Bipolar pentagonal neutrosophic fuzzy input values for model parameters

Table 1: BPNFS input for time and emission constraints.

$\widetilde{mSegT}$	$\widetilde{MSegT}$
$<(0.0001, 0.0002, 0.0003, 0.0004, 0.0005; 0.3),$ $(0.001, 0.002, 0.003, 0.004, 0.005; 0.1),$ $(0.0001, 0.0002, 0.0003, 0.0004, 0.0005; 0.2),$ $(0.001, 0.002, 0.003, 0.004, 0.005; -0.5),$ $(0.0001, 0.0002, 0.0003, 0.0004, 0.0005; -0.3),$ $(0.0001, 0.0002, 0.0003, 0.0004, 0.0005; -0.2) >$	$<(0.004, 0.006, 0.008, 0.01, 0.012; 0.5),$ $(0.005, 0.006, 0.007, 0.008, 0.009; 0.3),$ $(0.002, 0.003, 0.004, 0.005, 0.006; 0.2),$ $(0.008, 0.01, 0.012, 0.014, 0.016; -0.5),$ $(0.001, 0.002, 0.003, 0.004, 0.005; -0.4),$ $(0.004, 0.005, 0.006, 0.007, 0.008; -0.1) >$
$\widetilde{mExT}$	$\widetilde{MExT}$
$<(0.2, 0.3, 0.4, 0.5, 0.6; 0.7), (0.1, 0.11, 0.12, 0.13, 0.14; 0.4),$ $(0.3, 0.4, 0.5, 0.6, 0.7; 0.3), (0.08, 0.1, 0.12, 0.14, 0.16; -0.6),$ $(0.11, 0.13, 0.15, 0.17, 0.19; -0.4), (0.2, 0.4, 0.6, 0.8, 1; -0.1) >$	$<(1, 1.1, 1.2, 1.3, 1.4; 0.5), (0.5, 0.7, 0.9, 1.1, 1.3; 0.3),$ $(0.4, 0.6, 0.8, 1, 1.2; 0.2), (0.7, 0.8, 0.9, 1, 1.1; -0.5),$ $(1, 1.2, 1.4, 1.6, 1.8; -0.4), (0.3, 0.5, 0.7, 0.9, 1.1; -0.1) >$
$\widetilde{mReT}$	$\widetilde{MReT}$
$<(0.1, 0.2, 0.3, 0.4, 0.5; 0.3), (0.07, 0.09, 0.11, 0.13, 0.15; 0.1),$ $(0.2, 0.3, 0.4, 0.5, 0.6; 0.2), (0.06, 0.08, 0.1, 0.12, 0.14; -0.5),$ $(0.1, 0.3, 0.5, 0.7, 0.9; -0.3), (0.2, 0.3, 0.4, 0.5, 0.6; -0.2) >$	$<(1, 1.1, 1.2, 1.3, 1.4; 0.8), (0.5, 0.7, 0.9, 1.1, 1.3; 0.4),$ $(0.4, 0.6, 0.8, 1, 1.2; 0.2), (0.7, 0.8, 0.9, 1, 1.1; -0.6),$ $(1, 1.2, 1.4, 1.6, 1.8; -0.5), (0.3, 0.5, 0.7, 0.9, 1.1; -0.1) >$
$\widetilde{CCE}$	
$<(441, 442, 443, 444, 445; 0.6), (345, 346, 347, 348, 349; 0.4),$ $(243, 244, 245, 246, 247; 0.2), (257, 258, 259, 260, 261; -0.8),$ $(321, 322, 323, 324, 325; -0.5), (401, 411, 421, 431, 441; -0.2) >$	

Table 2: BPNFS input for supply, demand, and conveyance constraints.

$\widetilde{CenC}_i$		
$i = 1$	$i = 2$	$i = 3$
$<(100, 101, 102, 103, 104; 0.6), (190, 192, 194, 196, 198; 0.3),$ $(115, 116, 117, 118, 119; 0.2), (100, 102, 104, 106, 108; -0.5),$ $(120, 122, 124, 126, 128; -0.2), (178, 179, 180, 181, 182; -0.5)>$	$<(100, 101, 102, 103, 104; 0.7), (110, 111, 112, 113, 114; 0.4),$ $(109, 110, 111, 112, 113; 0.1), (102, 104, 106, 108, 110; -0.3),$ $(105, 106, 107, 108, 109; -0.7), (101, 102, 103, 104, 105; -0.8)>$	$<(120, 121, 122, 123, 124; 0.9), (102, 103, 104, 105, 106; 0.5),$ $(101, 102, 103, 104, 105; 0.3), (110, 111, 112, 113, 114; -0.2),$ $(98, 100, 102, 104, 106; -0.7), (90, 91, 92, 93, 94; -0.4)>$
$\widetilde{ReFC}_j$		
$j = 1$	$j = 2$	$j = 3$
$<(30, 40, 50, 60, 70; 0.2), (45, 55, 65, 75, 85; 0.5),$ $(100, 102, 104, 106, 108; 0.3), (120, 125, 130, 135, 140; -0.4),$ $(90, 110, 130, 150, 170; -0.7), (65, 75, 85, 95, 105; -0.6)>$	$<(35, 37, 39, 41, 43; 0.4), (44, 46, 48, 50, 52; 0.6),$ $(22, 24, 26, 28, 30; 0.3), (44, 45, 46, 47, 48; -0.1),$ $(41, 42, 43, 44, 45; -0.3), (11, 14, 17, 20, 23; -0.8)>$	$<(65, 66, 67, 68, 69; 0.9), (78, 80, 82, 84, 86; 0.5),$ $(67, 68, 69, 70, 71; 0.3), (78, 80, 82, 84, 86; -0.2),$ $(88, 89, 90, 91, 92; -0.7), (77, 78, 79, 80, 81; -0.4)>$
$j = 4$	$j = 5$	
$<(67, 68, 69, 70, 71; 0.3), (56, 57, 58, 59, 60; 0.4),$ $(34, 36, 38, 40, 42; 0.6), (44, 45, 46, 47, 48; -0.6),$ $(35, 37, 39, 41, 43; -0.7), (57, 58, 59, 60, 61; -0.8)>$	$<(56, 58, 60, 62, 64; 0.5), (62, 63, 64, 65, 66; 0.4),$ $(45, 47, 49, 51, 53; 0.3), (47, 48, 49, 50, 51; -0.7),$ $70, 72, 74, 76, 78; -0.5), (36, 37, 38, 39, 40; -0.5)>$	
$\widetilde{VcrC}_k$		
$k = 1$	$k = 2$	$k = 3$
$<(100, 110, 120, 130, 140; 0.4), (226, 228, 230, 232, 234; 0.2),$ $(170, 171, 172, 173, 174; 0.1), (130, 140, 150, 160, 170; -0.5),$ $(136, 138, 140, 142, 144; -0.3), (202, 204, 206, 208, 210; -0.4)>$	$<(110, 111, 112, 113, 114; 0.5), (150, 152, 154, 156, 158; 0.3),$ $(148, 149, 150, 151, 152; 0.1), (166, 167, 168, 169, 170; -0.5),$ $(146, 147, 148, 149, 150; -0.9), (121, 122, 123, 124, 125; -0.7)>$	$<(179, 180, 181, 182, 183; 0.4), (194, 196, 198, 200, 202; 0.6),$ $(230, 231, 232, 233, 234; 0.7), (220, 222, 224, 226, 228; -0.5),$ $(188, 189, 190, 191, 192; -0.7), (190, 191, 192, 193, 194; -0.6)>$
$\widetilde{ExM}_j$		
$j = 1$	$j = 2$	$j = 3$
$<(32, 33, 34, 35, 36; 0.6), (44, 45, 46, 47, 48; 0.4),$ $(25, 26, 27, 28, 29; 0.1), (37, 38, 39, 40, 41; -0.8),$ $(22, 23, 24, 25, 26; -0.5), (31, 32, 33, 34, 35; -0.3)>$	$<(31, 32, 33, 34, 35; 0.6), (29, 31, 33, 35, 37; 0.4),$ $(41, 42, 43, 44, 45; 0.2), (21, 22, 23, 24, 25; -0.6),$ $(33, 35, 37, 39, 41; -0.3), (23, 24, 25, 26, 27; -0.2)>$	$<(32, 33, 34, 35, 36; 0.6), (31, 34, 37, 40, 43; 0.4),$ $(37, 39, 41, 43, 45; 0.5), (41, 42, 43, 44, 45; -0.7),$ $(35, 36, 37, 38, 39; -0.5), (22, 23, 24, 25, 26; -0.4)>$
$j = 4$	$j = 5$	
$<(27, 29, 31, 33, 35; 0.2), (23, 24, 25, 26, 27; 0.5),$ $(34, 36, 38, 40, 42; 0.6), (39, 41, 43, 45, 47; -0.5),$ $(17, 19, 21, 23, 25; -0.7), (26, 27, 28, 29, 30; -0.8)>$	$<(21, 22, 23, 24, 25; 0.6), (14, 16, 18, 20, 22; 0.3),$ $(31, 32, 33, 34, 35; 0.1), (25, 27, 29, 31, 33; -0.6),$ $(34, 35, 36, 37, 38; -0.3), (18, 20, 22, 24, 26; -0.4)>$	
$\widetilde{DemM}_l$		
$l = 1$	$l = 2$	
$<(67, 68, 69, 70, 71; 0.5), (114, 116, 118, 120, 122; 0.3),$ $(96, 97, 98, 99, 100; 0.2), (86, 87, 88, 89, 90; -0.6),$ $(123, 124, 125, 126, 127; -0.4), (111, 112, 113, 114, 115; -0.2)>$	$<(121, 122, 123, 124, 125; 0.2), (140, 142, 144, 146, 148; 0.4),$ $(118, 119, 120, 121, 122; 0.3), (123, 124, 125, 126, 127; -0.7),$ $(92, 94, 96, 98, 100; -0.4), (101, 102, 103, 104, 105; -0.3)>$	
$\widetilde{VrmM}_{k'}$		
$k' = 1$	$k' = 2$	$k' = 3$
$<(56, 58, 60, 62, 64; 0.5), (98, 99, 100, 101, 102; 0.3),$ $(78, 79, 80, 81, 82; 0.2), (68, 70, 72, 74, 76; -0.5),$ $(85, 86, 87, 88, 89; -0.4), (92, 93, 94, 95, 96; -0.3)>$	$<(121, 122, 123, 124, 125; 0.5), (92, 93, 94, 95, 96; 0.3),$ $(110, 111, 112, 113, 114; 0.1), (84, 86, 88, 90, 92; -0.5),$ $(125, 126, 127, 128, 129; -0.9), (98, 99, 100, 101, 102; -0.7)>$	$<(124, 125, 126, 127, 128; 0.6), (113, 115, 117, 119, 121; 0.4),$ $(109, 110, 111, 112, 113; 0.2), (134, 135, 136, 137, 138; -0.6),$ $(119, 120, 121, 122, 123; -0.5), (104, 105, 106, 107, 108; -0.1)>$
$\widetilde{ReP}_j$		
$j = 1$	$j = 2$	$j = 3$
$<(43, 44, 45, 46, 47; 0.6), (54, 55, 56, 57, 58; 0.4),$ $(37, 39, 41, 43, 45; 0.1), (34, 36, 38, 40, 42; -0.8),$ $(52, 53, 54, 55, 56; -0.5), (46, 48, 50, 52, 54; -0.3)>$	$<(55, 56, 57, 58, 59; 0.5), (49, 50, 51, 52, 53; 0.7),$ $(62, 63, 64, 65, 66; 0.8), (67, 68, 69, 70, 71; -0.4),$ $(71, 73, 75, 77, 79; -0.7), (59, 61, 63, 65, 67; -0.6)>$	$<(46, 47, 48, 49, 50; 0.7), (32, 33, 34, 35, 36; 0.5),$ $(55, 57, 59, 61, 63; 0.3), (42, 44, 46, 48, 50; -0.6),$ $(52, 53, 54, 55, 56; -0.2), (34, 35, 36, 37, 38; -0.3)>$
$j = 4$	$j = 5$	
$<(51, 52, 53, 54, 55; 0.6), (45, 46, 47, 48, 49; 0.3),$ $(71, 72, 73, 74, 75; 0.4), (62, 63, 64, 65, 66; -0.5),$ $(42, 44, 46, 48, 50; -0.6), (35, 37, 39, 41, 43; -0.6)>$	$<(33, 35, 37, 39, 41; 0.7), (24, 25, 26, 27, 28; 0.6),$ $(46, 47, 48, 49, 50; 0.4), (54, 56, 58, 60, 62; -0.6),$ $(51, 52, 53, 54, 55; -0.5), (23, 25, 27, 29, 31; -0.3)>$	
$\widetilde{DemP}_m$		
$m = 1$	$m = 2$	$m = 3$
$<(64, 65, 66, 67, 68; 0.6), (72, 73, 74, 75, 76; 0.4),$ $(46, 48, 50, 52, 54; 0.3), (53, 55, 57, 59, 61; -0.7),$ $(48, 49, 50, 51, 52; -0.3), (67, 68, 69, 70, 71; -0.2)>$	$<(87, 88, 89, 90, 91; 0.2), (78, 79, 80, 81, 82; 0.4),$ $(56, 58, 60, 62, 64; 0.3), (63, 64, 65, 66, 67; -0.6),$ $(71, 72, 73, 74, 75; -0.3), (47, 49, 51, 53, 55; -0.1)>$	$<(96, 98, 100, 102, 104; 0.4), (125, 127, 129, 131, 133; 0.5),$ $(99, 100, 101, 102, 103; 0.7), (103, 104, 105, 106, 107; -0.5),$ $(87, 88, 89, 90, 91; -0.2), (110, 111, 112, 113, 114; -0.3)>$
$\widetilde{VrmP}_{k''}$		
$k'' = 1$	$k'' = 2$	$k'' = 3$
$<(77, 79, 81, 83, 85; 0.5), (115, 116, 117, 118, 119; 0.3),$ $(97, 98, 99, 100, 101; 0.2), (134, 135, 136, 137, 138; -0.5),$ $(102, 104, 106, 108, 110; -0.4), (78, 79, 80, 81, 82; -0.3)>$	$<(136, 137, 138, 139, 140; 0.6), (98, 99, 100, 101, 102; 0.4),$ $(151, 152, 153, 154, 155; 0.2), (99, 100, 101, 102, 103; -0.7),$ $(122, 124, 126, 128, 130; -0.3), (104, 105, 106, 107, 108; -0.1)>$	$<(118, 119, 120, 121, 122; 0.4), (122, 123, 124, 125, 126; 0.6),$ $(101, 102, 103, 104, 105; 0.7), (95, 97, 99, 101, 103; -0.5),$ $(113, 114, 115, 116, 117; -0.7), (102, 103, 104, 105, 106; -0.6)>$

