, g2 in period t10 |
| SF-ST | Non-Operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t1 |
| SU-TI | Non-Operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t2 |
| TJ-TX | Non-Operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t3 |
| TY-UM | Non-Operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t4 |
| UN-VB | Non-Operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t5 |
| VC-VQ | Non-Operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t6 |
| VR-WF | Non-Operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t7 |
| WG-WU | Non-Operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t8 |
| WV-XJ | Non-Operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t9 |
| XK-XY | Non-Operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t10 |
| XZ-YN | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t1 |
| YO-ZC | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t2 |
| ZD-ZR | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t3 |
| ZS-AAG | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t4 |
| AAH-AAV | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t5 |
| AAW-ABK | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t6 |
| ABL-ABZ | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t7 |
| ACA-ACO | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t8 |
| ACP-ADD | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t9 |
| ADE-ADS | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t10 |
| ADT-AEH | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t1 |
| AEI-AEW | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t2 |
| AEX-AFL | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t3 |
| AFM-AGA | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t4 |
| AGB-AGP | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t5 |
| AGQ-AHE | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t6 |
| AHF-AHT | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t7 |
| AHU-AII | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t8 |
| AIJ-AIX | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t9 |
| AIY-AJM | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t10 |

Candidate Secondary Facility (Consolidation Hub) Data

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| --- | --- |
| Column | Description |
| A | User specified vertex id |
| B, C | x,y coordinates |
| D-M | Overall max served daily demand of combined products for periods t1 to t10 |
| N-P | Initial open capacity level for products g0 to g2 |
| Q-S | Initial existing capacity level for products g0 to g2 |
| T-X | Max served daily demand with open capacity levels 1, 2, 3, 4, 5 for products g0 |
| Y-AC | Max served daily demand with open capacity levels 1, 2, 3, 4, 5 for products g1 |
| AD-AH | Max served daily demand with open capacity levels 1, 2, 3, 4, 5 for products g2 |
| AI-AK | Unit transportation cost for products g0, g1, g2 in period t1 |
| AL-AN | Unit transportation cost for products g0, g1, g2 in period t2 |
| AO-AQ | Unit transportation cost for products g0, g1, g2 in period t3 |
| AR-AT | Unit transportation cost for products g0, g1, g2 in period t4 |
| AU-AW | Unit transportation cost for products g0, g1, g2 in period t5 |
| AX-AZ | Unit transportation cost for products g0, g1, g2 in period t6 |
| BA-BC | Unit transportation cost for products g0, g1, g2 in period t7 |
| BD-BF | Unit transportation cost for products g0, g1, g2 in period t8 |
| BG-BI | Unit transportation cost for products g0, g1, g2 in period t9 |
| BJ-BL | Unit transportation cost for products g0, g1, g2 in period t10 |
| BM-CA | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t1 |
| CB-CP | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t2 |
| CQ-DE | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t3 |
| DF-DT | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t4 |
| DU-EI | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t5 |
| EJ-EX | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t6 |
| EY-FM | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t7 |
| FN-GB | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t8 |
| GC-GQ | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t9 |
| GR-HF | Cost for constructing capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t10 |
| HG-HU | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t1 |
| HV-IJ | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t2 |
| IK-IY | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t3 |
| IZ-JN | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t4 |
| JO-KC | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t5 |
| KD-KR | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t6 |
| KS-LG | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t7 |
| LH-LV | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t8 |
| LW-MK | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t9 |
| ML-MZ | Operating fixed cost with open capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t10 |
| NA-NO | Non-operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t1 |
| NP-OD | Non-operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t2 |
| OE-OS | Non-operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t3 |
| OT-PH | Non-operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t4 |
| PI-PW | Non-operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t5 |
| PX-QL | Non-operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t6 |
| QM-RA | Non-operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t7 |
| RB-RP | Non-operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t8 |
| RQ-SE | Non-operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t9 |
| SF-ST | Non-operating Fixed cost for maintaining close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t10 |
| SU-TI | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t1 |
| TJ-TX | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t2 |
| TY-UM | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t3 |
| UN-VB | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t4 |
| VC-VQ | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t5 |
| VR-WF | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t6 |
| WG-WU | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t7 |
| WV-XJ | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t8 |
| XK-XY | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t9 |
| XZ-YN | Cost to reopen capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t10 |
| YO-ZC | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t1 |
| ZD-ZR | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t2 |
| ZS-AAG | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t3 |
| AAH-AAV | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t4 |
| AAW-ABK | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t5 |
| ABL-ABZ | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t6 |
| ACA-ACO | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t7 |
| ACP-ADD | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t8 |
| ADE-ADS | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t9 |
| ADT-AEH | Cost to temporarily close capacity levels 1, 2, 3, 4, 5 for products g0, g1, g2 in period t10 |