Table 3: BPNFS input for $\widetilde{MtnC}_i$ at the i^{th} collection center.

$i=1$	$i=2$	$i=3$
$<(4,5,6,7,8;0.7),(6,7,8,9,10;0.4),$ $(1,3,5,7,9;0.6),(5,6,7,8,9;-0.6),$ $(2,4,6,8,10;-0.7),(1,2,3,4,5;-0.4)>$	$<(5,6,7,8,9;0.5),(6,8,10,12,14;0.2),$ $(2,3,4,5,6;0.4),(8,9,10,11,12;-0.4),$ $(5,6,7,8,9;-0.3),(4,5,6,7,8;-0.3)>$	$<(2,4,6,8,10;0.2),(3,4,5,6,7;0.5),$ $(6,7,8,9,10;0.5),(7,8,9,10,11;-0.6),$ $(4,6,8,10,12;-0.3),(1,2,3,4,5;-0.5)>$

Table 4: BPNFS input for $\widetilde{ColC}_i$ at the i^{th} collection center.

$i=1$	$i=2$	$i=3$
$<(1,2,3,4,5;0.6),(1.5,2,2.5,3,2.5;0.4),$ $(3,4,5,6,7;0.5),(1,2,3,4,5;-0.7)$ $(4,5,6,7,8;-0.3),(2,4,6,8,10;-0.4)>$	$<(3,4,5,6,7;0.9),(1,3,5,7,9;0.3),$ $(4,4.5,5,5.5,6;0.2),(5,5.5,6,6.5,7;-0.2),$ $(3,3.5,4,4.5,5;-0.5),(4,5,6,7,8;-0.8)>$	$<(2,3,4,5,6;0.4),(1,2,3,4,5;0.3),$ $(4,5,6,7,8;0.7),(3,4,5,6,7;-0.2),$ $(4,5,6,7,8;-0.8),(1,2,3,4,5;-0.3)>$

Table 5: BPNFS input for $\widetilde{SegC}_j$ at the j^{th} extraction and recycling center.

$j=1$	$j=2$	$j=3$
$<(0.1,0.2,0.3,0.4,0.5;0.2),(0.5,1,1.5,2,2.5;0.5),$ $(0.25,0.35,0.45,0.55,0.65;0.1),(1.5,1.6,1.7,1.8,1.9;-0.3),$ $(1,1.2,1.4,1.6,1.8;-0.4),(0.5,0.6,0.7,0.8,0.9;-0.8)>$	$<(1.2,1.3,1.4,1.5,1.6;0.2),(1,2,3,4,5;0.6),$ $(1.5,1.7,1.9,2.1,2.3;0.7),(0.5,0.6,0.7,0.8,0.9;-0.4),$ $(2,2.1,2.2,2.3,2.4;-0.5),(0.1,0.2,0.3,0.4,0.5;-0.6)>$	$<(0.5,0.6,0.7,0.8,0.9;0.8),(1,1.1,1.2,1.3,1.4;0.5),$ $(1.8,1.9,2,2.1,2.2;0.2),(2,2.2,2.4,2.6,2.8;-0.3),$ $(0.2,0.3,0.4,0.5,0.6;-0.6),(1.1,1.3,1.5,1.7,1.9;-0.4)>$
$j=4$	$j=5$	
$<(1,1.3,1.5,1.7,1.9;0.4),(0.2,0.3,0.4,0.5,0.6;0.6),$ $(1.8,2,2.2,2.4,2.6;0.8),(1.5,1.6,1.7,1.8,1.9;-0.3),$ $(0.4,0.5,0.6,0.7,0.9;-0.5),(1.2,1.3,1.4,1.5,1.6;-0.6)>$	$(1.2,1.3,1.4,1.5,1.6;0.5),(2.3,2.4,2.5,2.6,2.7;0.3),$ $(0.2,0.3,0.4,0.5,0.6;0.6),(2.4,2.5,2.6,2.7,2.8;-0.3),$ $(1.9,2,2.1,2.2,2.3;-0.5),(1.5,1.6,1.7,1.8,1.9;-0.7)>$	

Table 6: BPNFS input for $\widetilde{ExC}_j$ at the j^{th} extraction and recycling center.

$j=1$	$j=2$	$j=3$
$<(7,8,9,10,11;0.6),(2,3,4,5,6;0.4),$ $(8.2,8.4,8.6,8.8,9;0.7),(4,4.5,5,5.5,6;-0.3),$ $(7,8,9,10,11;-0.4),(6,6.5,7,7.5,8;-0.3)>$	$<(11,11.5,12,12.5,13;0.6),(9,9.2,9.4,9.6,9.8;0.5),$ $(9,10,11,12,13;0.8),(14.5,14.6,14.7,14.8,14.9;-0.5),$ $(6,6.5,7,7.5,8;-0.7),(10,11,12,13,14;-0.8)>$	$<(9,10,11,12,13;0.5),(10.5,11,11.5,12,12.5;0.6),$ $(12,12.2,12.4,12.6,12.8;0.8),(13,14,15,16,17;-0.6),$ $(15.2,15.4,15.6,15.8,16;-0.3),(4,5,6,7,8;-0.4)>$
$j=4$	$j=5$	
$<(11,11.3,11.5,11.7,11.9;0.5),(7,8,9,10,11;0.3),$ $(8,9,10,11,12;0.4),(9,9.2,9.4,9.6,9.8;-0.7),$ $(2,3,4,5,6;-0.3),(1.5,1.6,1.7,1.8,1.9;-0.5)>$	$<(4,5,6,7,8;0.6),(15,16,17,18,19;0.5),$ $(2,3,4,5,6;0.7),(3.5,4,4.5,5,5.5;-0.5),$ $(10,11,12,13,14;-0.3),(6,7,8,9,10;-0.4)>$	

Table 7: BPNFS input for $\widetilde{ReC}_j$ at the j^{th} extraction and recycling center.

$j=1$	$j=2$	$j=3$
$<(5,6,7,8,9;0.1),(2,3,4,5,6;0.7),$ $(1.1,1.2,1.3,1.4,1.5;0.4),(0.5,0.6,0.7,0.8,0.9;-0.6),$ $(3,3.5,4,4.5,5;-0.8),(4,5,6,7,8;-0.3)>$	$<(3,4,5,6,7;0.9),(1,2,3,4,5;0.4),$ $(5,5.1,5.2,5.3,5.4;0.6),(3,3.2,3.4,3.6,3.8;-0.5),$ $(2,3,4,5,6;-0.5),(4,5,6,7,8;-0.7)>$	$<(4,5,6,7,8;0.6),(1,2,3,4,5;0.2),$ $(3,4,5,6,7;0.6),(1.5,1.6,1.7,1.8,1.9;-0.3),$ $(4,4.1,4.2,4.3,4.4;-0.5),(0.1,0.2,0.3,0.4,0.5;-0.7)>$
$j=4$	$j=5$	
$<(4.1,4.2,4.3,4.4,4.5;0.7),(1.5,1.6,1.7,1.8,1.9;0.4),$ $(6,6.1,6.2,6.3,6.4;0.3),(3,3.2,3.4,3.6,3.8;-0.5),$ $(1.5,1.6,1.7,1.8,1.9;-0.6),(2,2.1,2.3,2.4,2.5;-0.4)>$	$<(1,2,3,4,5;0.5),(1.5,1.6,1.7,1.8,1.9;0.4),$ $(3,3.5,4,4.5,5;0.6),(4,5,6,7,8;-0.3),$ $(3,4,5,6,7;-0.7),(6,7,8,9,10;-0.4)>$	

Table 8: BPNFS input for $\widetilde{TcrC}_{ijk}$ from the i^{th} collection center to the j^{th} extraction and recycling center via k^{th} conveyance.

i	$k=1$	$k=2$	$k=3$	j
1	$<(2,3,4,5,6;0.6),(5,6,7,8,9;0.7),$ $(9,10,11,12,13;0.2),(4,5,6,7,8;-0.5),$ $(5.5,6.5,7.5,8.5,9.5;-0.4),(6,7,8,9,10;-0.6)>$	$<(6,7,8,9,10;0.7),(8,9,10,11,12;0.5),$ $(4,4.5,5,5.5,6;0.3),(9,10,11,12,13;-0.6),$ $(8,8.5,9,9.5,10;-0.8),(7,8,9,10,11;-0.2)>$	$<(10,11,12,13,14;0.5),(9,9.5,10,10.5,11;0.6),$ $(5,6,7,8,9;0.3),(6,7,8,9,10;-0.3),$ $(10,10.5,11,11.5,12;-0.7),(6,7,8,9,10;-0.5)>$	1
	$<(5,6,7,8,9;0.5),(4,6,8,10,12;0.7),$ $(9,10,11,12,13;0.3),(8,10,12,14,16;-0.6),$ $(7,8,9,10,11;-0.7),(10,11,12,13,14;-0.3)>$	$<(12,12.1,12.2,12.3,12.4;0.5),(4,5,6,7,8;0.6),$ $(6,6.5,7,7.5,8;0.8),(6,7,8,9,10;-0.4),$ $(5,6,7,8,9;-0.6),(11,11.5,12,12.5,13;-0.5)>$	$<(10,11,12,13,14;0.4),(8,9,10,11,12;0.3),$ $(3,4,5,6,7;0.8),(5,6,7,8,9;-0.6),$ $(9,10,11,12,13;-0.3),(10,10.5,11,11.5,12;-0.8)>$	2
	$<(7,8,9,10,11;0.2),(8.5,8.6,8.7,8.8,8.9;0.6),$ $(10,10.5,11,11.5,12;0.5),(10,12,14,16,18;-0.7),$ $(4,5,6,7,8;-0.4),(9,11,13,15,17;-0.1)>$	$<(12,12.5,13,13.5,14;0.6),(5,6,7,8,9;0.3),$ $(4,5,6,7,8;0.4),(5,5.5,6,6.5,7;-0.5),$ $(6,7,8,9,10;-0.3),(12.6,12.7,12.8,12.9,13;-0.8)>$	$<(5,6,7,8,9;0.6),(12,12.5,13,13.5,14;0.4),$ $(9,10,11,12,13;0.6),(4,5,6,7,8;-0.3),$ $(7,8,9,10,11;-0.7),(12,12.1,12.2,12.3,12.4;-0.6)>$	3
	$<(7,8,9,10,11;0.8),(3,4,5,6,7;0.4),$ $(10,10.5,11,11.5,12;0.6),(6,7,8,9,10;-0.5),$ $(12,12.2,12.4,12.6,12.8;-0.4),(8,9,10,11,12;-0.4)>$	$<(10,11,12,13,14;0.6),(5,6,7,8,9;0.4),$ $(7,7.2,7.4,7.6,7.8;0.2),(12,12.3,12.6,12.9,13.2;-0.3),$ $(7,8,9,10,11;-0.5),(10,11,12,13,14;-0.7)>$	$<(6,7,8,9,10;0.7),(4,6,8,10,12;0.5),$ $(1,2,3,4,5;0.2),(11.4,11.6,11.8,12,12.2;-0.6),$ $(3,3.5,4,4.5,5;-0.1),(4,5,6,7,8;-0.4)>$	4
	$<(4,6,8,10,12;0.4),(7,8,9,10,11;0.8),$ $(10,10.5,11,11.5,12;0.6),(7,9,11,13,15;-0.3),$ $(6,7,8,9,10;-0.3),(12.5,13,13.5,14,14.5;-0.5)>$	$<(10,10.5,11,11.5,12;0.3),(6,7,8,9,10;0.5),$ $(4,5,6,7,8;0.6),(12.1,12.3,12.5,12.7,12.9;-0.3),$ $(5,6,7,8,9;-0.6),(8,9,10,11,12;-0.7)>$	$<(7,8,9,10,11;0.6),(3,4,5,6,7;0.2),$ $(5,5.5,6,6.5,7,0.4),(5,6,7,8,9;-0.8),$ $(3,5,7,9,11;-0.3),(11,11.1,11.2,11.3,11.4;-0.5)>$	5
2	$<(10,11,12,13,14;0.5),(7,8,9,10,11;0.2),$ $(10,10.2,10.4,10.6,10.8;0.4),(6,7,8,9,10;-0.6),$ $(5.5,6,6.5,7,7.5;-0.3),(7,7.2,7.4,7.6,7.8;-0.2)>$	$<(9,10,11,12,13;0.3),(10,10.5,11,11.5,12;0.6),$ $(5,6,7,8,9;0.7),(12,12.4,12.8,13.2,13.6;-0.2),$ $(9,10,11,12,13;-0.4),(9,9.5,10,10.5,11;-0.6)>$	$<(6,8,9,10,11;0.6),(3,4,5,6,7;0.4),$ $(5.5,6.5,7.5,8.5,9.5;0.1),(4,5,6,7,8;-0.9),$ $(6,7,8,9,10;-0.4),(4.5,5,5.5,6,6.5;-0.3)>$	1
	$<(7,8,9,10,11;0.6),(5,7,9,11,13,0.4),$ $(10,10.5,11,11.5,12;0.5),(4,5,6,7,8;-0.3),$ $(7.5,8.5,9.5,10.5,11.5;-0.4),(8,8.5,9,9.5,10;-0.5)>$	$<(7,8,9,10,11;0.6),(4,4.5,5,5.5,6;0.4),$ $(5,6,7,8,9;0.2),(6,6.5,7,7.5,8;-0.7),$ $(7,7.5,8,8.5,9;-0.3),(10,11,12,13,14;-0.5)>$	$<(8,9,10,11,12;0.5),(6.5,7,7.5,8,8.5;0.6),$ $(6,7,8,9,10;0.7),(7,8,9,10,11;-0.3),$ $(10.5,11,11.5,12,12.5;-0.4),(12.2,12.3,12.4,12.5,12.6;-0.7)>$	2
	$<(8,9,10,11,12;0.5),(10,11,12,13,14;0.3),$ $(7,7.5,8,8.5,9;0.1),(9,10,11,12,13;-0.5),$ $(12,12.5,13,13.5,14;-0.4),(9,10,11,12,13;-0.3)>$	$<(7,8,9,10,11;0.5),(8,9,10,11,12;0.4),$ $(3,4,5,6,7;0.1),(6,6.4,6.8,7.2,7.6;-0.8),$ $(5,6,7,8,9;-0.3),(11,12,13,14,15;-0.4)>$	$<(7,8,9,10,11;0.8),(3,4,5,6,7,0.3),$ $(10.1,10.2,10.3,10.4,10.5;0.5),(5,6,7,8,9;-0.4),$ $(2.5,3.5,4.5,5.5,6.5;-0.3),(3,4,5,6,7;-0.4)>$	3
	$<(5,6,7,8,9;0.6),(8,9,10,11,12;0.7),$ $(9,9.5,10,10.5,11;0.3),(7,8,9,10,11;-0.3),$ $(8,9,10,11,12;-0.6),(9.5,10,10.5,11,11.5;-0.1)>$	$<(8,10,12,14,16;0.5),(3,4,5,6,7;0.1),$ $(6.8,6.9,7,7.1,7.2;0.3),(5,6,7,8,9;-0.6),$ $(6,7,8,9,10;-0.7),(11.5,12,12.5,13,13.5;-0.3)>$	$<(4,5,6,7,8;0.5),(8,9,10,11,12;0.4),$ $(5.5,6,6.5,7,7.5;0.6),(6,7,8,9,10;-0.8),$ $(4,4.5,5,5.5,6;-0.3),(7,8,9,10,11;-0.6)>$	4
	$<(3,5,7,9,11;0.8),(2,4,6,8,10;0.4),$ $(6,7,8,9,10;0.2),(4,5,6,7,8;-0.6),$ $(7,8,9,10,11;-0.1),(9,10,11,12,13;-0.4)>$	$<(6,7,8,9,10;0.7),(9,10,11,12,13;0.2),$ $(8.5,9,9.5,10,10.5;0.4),(7.5,8,8.5,9,9.5;-0.6),$ $(10,11,12,13,14;-0.3),(8,10,12,14,16;-0.4)>$	$<(6,7,8,9,10;0.8),(5,7,9,11,13;0.4),$ $(6,6.5,7,7.5,8;0.6),(9,10,11,12,13;-0.9),$ $(6,8,10,12,14;-0.6),(7,8,9,10,11;-0.5)>$	5
3	$<(8,9,10,11,12;0.7),(8,8.5,9,9.5,10;0.4),$ $(10,11,12,13,14;0.3),(10,11,12,13,14;-0.4),$ $(6.5,7,7.5,8,8.5;-0.5),(9,10,11,12,13;-0.6)>$	$<(8,8.5,9,9.5,10;0.8),(10,11,12,13,14;0.4),$ $(7,7.5,8,8.5,9;0.3),(9,10,11,12,13;-0.5),$ $(5,6,7,8,9;-0.1),(9,9.5,10,10.5,11;-0.3)>$	$<(5,7,9,11,13;0.7),(8,9,10,11,12;0.4),$ $(7,8,9,10,11;0.3),(6.5,7,7.5,8,8.5;-0.6),$ $(9,10,11,12,13;-0.3),(10,11,12,13,14;-0.4)>$	1
	$<(10,11,12,13,14;0.6),(6,7,8,9,10;0.4),$ $(8,9,10,11,12;0.5),(5,5.5,6,6.5,7;-0.5),$ $(7,8,9,10,11;-0.4),(8,9,10,11,12;-0.3)>$	$<(8,9,10,11,12;0.5),(5,6,7,8,9;0.3),$ $(9,10,11,12,13;0.4),(12,13,14,15,16;-0.9),$ $(6.5,7.5,8.5,9.5,10.5;-0.3),(5.5,6,6.5,7,7.5;-0.6)>$	$<(7,9,11,13,14;0.7),(4,5,6,7,8;0.4),$ $(10,10.5,11,11.5,12;0.5),(6.5,7,7.5,8,8.5;-0.6),$ $(3,4,5,6,7;-0.1),(7,8,9,10,11;-0.4)>$	2
	$<(6,7,8,9,10;0.4),(8,9,10,11,12;0.1),$ $(10,10.5,11,11.5,12;0.6),(7,8,9,10,11;-0.5),$ $(10,11,12,13,14;-0.7),(8,9,10,11,12;-0.3)>$	$<(10,11,12,13,14;0.6),(9.5,10,10.5,11,11.5;0.2),$ $(6,7,8,9,10;0.2),(9,10,11,12,13;-0.7),$ $(10,10.5,11,11.5,12;-0.5),(11,12,13,14,15;-0.4)>$	$<(7,8,9,10,11;0.9),(5,6,7,8,9;0.4),$ $(6.5,7,7.5,8,8.5;0.3),(6,7,8,9,10;-0.7),$ $(5,6,7,8,9;-0.7),(7,7.5,8,8.5,9;-0.4)>$	3
	$<(7,8,9,10,11;0.6),(5,6,7,8,9;0.4),$ $(3,5,7,9,11;0.3),(9,10,11,12,13;-0.4),$ $(7.5,8,8.5,9,9.5;-0.7),(9,10,11,12,13;-0.4))>$	$<(7,8,9,10,11;0.4),(4,6,8,10,12;0.3),$ $(5,6,7,8,9;0.7),(10,11,12,13,14;-0.5),$ $(4,5,6,7,8;-0.4),(13,13.5,14,14.5,15;-0.7)>$	$<(6,7,8,9,10;0.4),(7,8,9,10,11;0.5),$ $(4,6,8,10,12;0.3),(3,5,7,9,11;-0.7),$ $(5,6,7,8,9;-0.4),(9,10,11,12,13;-0.5)>$	4
	$<(6,7,8,9,10;0.6),(5.5,6.5,7.5,8.5,9.5;0.5),$ $(6,8,10,12,14;0.3),(3,5,7,9,11;-0.4),$ $(9,11,13,15,17;-0.5),(10,11,12,13,14;-0.9)>$	$<(8.5,9.5,10.5,11.5,12.5;0.8),(10,11,12,13,14;0.4),$ $(5,6,7,8,9;0.6),(4,5,6,7,8;-0.3),$ $(9,10,11,12,13,-0.7),(8.5,10.5,12.5,14.5,16.5;-0.5)>$	$<(7,8,9,10,11;0.3),(3,5,7,9,11;0.5),$ $(6,7,8,9,10;0.7),(2,4,6,8,10;-0.6),$ $(4,5,6,7,8;-0.3),(6,7,8,9,10;-0.4)>$	5

Table 9: BPNFS input for $\widetilde{TrpC}_{jlk'}$ from the j^{th} extraction and recycling center to the l^{th} pharmaceutical company via $k^{'th}$ conveyance.

j	$k'=1$	$k'=2$	$k'=3$	l
1	$<(3,4,5,6,7;0.5),(2.5,3.5,4.5,5.5,6.5;0.6),$ $(6,7,8,9,10;0.4),(7,8,9,10,11;-0.3),$ $(4,6,8,10,12;-0.7),(3,5,7,9,11;-0.8)>$	$<(3,4,5,6,7;-0.6),(4,6,8,10,12;-0.5),$ $(2.5,3.5,4.5,5.5,6.5;0.5),(4,5,6,7,8,0.3),$ $(4,4.5,5,5.5,6,0.7),(2,2.5,3,3.5,4;-0.4)>$	$<(1,3,5,7,9;0.7),(3.5,4.5,5.5,6.5,7.5;0.4),$ $(2,4,6,8,10;0.5),(1.5,3.5,5.5,7.5,9.5;-0.3),$ $(3,5,7,9,11;-0.6),(2,3,4,5,6;-0.4)>$	1
	$<(2.5,3,3.5,4,4.5;0.7),(4.5,5.5,6.5,7.5,8.5;0.4),$ $(3,4,5,6,7;0.3),(2.5,3.5,4.5,5.5,6.5;-0.5),$ $(2,4,6,8,10;-0.4),(4,5,6,7,8;-0.6)>$	$<(4.5,6.5,8.5,10.5,12.5;0.4),(5,7,9,11,13;0.5),$ $(4.5,5,5.5,6,6.5;0.7),(7,9,11,13,15;-0.3),$ $(2,4,6,8,10;-0.5),(10,10.5,11,11.5,12;-0.6)>$	$<(3.5,4.5,5.5,6.5,7.5;0.5),(4,5,6,7,8;0.7),$ $(7,8,9,10,11;0.6),(3,4,5,6,7;-0.9),$ $(5.5,6.5,7.5,8.5,9.5;-0.6),(6,8,10,12,14;-0.5)>$	2
2	$<(2.5,3.5,4.5,5.5,6.5;0.6),(3,5,7,9,11;0.7),$ $(4,6,8,10,12;0.8),(5,7,9,11,13;-0.5),$ $(3.5,4.5,5.5,6.5,7.5;-0.6),(2,3,4,5,6;-0.4)>$	$<(7,8,9,10,11;0.6),(4,6,8,9,10;0.4),$ $(2,3,4,5,6;0.3),(3.5,4.5,5.5,6.5,7.5;-0.5),$ $(6,7,8,9,10;-0.7),(5,7,9,11,13;-0.8)>$	$<(5,6,7,8,9;0.4),(2,4,6,8,10;0.6),$ $(3,5,7,9,11;0.3),(4,5,6,7,8;-0.6),$ $(2,3,4,5,6;-0.7),(4,5,6,7,8;-0.2)>$	1
	$<(2.5,4.5,6.5,8.5,10.5;0.8),(2,3,4,5,6;0.7),$ $(1,2,3,4,5;0.3),(3.5,5,6.5,8,9.5;-0.6),$ $(1,2,3,4,5;-0.5),(1,3,5,7,9;-0.2)>$	$<(3,5,7,9,11;0.6),(4,5,6,7,8;0.5),$ $(5,5.5,6,6.5,7;0.1),(5.5,6.5,7.5,8.5,9.5;-0.2),$ $(2,4,6,8,10;-0.5),(6,7,8,9,10;-0.7)>$	$<(2,4,6,8,10;0.7),(2.5,3.5,4.5,5.5,6.5;0.4),$ $(4,7,10,13,16;0.1),(1,2,3,4,5;-0.5),$ $(3,5,7,9,11;-0.9),(1,1.5,2,2.5,3;-0.7)>$	2
3	$<(3,4,5,6,7;0.5),(4.5,5.5,6.5,7.5,8.5;0.4),$ $(5,6,7,8,9;0.3),(5,7,9,11,13;-0.6),$ $(2,4,6,8,10;-0.2),(4,5,6,7,8;-0.5)>$	$<(7,8,9,10,11;0.4),(3,5,7,9,11;0.8),$ $(4,5,6,7,8;0.6),(1,3,5,7,9;-0.5),$ $(3,4,5,6,7;-0.4),(2,3,4,5,6;-0.5)>$	$<(6,7,8,9,10;0.5),(4,5,6,7,8;0.4),$ $(2,4,6,8,10;0.3),(5,7,9,11,13;-0.5),$ $(5,6,7,8,9;-0.7),(4,6,8,10,12;-0.7)>$	1
	$<(2,4,6,8,10;0.6),(3.5,4.5,5.5,6.5,7.5;0.4),$ $(3,5,7,9,11;0.7),(4,6,8,10,12;-0.5),$ $(1,3,5,7,9;-0.3),(5,6,7,8,9;-0.5)>$	$<(2,3.5,5,6.5,8;0.7),(1,4,7,10,13;0.8),$ $(3,4,5,6,7;0.5),(1.5,2.5,3.5,4.5,5.5;-0.3),$ $(6,7,8,9,10;-0.4),(5,6,7,8,9;-0.2)>$	$<(4,5,6,7,8;0.5),(3,5,7,9,11;0.4),$ $(3,4,5,6,7;0.6),(1,2,3,4,5;-0.7),$ $(4,6,8,10,12;-0.5),(2,2.5,3,3.5,4;-0.6)>$	2
4	$<(2,3,4,5,6;0.4),(4,6,8,10,12;0.5),$ $(3,4,5,6,7;0.2),(4,5,6,7,8;-0.5),$ $(5,6,7,8,9;-0.6),(3,4,5,6,7;-0.2)>$	$<(4,5,6,7,8;0.8),(1,3,5,7,9;0.7),$ $(1,3,5,6,7;0.5),(3.5,4.5,5.5,6.5,7.5;-0.7),$ $(2,3,4,5,6;-0.5),(2,4,6,8,10;-0.3)>$	$<(4,5,6,7,8;0.8),(5,6,7,8,9;0.6),$ $(2,4,6,8,10;0.7),(3,5,7,9,11;-0.6),$ $(6,7,8,9,10;-0.7),(5,6,7,8,9;-0.5)>$	1
	$<(5,7,9,11,13;0.1),(2.5,4.5,6.5,8.5,10.5;0.2),$ $(3,5,7,9,11;0.4),(5,6,7,8,9;-0.3),$ $(3.5,4.5,5.5,6.5,7.5;-0.7),(4,6,8,10,12;-0.6)>$	$<(4,5,6,7,8;0.6),(1,3,5,7,9;0.3),$ $(4,5,6,7,8;0.5),(3,5,7,9,11;-0.6),$ $(2,4,6,8,10;-0.8),(3,4,5,6,7;-0.5)>$	$<(4,5,6,7,8;0.7),(2,4,6,8,10;0.5),$ $(6,7,8,9,10;0.3),(3.5,4.5,5.5,6.5,7.5;-0.5),$ $(1,3,5,7,8;-0.6),(4,6,8,10,12;-0.3)>$	2
5	$<(5.5,6.5,7.5,8.5,9.5;0.5),(3,5,7,9,11;0.6),$ $(5,6,7,8,9;0.3),(2,4,6,8,10;-0.4),$ $(3,4,5,6,7;-0.7),(5,6,7,8,9;-0.3)>$	$(1,3,5,7,9;0.4),(4.5,5.5,6.5,7.5,8.5;0.6),$ $(5,6,7,8,9;0.2),(3,4,5,6,7;-0.4),$ $(4,6,8,10,12;-0.5),(2,2.5,3,3.5,4;-0.2)>$	$<(3,4,5,6,7;0.4),(1,3,5,7,9;0.5),$ $(6,7,8,9,10;0.3),(2.5,3.5,4.5,5.5,6.5;-0.5),$ $(2,4,6,8,10;-0.7),(4,5,6,7,8;-0.6)>$	1
	$<(3,4,5,6,7;0.5),(5,7,9,11,13;0.3),$ $(5,6,7,8,9;0.4),(6.5,7.5,8.5,9.5,10.5;-0.2),$ $(2,4,6,8,10;-0.4),(5,6,7,8,9;-0.6)>$	$<(4,5,6,7,8;0.8),(2,4,6,8,10;0.6),$ $(5,6,7,8,9;0.3),(2.5,3.5,4.5,,5.5,6.5;-0.4),$ $(5,6,7,8,9;-0.6),(3,5,7,9,11;-0.5)>$	$<(4,5,6,7,8;0.3),(2,4,6,8,10;0.6),$ $(3,5,7,9,11;0.5),(4,5,6,7,8;-0.4),$ $(1,2,3,4,5;-0.5),(3,4,5,6,7;-0.7)>$	2

Table 10: BPNFS input for $\widetilde{TrmC}_{jmk''}$ from the j^{th} extraction and recycling center to the m^{th} manufacturing company via k''^{th} conveyance.

j	$k''=1$	$k''=2$	$k''=3$	m
1	$<(3,4,5,6,7;0.3),(1.5,2.5,3.5,4.5,5.5;0.4),$ $(2.5,3,3.5,4,4.5;0.2),(2,3,4,5,6;-0.5),$ $(1,2,3,4,5;-0.6),(1,1.5,2,2.5,3;-0.4)>$	$<(2.5,3.5,4.5,5.5,6.5;0.5),(1,3,5,7,9;0.7),$ $(4,5,6,7,8;0.4),(2,4,6,8,10;-0.6),$ $(3,4,5,6,7;-0.3),(5,6,7,8,9;-0.4)>$	$<(2,4,6,8,10;0.7),(2,2.5,3,3.5,4;0.4),$ $(3,4,5,6,7;0.3),(1,3,5,7,9;-0.5),$ $(3,4,5,6,7;-0.4),(1,1.5,2,2.5,3;-0.1)>$	1
	$<(3,4,5,6,7;0.5),(5,6,7,8,9;0.4),$ $(2.5,3.5,4.5,5.5,6.5;0.7),(4,5,6,7,8;-0.4),$ $(3,4,5,6,7;-0.2),(1,3,5,7,9;-0.6)>$	$<(0.5,1.5,2.5,3.5,4.5;0.5),(2,3,4,5,6;0.3),$ $(2.5,3,3.5,4,4.5;0.2),(2,4,5,6,7;-0.4),$ $(1.5,2.5,3.5,4.5,5.5;-0.6),(2,2.5,3,3.5,4;-0.5)>$	$<(3,4,5,6,7;0.4),(1.5,2.5,3.5,4.5,5.5;0.5),$ $(3.5,4,4.5,5,5.5;0.2),(3,4,5,6,7;-0.6),$ $(2.5,3.5,4.5,5.5,6.5;-0.7),(2,3,4,5,6;-0.4)>$	2
	$<(2,3,4,5,6;0.4),(3,3.5,4,4.5,5;0.6),$ $(0.5,0.6,0.7,0.8,0.9;0.5),(1,2,3,4,5;-0.7),$ $(1.3,1.4,1.5,1.6,1.7;-0.4),(2,3,4,5,6;-0.2)>$	$<(2,3,4,5,6;0.5),(3,3.5,4,4.5,5;0.2),$ $(2.5,3,3.5,4,4.5;0.4),(3,4,5,6,7;-0.4),$ $(2,3,4,5,6;-0.7),(2,2.5,3,3.5,4;-0.6)>$	$<(4.5,5.5,6.5,7.5,8.5;0.5),(4.5,5,5.5,6,6.5;0.3),$ $(2,3,4,5,6;0.6),(4,4.5,5,5.5,6;-0.2),$ $(3,4,5,6,7;-0.5),(4,5,6,7,8;-0.4)>$	3
2	$<(4,5,6,7,8;0.4),(3,4,5,6,7;0.3),$ $(4.5,5,5.5,6,6.5;0.4),(2.5,3,3.5,4,4.5;-0.5),$ $(3,4,5,6,7;-0.8),(4,4.5,5,5.5,6;-0.3)>$	$<(3.5,4,4.5,5,5.5;0.4),(3,3.5,4,4.5,5;0.5),$ $(4,4.5,5,5.5,6;0.8),(3,4,5,6,7;-0.7),$ $(2.5,3,3.5,4,4.5;-0.6),(3.5,4.5,5.5,6.5,7.5;-0.4)>$	$<(5,6,7,8,9;0.5),(3.5,4,4.5,5,5.5;0.8),$ $(6,7,8,9,10;0.4),(3.5,4.5,5.5,6.5,7.5;-0.5),$ $(4,4.5,5,5.5,6;-0.6),(4,5,6,7,8;-0.7)>$	1
	$<(3,4,5,6,7;0.7),(5,6,7,8,9;0.6),$ $(4,4.5,5,5.5,6;0.3),(6,7,8,9,10;-0.5),$ $(2.5,3.5,4.5,5.5,6.5;-0.4),(1.5,2.5,3.5,4.5,5.5;-0.7)>$	$<(3,4,5,6,7;0.4),(1,2,3,4,5;0.6),$ $(1.5,2.5,3.5,4.5,5.5;0.5),(2,3,4,5,6;-0.6),$ $(1.5,2,2.5,3,3.5;-0.2),(3,4,5,6,7;-0.5)>$	$<(2,3,4,5,6;0.5),(1.5,2,2.5,3,3.5;0.2),$ $(1.5,2.5,3.5,4.5,5.5;0.1),(2,2.5,3,3.5,4;-0.5),$ $(0.5,1,1.5,2,2.5;-0.6),(3,4,5,6,7;-0.7)>$	2
	$<(2,2.5,3,3.5,4;0.4),(2,3,4,5,6;0.8),$ $(1,2,3,4,5;0.6),(3.5,4,4.5,5,5.5;-0.5),$ $(2,3,4,5,6;-0.6),(2.5,3,3.5,4,4.5;-0.3)>$	$<(2.5,3.5,4.5,5.5,6.5;0.5),(1,1.5,2,2.5,3;0.2),$ $(3,4,5,6,7;0.4),(1.5,2.5,3.5,4.5,5.5;-0.7),$ $(2,3,4,5,6;-0.6),(3.5,4,4.5,5,5.5;-0.4)>$	$<(4.5,5.5,6.5,7.5,8.5;0.6),(4,5,6,7,8;0.7),$ $(3.5,4.5,5.5,6.5,7.5;0.4),(5,5.5,6,6.5,7;-0.3),$ $(2.5,3.5,4.5,5.5,6.5;-0.4),(3.5,4.5,5.5,6.5,7.5;-0.6)>$	3
3	$<(4,5,6,7,8;0.6),(2,4,6,8,10;0.5),$ $(1,2,3,4,5;0.7),(3,3.5,4,4.5,5;-0.4),$ $(2,3,4,5,6;-0.5),(1,2,3,4,5;-0.6)>$	$<(3.5,4.5,5.5,6.5,7.5;0.5),(1,2,3,4,5;0.4),$ $(1.5,2,2.5,3,3.5;0.7),(2,3,4,5,6;-0.3),$ $(2,2.5,3,3.5,4;-0.5),(1.5,2.5,3.5,4.5,5.5;-0.4)>$	$<(2,3,4,5,6;0.5),(1.5,2.5,3.5,4.5,5.5;0.3),$ $(1.5,2,2.5,3,3.5;0.4),(2.5,3,3.5,4,4.5;-0.5),$ $(0.5,1,1.5,2,2.5;-0.3),(1,2,3,4,5;-0.5)>$	1
	$<(3,4,5,6,7;0.4),(1,2,3,4,5;0.3),$ $(1.5,2,2.5,3,3.5;0.2),(2,3,4,5,6;-0.4),$ $(1,2,3,4,5;-0.2),(3,4,5,6,7;-0.1)>$	$<(2,3,4,5,6;0.5),(2.5,3.5,4.5,5.5,6.5;0.6),$ $(1,2,3,4,5;0.2),(3,4,5,6,7;-0.4),$ $(2.5,3,3.5,4,4.5;-0.5),(3,4,5,6,7;-0.4)>$	$<(1,2,3,4,5;0.4),(2.5,2.6,2.7,2.8,2.9;0.6),$ $(3.4,3.5,3.6,3.7,3.8;0.5),(2,3,4,5,6;-0.8),$ $(0.5,1,1.5,2,2.5;-0.6),(2.3,2.4,2.5,2.6,2.7;-0.2)>$	2
	$<(1,3,5,7,9;0.5),(2,3,4,5,6;0.6),$ $(3,4,5,6,7;0.2),(2,4,6,8,10;-0.4),$ $(3,4,5,6,7;-0.5),(4,5,6,7,8;-0.6)>$	$<(3,4,5,6,7;0.7),(1,3,5,7,9;0.3),$ $(2.5,3,3.5,4,4.5;0.5),(4,5,6,7,8;-0.6),$ $(4,5,6,7,8;-0.6),(1,1.5,2,2.5,3;-0.3)>$	$<(2,3,4,5,6;0.5),(4,4.2,4.4,4.6,4.8;0.6),$ $(1,2,3,4,5;0.9),(1.5,2,2.5,3,3.5;-0.2),$ $(1.5,1.75,2,2.25,2.5;-0.4),(1.5,1.6,1.7,1.8,1.9;-0.6)>$	3
4	$<(2.5,3,3.5,4,4.5;0.6),(1,3,5,7,9;0.4),$ $(2.5,3,3.5,4,4.5;0.3),(1.5,2.5,3.5,4.5,5.5;-0.7),$ $(3,4,5,6,7;-0.5),(1,1.5,2,2.5,3;-0.6)>$	$<(4.5,5,5.5,6,6.5;0.4),(4,5,6,7,8;0.3),$ $(1.5,2,2.5,3,3.5;0.5),(2,2.5,3,3.5,4;-0.9),$ $(3,4,5,6,7;-0.6),(2,3,4,5,6;-0.2)>$	$<(5,6,7,8,9;0.5),(2,3,4,5,6;0.4),$ $(1.5,2.5,3.5,4.5,5.5;0.2),(3,4,5,6,7;-0.6),$ $(4,5,6,7,8;-0.4),(1,2,3,4,5;-0.6)>$	1
	$<(1.5,2.5,3.5,4.5,5.5;0.3),(4,4.5,5,5.5,6;0.6),$ $(2,2.5,3,4,5;0.8),(1.5,2,2.5,3,3.5;-0.4),$ $(2,2.5,3,3.5,4;-0.6),(2,3,4,5,6;-0.2)>$	$<(1.5,2,2.5,3,3.5;0.8),(3,4,5,6,7;0.5),$ $(0.5,0.6,0.7,0.8,0.9;0.6),(2,3,4,5,6;-0.2),$ $(1.5,2.5,3.5,4.5,5.5;-0.6),(2.5,3,3.5,4,4.5;-0.8)>$	$<(4,5,6,7,8;0.6),(1.4,1.5,1.6,1.7,1.8;0.3),$ $(2.5,3.5,4.5,5.5,6.5;0.7),(3.5,4.5,5.5,6.5,7.5;-0.7),$ $(2.5,3,3.5,4,4.5;-0.5),(4,5,6,7,8;-0.8)>$	2
	$<(2,3,4,5,6;0.6),(3,3.5,4,4.5,5;0.3),$ $(2,4,6,8,10;0.7),(1,3,5,7,9;-0.5),$ $(1.5,2.5,3.5,4.5,5.5;-0.8),(5,5.5,6,6.5,7;-0.3)>$	$<(4,5,6,7,8;0.5),(2.5,3.5,4.5,5.5,6.5;0.2),$ $(2.5,3.5,4.5,5.5,6.5;0.1),(2,3,4,5,6;-0.5),$ $(4.5,5,5.5,6,6.5;-0.3),(3,4,5,6,7;-0.6)>$	$<(2.5,3.5,4.5,5.5,6.5;0.5),(4,5,6,7,8;0.3),$ $(2,4,6,8,10;0.7),(4.5,5.5,6.5,7.5,8.5;-0.7),$ $(3,4,5,6,7;-0.3),(5,6,7,8,9;-0.6)>$	3
5	$<(2,2.2,2.4,2.6,2.8;0.4),(1.5,2.5,3.5,4.5,5.5;0.2),$ $(3,3.1,3.2,3.3,3.4;0.5),(2,3,4,5,6;-0.5),$ $(1,2,3,4,5;-0.6),(1.5,2,2.5,3,3.5;-0.6)>$	$<(3.5,3.6,3.7,3.8,3.9;0.7),(3.7,3.8,3.9,4,4.1;0.1),$ $(1.5,2,2.5,3,3.5;0.5),(3.3,3.4,3.5,3.6,3.7;-0.3),$ $(1.3,1.5,1.7,1.9,2.1;-0.5),(4,4.1,4.2,4.3,4.4;-0.3)>$	$<(3,4,5,6,7;0.5),(3.5,4.5,5.5,6.5,7.5;0.1),$ $(3,5,7,9,11;0.6),(2,4,6,8,10;-0.5),$ $(1,2,3,4,5;-0.4),(1.5,2,2.5,3,3.5;-0.5)>$	1
	$<(2.5,3.5,4.5,5.5,6.5;0.4),(1,3,5,7,9;0.6),$ $(0.3,0.4,0.5,0.6,0.7;0.2),(1.2,1.3,1.4,1.5,1.6;-0.6),$ $(2,3,4,5,6;-0.3),(3,4,5,6,7;-0.7)>$	$<(2,3,4,5,6;0.4),(3.5,4.5,5.5,6.5,7.5;0.7),$ $(1.5,2.5,3.5,4.5,5.5;0.2),(2,3,4,5,6;-0.7),$ $(5,5.5,6,6.5,7;-0.4),(3,4,5,6,7;-0.7)>$	$<(4,5,6,7,8;0.6),(2.5,3.5,4.5,5.5,6.5;0.3),$ $(4.5,5,5.5,6,6.5;0.5),(5,5.5,6,6.5,7;-0.8),$ $(3,4,5,6,7;-0.3),(3.5,4.5,5.5,6.5,7.5;0.7)>$	2
	$<(4.5,5.5,6.5,7.5,8.5;0.2),(5,5.5,6,6.5,7;0.6),$ $(3,4,5,6,7;0.6),(2,4,6,8,10;-0.4),$ $(3.5,4.5,5.5,6.5,7.5;-0.2),(3,5,7,9,11;-0.7)>$	$<(2,3,4,5,6;0.6),(1,3,5,7,9;0.6),$ $(4,5,6,7,8;0.5),(2,4,6,8,10;-0.2),$ $(4,5,6,7,8;-0.6),(3.5,4,4.5,5,5.5;-0.3)>$	$<(3.5,4.5,5.5,6.5,7.5;0.6),(2,4,6,8,10;0.3),$ $(3.5,3.6,3.7,3.8,3.9;0.6),(1,2,3,4,5;-0.8),$ $(3,4,5,6,7;-0.4),(2.2,2.4,2.6,2.8,3;-0.2)>$	3

Table 11: BPNFS input for $\widetilde{SegT}_j$ at the j^{th} extraction and recycling center.

$j=1$	$j=2$	$j=3$
$<(0.002, 0.003, 0.004, 0.005, 0.006; 0.8)$, $(0.0002, 0.0003, 0.0004, 0.0005, 0.0006; 0.4)$, $(0.001, 0.003, 0.005, 0.007, 0.009; 0.1)$, $(0.0005, 0.0006, 0.0007, 0.0008, 0.0009; -0.7)$, $(0.002, 0.003, 0.004, 0.005, 0.006; -0.4)$, $(0.0001, 0.0003, 0.0005, 0.0007, 0.0009; -0.3)>$	$<(0.005, 0.01, 0.015, 0.02, 0.025; 0.4)$, $(0.001, 0.003, 0.005, 0.007, 0.009; 0.5)$, $(0.009, 0.0095, 0.01, 0.0105, 0.011; 0.8)$, $(0.002, 0.004, 0.006, 0.008, 0.01; -0.2)$, $(0.001, 0.0015, 0.002, 0.0025, 0.003; -0.5)$, $(0.001, 0.003, 0.005, 0.007, 0.009; -0.6)>$	$<(0.001, 0.0015, 0.002, 0.0025, 0.003; 0.7)$, $(0.001, 0.003, 0.005, 0.007, 0.009; 0.4)$, $(0.0005, 0.001, 0.0015, 0.002, 0.0025; 0.2)$, $(0.002, 0.004, 0.006, 0.008, 0.01; -0.1)$, $(0.001, 0.0015, 0.002, 0.0025, 0.003; -0.3)$, $(0.001, 0.003, 0.005, 0.007, 0.009; -0.4)>$
$j=4$	$j=5$	
$<(0.002, 0.004, 0.006, 0.008, 0.01; 0.4)$, $(0.0002, 0.0003, 0.0004, 0.0005, 0.0006; 0.6)$, $(0.001, 0.003, 0.005, 0.007, 0.009; 0.8)$, $(0.0005, 0.0006, 0.0007, 0.0008, 0.0009; -0.3)$, $(0.002, 0.003, 0.004, 0.005, 0.006; -0.5)$, $(0.0001, 0.0003, 0.0005, 0.0007, 0.0009; -0.6)>$	$(0.005, 0.01, 0.015, 0.02, 0.025; 0.5)$, $(0.001, 0.003, 0.005, 0.007, 0.009; 0.3)$, $(0.001, 0.002, 0.003, 0.004, 0.005; 0.6)$, $(0.002, 0.004, 0.006, 0.008, 0.01, -0.3)$, $(0.001, 0.0015, 0.002, 0.0025, 0.003, -0.5)$, $(0.001, 0.003, 0.005, 0.007, 0.009, -0.7)>$	

Table 12: BPNFS input for $\widetilde{ExT}_j$ at the j^{th} extraction and recycling center.

$j=1$	$j=2$	$j=3$
$<(0.2, 0.4, 0.6, 0.8, 1; 0.2)$, $(0.2, 0.3, 0.4, 0.5, 0.6; 0.6)$, $(0.4, 0.5, 0.6, 0.7, 0.8; 0.7)$, $(0.1, 0.2, 0.3, 0.4, 0.5; -0.1)$, $(0.2, 0.3, 0.4, 0.5, 0.6; -0.5)$, $(0.1, 0.3, 0.5, 0.7, 0.9; -0.8)>$	$<((0.5, 0.7, 0.9, 1.1, 1.3; 0.3)$, $(0.3, 0.4, 0.5, 0.6, 0.7; 0.5)$, $(0.3, 0.6, 0.9, 1.2, 1.5; 0.6)$, $(0.6, 0.7, 0.8, 0.9, 1; -0.4)$, $(0.4, 0.6, 0.8, 1, 1.2; -0.7)$, $(0.5, 0.6, 0.7, 0.8, 0.9; -0.8)>$	$<(0.4, 0.5, 0.6, 0.7, 0.8; 0.4)$, $(0.2, 0.3, 0.4, 0.5, 0.6; 0.6)$, $(0.3, 0.5, 0.7, 0.9, 1.1; 0.8)$, $(0.3, 0.4, 0.5, 0.6, 0.7; -0.6)$, $(0.2, 0.4, 0.6, 0.8, 1; -0.3)$, $(0.3, 0.4, 0.5, 0.6, 0.7; -0.4)>$
$j=4$	$j=5$	
$<(0.1, 0.3, 0.5, 0.7, 0.9; 0.7)$, $(0.2, 0.3, 0.4, 0.5, 0.6; 0.3)$, $(0.3, 0.4, 0.5, 0.6, 0.7; 0.4)$, $(0.3, 0.4, 0.5, 0.6, 0.7; -0.6)$, $(0.2, 0.4, 0.6, 0.8, 1; -0.3)$, $(0.2, 0.3, 0.4, 0.5, 0.6; -0.5)>$	$<(0.6, 0.7, 0.8, 0.9, 1; 0.3)$, $(0.4, 0.6, 0.8, 1, 1.2; 0.5)$, $(0.5, 0.6, 0.7, 0.8, 0.9; 0.7)$, $(0.6, 0.8, 1, 1.2, 1.4; -0.4)$, $(0.4, 0.5, 0.6, 0.7, 0.8; -0.3)$, $(0.3, 0.4, 0.5, 0.6, 0.7; -0.6)>$	

Table 13: BPNFS input for $\widetilde{ReT}_j$ at the j^{th} extraction and recycling center.

$j=1$	$j=2$	$j=3$
$<(0.3, 0.4, 0.5, 0.6, 0.7; 0.4)$, $(0.1, 0.2, 0.3, 0.4, 0.5; 0.6)$, $(0.4, 0.5, 0.6, 0.7, 0.8; 0.8)$, $(0.2, 0.3, 0.4, 0.5, 0.6; -0.2)$, $(0.2, 0.4, 0.6, 0.8, 1; -0.8)$, $(0.3, 0.4, 0.5, 0.6, 0.7; -0.4)>$	$<((0.3, 0.5, 0.7, 0.9, 1.1; 0.8)$, $(0.4, 0.6, 0.8, 1, 1.2; 0.4)$, $(0.5, 0.7, 0.9, 1.1, 1.3; 0.6)$, $(0.4, 0.5, 0.6, 0.7, 0.8; -0.7)$, $(0.5, 0.6, 0.7, 0.8, 0.9; -0.5)$, $(0.3, 0.5, 0.7, 0.9, 1.1; -0.2)>$	$<(0.3, 0.4, 0.5, 0.6, 0.7; 0.6)$, $(0.1, 0.2, 0.3, 0.4, 0.5; 0.2)$, $(0.1, 0.3, 0.5, 0.7, 0.9; 0.6)$, $(0.2, 0.4, 0.6, 0.8, 1; -0.3)$, $(0.1, 0.2, 0.3, 0.4, 0.5; -0.5)$, $(0.3, 0.4, 0.5, 0.6, 0.7; -0.7)>$
$j=4$	$j=5$	
$<(0.1, 0.2, 0.3, 0.4, 0.5; 0.3)$, $(0.2, 0.3, 0.4, 0.5, 0.6; 0.6)$, $(0.1, 0.3, 0.5, 0.7, 0.9; 0.8)$, $(0.2, 0.3, 0.4, 0.5, 0.6; -0.1)$, $(0.3, 0.4, 0.5, 0.6, 0.7; -0.5)$, $(0.1, 0.2, 0.3, 0.4, 0.5; -0.6)>$	$<(0.3, 0.5, 0.7, 0.9, 1.1; 0.5)$, $(0.5, 0.6, 0.7, 0.8, 0.9; 0.4)$, $(0.4, 0.5, 0.6, 0.7, 0.8; 0.6)$, $(0.5, 0.7, 0.9, 1.1, 1.3; -0.3)$, $(0.3, 0.4, 0.5, 0.6, 0.7; -0.7)$, $(0.5, 0.6, 0.7, 0.8, 0.9; -0.4)>$	

Table 14: BPNFS input for $\widetilde{TcrT}_{ijk}$ from the i^{th} collection center to the j^{th} extraction and recycling center via k^{th} conveyance.

i	$k=1$	$k=2$	$k=3$	j
1	$<(0.4,0.5,0.6,0.7,0.8;0.3),(0.5,0.6,0.7,0.8,0.9;0.2),$ $(0.6,0.7,0.8,0.9,1;0.4),(0.3,0.4,0.5,0.6,0.7;-0.4),$ $(0.3,0.4,0.5,0.6,0.7;-0.2),(0.6,0.7,0.8,0.9,1;-0.3)>$	$<(0.3,0.5,0.7,0.9,1.1;0.5),(0.2,0.4,0.6,0.8,1;0.2),$ $(0.9,1,1.1,1.2,1.3;0.7),(0.4,0.5,0.6,0.7,0.8;-0.4),$ $(0.1,0.3,0.5,0.7,0.9;-0.5),(1,1.1,1.2,1.3,1.4;-0.1)>$	$<(1,1.1,1.2,1.3,1.4;0.6),(0.4,0.5,0.6,0.7,0.8;0.3),$ $(0.7,0.8,0.9,1,1.1;0.5),(0.4,0.6,0.8,1,1.2;-0.2),$ $(0.8,0.9,1,1.1,1.2;-0.6),(0.6,0.7,0.8,0.9,1;-0.4)>$	1
	$<(0.5,0.6,0.7,0.8,0.9;0.6),(1,1.1,1.2,1.3,1.4;0.3),$ $(0.2,0.4,0.6,0.8,1;0.5),(0.8,0.9,1,1.1,1.2;-0.7),$ $(0.6,0.8,1,1.2,1.4;-0.3),(1,1.1,1.2,1.3,1.4;-0.6)>$	$<(0.6,0.7,0.8,0.9,1;0.6),(0.5,0.7,0.9,1.1,1.3;0.8),$ $(0.6,0.8,1,1.2,1.4;0.6),(0.4,0.5,0.6,0.7,0.8;-0.3),$ $(0.6,0.7,0.8,0.9,1;-0.6),(1,1.1,1.2,1.3,1.4;-0.4)>$	$<(0.5,0.6,0.7,0.8,0.9;0.5),(0.4,0.6,0.8,1,1.2;0.7),$ $(0.5,0.7,0.9,1.1,1.3;0.5),(1,1.1,1.2,1.3,1.4;-0.7),$ $(0.6,0.7,0.8,0.9,1;-0.2),(0.7,0.8,0.9,1,1.1;-0.6)>$	2
	$<(0.6,0.7,0.8,0.9,1;0.6),(1.2,1.4,1.6,1.8,2;0.7),$ $(1,1.1,1.2,1.3,1.4;0.5),(0.7,0.8,0.9,1,1.1;-0.4),$ $(0.6,0.7,0.8,0.9,1;-0.5),(0.9,1,1.1,1.2,1.3;-0.3)>$	$<(1.2,1.3,1.4,1.5,1.6;0.5),(0.9,1,1.1,1.2,1.3;0.7),$ $(0.5,0.7,0.9,1.1,1.3;0.4),(0.4,0.6,0.8,1,1.2;-0.6),$ $(1,1.2,1.4,1.6,1.8;-0.4),(0.6,0.8,1,1.2,1.4;-0.7)>$	$<(0.5,0.6,0.7,0.8,0.9;0.7),(0.6,0.8,1,1.2,1.4;0.4),$ $(0.8,0.9,1,1.1,1.2;0.5),(0.3,0.5,0.7,0.9,1.1;-0.4),$ $(0.6,0.7,0.8,0.9,1;-0.6),(1,1.1,1.2,1.3,1.4;-0.2)>$	3
	$<(0.7,0.8,0.9,1,1.1;0.6),(0.3,0.4,0.5,0.6,0.7;0.4),$ $(0.7,0.9,1.1,1.3,1.5;0.6),(0.6,0.7,0.8,0.9,1;-0.7),$ $(0.8,1,1.2,1.4,1.6;-0.3),(0.7,0.9,1.1,1.3,1.5;-0.4)>$	$<(0.6,0.7,0.8,0.9,1;0.9),(0.5,0.7,0.9,1.1,1.3;0.4),$ $(0.4,0.6,0.8,1,1.2;0.5),(0.3,0.4,0.5,0.6,0.7;-0.6),$ $(0.6,0.7,0.8,0.9,1;-0.5),(0.4,0.5,0.6,0.7,0.8;-0.3)>$	$<(0.6,0.7,0.8,0.9,1;0.6),(0.6,0.8,1,1.2,1.4;0.7),$ $(0.5,0.7,0.9,1.1,1.3;0.4),(0.8,1,1.2,1.4,1.6;-0.6),$ $(0.3,0.4,0.5,0.6,0.7;-0.4),(0.5,0.6,0.7,0.8,0.9;-0.2)>$	4
	$<(0.2,0.4,0.6,0.8,1;0.4),(0.6,0.7,0.8,0.9,1;0.5),$ $(0.5,0.6,0.7,0.8,0.9;0.6),(0.6,0.7,0.8,0.9,1;-0.3),$ $(0.4,0.5,0.6,0.7,0.8;-0.3),(0.5,0.7,0.9,1.1,1.3;-0.5)>$	$<(0.9,1,1.1,1.2,1.3;0.7),(0.4,0.6,0.8,1,1.2;0.5),$ $(0.2,0.3,0.4,0.5,0.6;0.4),(0.8,1,1.2,1.4,1.6;-0.6),$ $(0.5,0.7,0.9,1.1,1.3;-0.2),(0.6,0.7,0.8,0.9,1;-0.4)>$	$<(0.8,0.9,1,1.1,1.2;0.7),(0.3,0.5,0.7,0.9,1.1;0.4),$ $(0.4,0.5,0.6,0.7,0.8;0.3),(0.6,0.7,0.8,0.9,1;-0.5),$ $(0.2,0.4,0.6,0.8,1;-0.9),(0.3,0.5,0.7,0.9,1.1;-0.6)>$	5
2	$<(1.1,1.3,1.5,1.7,1.9;0.3),(0.7,0.8,0.9,1,1.1;0.5),$ $(0.4,0.5,0.6,0.7,0.8;0.6),(0.5,0.7,0.9,1.1,1.3;-0.4),$ $(0.2,0.4,0.6,0.8,1;-0.3),(0.8,0.9,1,1.1,1.2;-0.6)>$	$<(1,1.1,1.2,1.3,1.4;0.5),(0.8,1,1.2,1.4,1.6;0.6),$ $(0.3,0.4,0.5,0.6,0.7;0.3),(0.6,0.7,0.8,0.9,1;-0.4),$ $(1.1,1.2,1.3,1.4,1.5;-0.6),(0.5,0.6,0.7,0.8,0.9;-0.2)>$	$<(0.5,0.6,0.7,0.8,0.9;0.7),(0.3,0.4,0.5,0.6,0.7;0.8),$ $(0.2,0.4,0.6,0.8,1;0.3),(0.4,0.5,0.6,0.7,0.8;-0.5),$ $(0.6,0.7,0.8,0.9,1;-0.7),(0.1,0.3,0.5,0.7,0.9;-0.2)>$	1
	$<(1,1.1,1.2,1.3,1.4;0.7),(0.7,0.8,0.9,1,1.2;0.3),$ $(1,1.2,1.4,1.6,1.8;0.4),(0.8,1,1.2,1.4,1.6;-0.6),$ $(0.7,0.9,1.1,1.3,1.5;-0.5),(1.2,1.3,1.4,1.5,1.6;-0.3)>$	$<(0.6,0.7,0.8,0.9,1;0.5),(0.2,0.3,0.4,0.5,0.6;0.6),$ $(0.1,0.3,0.5,0.7,0.9;0.7),(0.4,0.5,0.6,0.7,0.8;-0.3),$ $(0.5,0.6,0.7,0.8,0.9;-0.6),(0.2,0.3,0.4,0.5,0.6;-0.3)>$	$<(0.7,0.8,0.9,1,1.1;0.6),(1.1,1.2,1.3,1.4,1.5;0.3),$ $(0.5,0.7,0.9,1.1,1.3;0.7),(0.5,0.6,0.7,0.8,0.9;-0.3),$ $(0.2,0.4,0.6,0.8,1;-0.7),(1.2,1.3,1.4,1.5,1.6;-0.1)>$	2
	$<(0.8,0.9,1,1.1,1.2;0.7),(1,1.1,1.2,1.3,1.4;0.4),$ $(0.6,0.8,1,1.2,1.4;0.6),(0.5,0.7,0.9,1.1,1.3;-0.7),$ $(1.2,1.3,1.4,1.5,1.6;-0.3),(0.7,0.8,0.9,1,1.1;-0.6)>$	$<(0.4,0.5,0.6,0.7,0.8;0.6),(0.8,0.9,1,1.1,1.2;0.3),$ $(0.3,0.5,0.7,0.9,1.1;0.6),(0.4,0.6,0.8,1,1.2;-0.7),$ $(0.5,0.6,0.7,0.8,0.9;-0.3),(1,1.1,1.2,1.3,1.4;-0.7)>$	$<(0.7,0.8,0.9,1,1.1;0.6),(0.3,0.5,0.7,0.9,1.1;0.7),$ $(0.6,0.7,0.8,0.9,1;0.3),(0.5,0.6,0.7,0.8,0.9;-0.5),$ $(0.2,0.4,0.6,0.8,1;-0.6),(0.3,0.4,0.5,0.6,0.7;-0.2)>$	3
	$<(0.5,0.6,0.7,0.8,0.9;0.7),(0.8,1,1.2,1.4,1.6;0.4),$ $(0.7,0.9,1.1,1.3,1.5;0.5),(0.7,0.8,0.9,1,1.1;-0.6),$ $(0.6,0.8,1,1.2,1.4;-0.3),(0.9,1,1.1,1.2,1.3;-0.5)>$	$<(0.8,1,1.2,1.4,1.6;0.5),(0.1,0.3,0.5,0.7,0.9;0.1),$ $(0.4,0.5,0.6,0.7,0.8;0.3),(0.3,0.5,0.7,0.9,1.1;-0.6),$ $(0.7,0.8,0.9,1,1.1;-0.7),(0.5,0.7,0.9,1.1,1.3;-0.3)>$	$<(1,1.2,1.4,1.6,1.8;0.6),(0.8,0.9,1,1.1,1.2;0.7),$ $(1.1,1.3,1.5,1.7,1.9;0.5),(0.6,0.7,0.8,0.9,1;-0.8),$ $(1.2,1.4,1.6,1.8,2;-0.5),(0.8,1,1.2,1.4,1.6;-0.3)>$	4
	$<(0.4,0.6,0.8,1,1.2,0.6),(0.5,0.7,0.9,1.1,1.3;0.4),$ $(0.7,0.8,0.9,1,1.1;0.3),(0.4,0.5,0.6,0.7,0.8;-0.7),$ $(0.6,0.7,0.8,0.9,1;-0.4),(0.7,0.9,1.1,1.3,1.5;-0.6)>$	$<(0.4,0.5,0.6,0.7,0.8;0.5),(0.6,0.7,0.8,0.9,1;0.6),$ $(0.5,0.7,0.9,1.1,1.3;0.7),(0.6,0.8,1,1.2,1.4;-0.4),$ $(0.9,1.1,1.3,1.5,1.7;-0.6),(0.4,0.5,0.6,0.7,0.8;-0.8)>$	$<(0.5,0.6,0.7,0.8,0.9;0.7),(0.5,0.7,0.9,1.1,1.3;0.3),$ $(0.4,0.6,0.8,1,1.2;0.5),(0.8,0.9,1,1.1,1.2;-0.9),$ $(0.6,0.7,0.8,0.9,1;-0.6),(0.7,0.9,1.1,1.3,1.5;-0.5)>$	5
3	$<(0.9,1,1.1,1.2,1.3;0.4),(0.6,0.7,0.8,0.9,1;0.7),$ $(1.2,1.4,1.6,1.8,2;0.2),(0.3,0.5,0.7,0.9,1.1;-0.6),$ $(1.4,1.5,1.6,1.7,1.8;-0.3),(0.8,0.9,1,1.1,1.2;-0.6)>$	$<(0.8,0.9,1,1.1,1.2;0.7),(0.6,0.7,0.8,0.9,1;0.9),$ $(0.5,0.6,0.7,0.8,0.9;0.2),(0.4,0.6,0.8,1,1.2;-0.5),$ $(0.4,0.5,0.6,0.7,0.8;-0.2),(0.8,1,1.2,1.4,1.6;-0.5)>$	$<(1,1.1,1.2,1.3,1.4;0.5),(0.8,0.9,1,1.1,1.2;0.7),$ $(0.8,1,1.2,1.4,1.6;0.6),(0.9,1,1.1,1.2,1.3;-0.6),$ $(0.4,0.6,0.8,1,1.2;-0.3),(0.5,0.7,0.9,1.1,1.3;-0.2)>$	1
	$<(0.7,0.8,0.9,1,1.1;0.7),(1.1,1.2,1.3,1.4,1.5;0.3),$ $(0.8,0.9,1,1.1,1.2;0.6),(0.3,0.5,0.7,0.9,1.1;-0.6),$ $(0.6,0.7,0.8,0.9,1;-0.3),(0.6,0.8,1,1.2,1.4;-0.7)>$	$<(0.4,0.5,0.6,0.7,0.8;0.5),(0.5,0.6,0.7,0.8,0.9;0.6),$ $(0.2,0.4,0.6,0.8,1;0.7),(0.7,0.8,0.9,1,1.1;-0.4),$ $(0.4,0.5,0.6,0.7,0.8;-0.7),(0.3,0.5,0.7,0.9,1.1;-0.9)>$	$<(0.6,0.7,0.8,0.9,1;0.6),(0.2,0.4,0.6,0.8,1;0.4),$ $(0.3,0.5,0.7,0.9,1.1;0.6),(0.5,0.6,0.7,0.8,0.9;-0.7),$ $(0.7,0.9,1.1,1.3,1.5;-0.4),(0.4,0.6,0.8,1,1.2;-0.2)>$	2
	$<(0.5,0.7,0.9,1.1,1.3;0.6),(0.8,0.9,1,1.1,1.2;0.5),$ $(0.7,0.8,0.9,1,1.1;0.7),(0.5,0.7,0.9,1.1,1.3;-0.3),$ $(0.7,0.8,0.9,1,1.1;-0.5),(0.4,0.6,0.8,1,1.2;-0.6)>$	$<(0.7,0.9,1.1,1.3,1.5;0.7),(0.6,0.8,1,1.2,1.4;0.5),$ $(0.4,0.7,1,1.3,1.6;0.4),(0.8,0.9,1,1.1,1.2;-0.7),$ $(1,1.1,1.2,1.3,1.4;-0.4),(0.7,0.9,1.1,1.3,1.5;-0.6)>$	$<(0.5,0.7,0.9,1.1,1.3;0.7),(0.4,0.6,0.8,1,1.2;0.5),$ $(1,1.1,1.2,1.3,1.4;0.6),(0.6,0.8,1,1.2,1.4;-0.4),$ $(1.1,1.2,1.3,1.4,1.5;-0.6),(0.5,0.7,0.9,1.1,1.3;-0.2)>$	3
	$<(1,1.1,1.2,1.3,1.4;0.5),(1,1.2,1.4,1.6,1.8;0.6),$ $(0.7,0.9,1.1,1.3,1.5;0.3),(0.9,1,1.1,1.2,1.3;-0.6),$ $(0.9,1.1,1.3,1.5,1.7;-0.4),(0.8,1,1.2,1.4,1.6;-0.2)>$	$<(0.5,0.6,0.7,0.8,0.9;0.6),(0.6,0.8,1,1.2,1.4;0.4),$ $(0.3,0.4,0.5,0.6,0.7;0.3),(0.8,0.9,1,1.1,1.2;-0.6),$ $(0.3,0.4,0.5,0.6,0.7;-0.7),(0.7,0.8,0.9,1,1.1;-0.3)>$	$<(0.6,0.7,0.8,0.9,1;0.6),(0.5,0.7,0.9,1.1,1.3;0.3),$ $(0.4,0.6,0.8,1,1.2;0.5),(0.3,0.5,0.7,0.9,1.1;-0.6),$ $(0.4,0.5,0.6,0.7,0.8;-0.3),(0.9,1,1.1,1.2,1.3;-0.7)>$	4
	$<(0.7,0.8,0.9,1,1.1;0.7),(0.4,0.6,0.8,1,1.2;0.4),$ $(0.6,0.7,0.8,0.9,1;0.5),(0.3,0.5,0.7,0.9,1.1;-0.6),$ $(0.9,1,1.1,1.2,1.3;-0.3),(0.7,0.8,0.9,1,1.1;-0.5)>$	$<(0.6,0.8,1,1.2,1.4;0.9),(0.7,0.9,1.1,1.3,1.5;0.6),$ $(0.5,0.6,0.7,0.8,0.9;0.4),(0.6,0.7,0.8,0.9,1;-0.8),$ $(0.7,0.8,0.9,1,1.1;-0.5),(0.8,1,1.2,1.4,1.6;-0.3)>$	$<(0.6,0.8,1,1.2,1.4;0.1),(0.3,0.5,0.7,0.9,1.1;0.4),$ $(1,1.2,1.4,1.6,1.8;0.6),(0.8,1,1.2,1.4,1.6;-0.7),$ $(0.5,0.6,0.7,0.8,0.9;-0.3),(0.7,0.9,1.1,1.3,1.5;-0.4)>$	5

Table 15: BPNFS input for $\widetilde{TrpT}_{jlk'}$ from the j^{th} extraction and recycling center to the l^{th} pharmaceutical company via k'^{th} conveyance.

j	$k'=1$	$k'=2$	$k'=3$	l
1	$<(0.3,0.5,0.7,0.9,1.1;0.6),(0.4,0.6,0.8,1,1.2;0.5),$ $(0.6,0.7,0.8,0.9,1;0.4),(0.7,0.8,0.9,1,1.1;-0.6),$ $(0.4,0.6,0.8,1,1.2;-0.3),(0.3,0.5,0.7,0.9,1.1;-0.3)>$	$<(0.8,0.9,1,1.1,1.2;0.6),(1,1.1,1.2,1.3,1.4;0.4),$ $(0.4,0.6,0.8,1,1.2;0.5),(0.5,0.7,0.9,1.1,1.3;-0.7),$ $(0.4,0.6,0.8,1,1.2;-0.2),(0.9,1.1,1.3,1.5,1.7;-0.4)>$	$<(0.3,0.5,0.7,0.9,1.1;0.8),(0.4,0.5,0.6,0.7,0.8;0.5),$ $(0.2,0.4,0.6,0.8,1;0.3),(0.6,0.7,0.8,0.9,1;-0.6),$ $(0.5,0.6,0.7,0.8,0.9;-0.3),(0.4,0.5,0.6,0.7,0.8;-0.4)>$	1
	$<(0.3,0.4,0.5,0.6,0.7;0.9),(0.2,0.3,0.4,0.5,0.6;0.5),$ $(0.3,0.5,0.7,0.9,1.1;0.3),(0.2,0.4,0.6,0.8,1;-0.6),$ $(0.5,0.6,0.7,0.8,0.9;-0.3),(0.1,0.2,0.3,0.4,0.5;-0.1)>$	$<(0.4,0.5,0.6,0.7,0.8;0.1),(0.5,0.7,0.9,1.1,1.3;0.3),$ $(0.4,0.6,0.8,1,1.2;0.6),(0.7,0.8,0.9,1,1.1;-0.5),$ $(0.4,0.6,0.8,1,1.2;-0.7),(0.8,1,1.2,1.4,1.6;-0.6)>$	$<(0.6,0.7,0.8,0.9,1;0.4),(0.8,1,1.2,1.4,1.6;0.6),$ $(0.7,0.9,1.1,1.3,1.5;0.8),(0.5,0.7,0.9,1.1,1.3;-0.4),$ $(0.8,0.9,1,1.1,1.2;-0.6),(1,1.2,1.4,1.6,1.8;-0.5)>$	2
2	$<(0.3,0.4,0.5,0.6,0.7;0.7),(0.1,0.3,0.5,0.7,0.9;0.4),$ $(0.2,0.4,0.6,0.8,1;0.3),(0.5,0.7,0.9,1.1,1.3;-0.8),$ $(0.3,0.4,0.5,0.6,0.7;-0.5),(0.2,0.3,0.4,0.5,0.6;-0.3)>$	$<(0.4,0.6,0.8,1,1.2;0.6),(0.9,1,1.1,1.2,1.3;0.3),$ $(0.5,0.6,0.7,0.8,0.9;0.1),(0.3,0.5,0.7,0.9,1.1;-0.7),$ $(0.6,0.7,0.8,0.9,1;-0.3),(0.3,0.5,0.7,0.9,1.1;-0.5)>$	$<(1,1.2,1.4,1.6,1.8;0.6),(0.5,0.6,0.7,0.8,0.9;0.5),$ $(0.6,0.8,1,1.2,1.4;0.4),(1,1.1,1.2,1.3,1.4;-0.8),$ $(0.3,0.5,0.7,0.9,1.1;-0.6),(0.6,0.7,0.8,0.9,1;-0.2)>$	1
	$<(0.2,0.4,0.6,0.8,1;0.8),(0.3,0.4,0.5,0.6,0.7;0.7),$ $(0.3,0.5,0.7,0.9,1.1;0.3),(0.4,0.5,0.6,0.7,0.8;-0.6),$ $(0.1,0.3,0.5,0.7,0.9;-0.5),(0.3,0.4,0.5,0.6,0.7;-0.2)>$	$<(1,1.1,1.2,1.3,1.4;0.5),(0.5,0.7,0.9,1.1,1.3;0.8),$ $(0.6,0.8,1,1.2,1.4;0.6),(1.1,1.3,1.5,1.7,1.9;-0.4),$ $(0.9,1.1,1.3,1.5,1.7;-0.6),(0.7,0.8,0.9,1,1.1;-0.7)>$	$<(0.4,0.6,0.8,1,1.2;0.5),(0.5,0.7,0.9,1.1,1.3;0.4),$ $(0.4,0.7,1,1.3,1.6;0.1),(0.4,0.5,0.6,0.7,0.8;-0.4),$ $(0.5,0.7,0.9,1.1,1.3;-0.8),(0.3,0.4,0.5,0.6,0.7;-0.7)>$	2
3	$<(0.2,0.3,0.4,0.5,0.6;0.5),(0.4,0.5,0.6,0.7,0.8;0.4),$ $(0.3,0.4,0.5,0.6,0.7;0.3),(0.3,0.4,0.5,0.6,0.7;-0.6),$ $(0.1,0.3,0.5,0.7,0.9;-0.2),(0.2,0.3,0.4,0.5,0.6;-0.5)>$	$<(0.8,0.9,1,1.1,1.2;0.4),(0.5,0.7,0.9,1.1,1.3;0.8),$ $(0.6,0.7,0.8,0.9,1;0.6),(0.7,0.9,1.1,1.3,1.5;-0.5),$ $(0.4,0.5,0.6,0.7,0.8;-0.4),(1,1.2,1.4,1.6,1.8;-0.5)>$	$<(0.9,1.1,1.3,1.5,1.7;0.5),(0.7,0.9,1.1,1.3,1.5;0.4),$ $(0.6,0.8,1,1.2,1.4;0.3),(0.5,0.7,0.9,1.1,1.3;-0.5),$ $(1,1.2,1.4,1.6,1.8;-0.7),(0.4,0.6,0.8,1,1.2;-0.7)>$	1
	$<(0.9,1,1.1,1.2,1.3;0.3),(0.7,0.9,1.1,1.3,1.5;0.5),$ $(0.5,0.6,0.7,0.8,0.9;0.7),(0.6,0.8,1,1.2,1.4;-0.7),$ $(0.7,0.8,0.9,1,1.1;-0.3),(1,1.1,1.2,1.3,1.4;-0.5)>$	$<(1.2,1.4,1.6,1.8,2;0.3),(0.7,0.9,1.1,1.3,1.5;0.8),$ $(0.9,1.1,1.3,1.5,1.7;0.6),(0.8,1,1.2,1.4,1.6;-0.6),$ $(0.7,0.8,0.9,1,1.1;-0.4),(0.6,0.7,0.8,0.9,1;-0.2)>$	$<((0.9,1,1.1,1.2,1.3;0.5),(0.5,0.7,0.9,1.1,1.3;0.4),$ $(0.3,0.4,0.5,0.6,0.7;0.6),(1,1.2,1.4,1.6,1.8;-0.7),$ $(0.2,0.4,0.6,0.8,1;-0.5),(0.5,0.6,0.7,0.8,0.9;-0.3)>$	2
4	$<(1,1.2,1.4,1.6,1.8;0.4),(0.4,0.6,0.8,1,1.2;0.5),$ $(0.9,1,1.1,1.2,1.3;0.2),(0.7,0.8,0.9,1,1.1;-0.5),$ $(0.8,1,1.2,1.4,1.6;-0.6),(1,1.1,1.2,1.3,1.4;-0.2)>$	$<(0.8,0.9,1,1.1,1.2;0.6),(0.9,1.1,1.3,1.5,1.7;0.3),$ $(0.8,1,1.2,1.4,1.6;0.5),(1,1.2,1.4,1.6,1.8;-0.7),$ $(1,1.1,1.2,1.3,1.4;-0.4),(0.7,0.9,1.1,1.3,1.5;-0.3)>$	$<(0.5,0.7,0.9,1.1,1.3;0.7),(0.8,0.9,1,1.1,1.2;0.4),$ $(0.4,0.6,0.8,1,1.2;0.5),(0.6,0.7,0.8,0.9,1;-0.6),$ $(0.6,0.8,1,1.2,1.4;-0.2),(0.7,0.8,0.9,1,1.1;-0.5)>$	1
	$<(0.9,1,1.1,1.2,1.3;0.5),(0.5,0.7,0.9,1.1,1.3;0.4),$ $(0.3,0.4,0.5,0.6,0.7;0.6),(1,1.2,1.4,1.6,1.8,-0.7),$ $(0.2,0.4,0.6,0.8,1;-0.5),(0.5,0.6,0.7,0.8,0.9;-0.3)>$	$<(1.2,1.3,1.4,1.5,1.6;0.9),(0.5,0.6,0.7,0.8,0.9;0.6),$ $(0.9,1.1,1.3,1.5,1.7;0.5),(0.6,0.8,1,1.2,1.4;-0.4),$ $(1,1.1,1.2,1.3,1.4;-0.8),(0.7,0.8,0.9,1,1.1;-0.5)>$	$<(0.9,1.1,1.3,1.5,1.7;0.9),(0.9,1,1.1,1.2,1.3;0.6),$ $(0.5,0.6,0.7,0.8,0.9;0.4),(1,1.1,1.2,1.3,1.4;-0.2),$ $(0.7,0.8,0.9,1,1.1;-0.6),(1,1.2,1.4,1.6,1.8;-0.5)>$	2
5	$<(1,1.1,1.2,1.3,1.4;0.8),(0.7,0.9,1.1,1.3,1.5;0.5),$ $(0.7,0.8,0.9,1,1.1;0.3),(0.6,0.8,1,1.2,1.4;-0.1),$ $(1,1.2,1.4,1.6,1.8;-0.7),(0.6,0.7,0.8,0.9,1;-0.3)>$	$<(0.6,0.8,1,1.2,1.4;0.4),(0.5,0.6,0.7,0.8,0.9;0.6),$ $(0.8,0.9,1,1.1,1.2;0.9),(0.6,0.8,1,1.2,1.4;-0.8),$ $(0.7,0.8,0.9,1,1.1;-0.4),(0.9,1,1.1,1.2,1.3;-0.2)>$	$<(0.5,0.6,0.7,0.8,0.9;0.6),(0.4,0.6,0.8,1,1.2;0.3),$ $(0.6,0.7,0.8,0.9,1;0.5),(0.6,0.8,1,1.2,1.4;-0.6),$ $(0.9,1,1.1,1.2,1.3;-0.2),(0.3,0.4,0.5,0.6,0.7;-0.4)>$	1
	$<(0.5,0.6,0.7,0.8,0.9;0.5),(0.4,0.6,0.8,1,1.2;0.3),$ $(1,1.1,1.2,1.3,1.4;0.4),(0.5,0.7,0.9,1.1,1.3;-0.2),$ $(1.1,1.2,1.3,1.4,1.5;-0.4),(0.4,0.5,0.6,0.7,0.8;-0.6)>$	$<(0.5,0.7,0.9,1.1,1.3;0.7),(0.6,0.7,0.8,0.9,1;0.4),$ $(0.4,0.5,0.6,0.7,0.8;0.3),(0.5,0.6,0.7,0.8,0.9;-0.1),$ $(0.3,0.5,0.7,0.9,1.1;-0.6),(0.6,0.7,0.8,0.9,1;-0.5)>$	$<(0.5,0.6,0.7,0.8,0.9;0.4),(0.1,0.3,0.5,0.7,0.9;0.7),$ $(0.2,0.3,0.4,0.5,0.6;0.5),(0.4,0.5,0.6,0.7,0.8;-0.1),$ $(0.2,0.3,0.4,0.5,0.6;-0.4),(0.4,0.5,0.6,0.7,0.8;-0.7)>$	2

Table 16: BPNFS input for $\widetilde{TrmT}_{jmk''}$ from the j^{th} extraction and recycling center to the m^{th} manufacturing company via k''^{th} conveyance.

j	$k'' = 1$	$k'' = 2$	$k'' = 3$	m
1	$<(1, 1.1, 1.2, 1.3, 1.4; 0.3), (0.8, 0.9, 1, 1.1, 1.2; 0.4),$ $(0.6, 0.8, 1, 1.2, 1.4; 0.6), (0.5, 0.7, 0.9, 1.1, 1.3; -0.5),$ $(0.9, 1.1, 1.3, 1.5, 1.7; -0.2), (0.7, 0.8, 0.9, 1, 1.1; -0.4)>$	$<(0.2, 0.4, 0.6, 0.8, 1; 0.8), (0.5, 0.7, 0.9, 1.1, 1.3; 0.5),$ $(0.7, 0.8, 0.9, 1, 1.1; 0.4), (0.9, 1, 1.1, 1.2, 1.3; -0.6),$ $(0.5, 0.6, 0.7, 0.8, 0.9; -0.3), (0.4, 0.5, 0.6, 0.7, 0.8; -0.4)>$	$<(0.5, 0.6, 0.7, 0.8, 0.9; 0.7), (1, 1.2, 1.4, 1.6, 1.8; 0.4),$ $(0.9, 1, 1.1, 1.2, 1.3; 0.3), (0.7, 0.8, 0.9, 1, 1.1; -0.5),$ $(0.6, 0.8, 1, 1.2, 1.4; -0.4), (0.7, 0.9, 1.1, 1.3, 1.5; -0.1)>$	1
	$<(0.4, 0.5, 0.6, 0.7, 0.8; 0.2), (0.2, 0.3, 0.4, 0.5, 0.6; 0.4),$ $(0.4, 0.6, 0.8, 1, 1.2; 0.7), (0.2, 0.3, 0.4, 0.5, 0.6; -0.9),$ $(0.1, 0.3, 0.5, 0.7, 0.9; -0.2), (0.3, 0.4, 0.5, 0.6, 0.7; -0.6)>$	$<(0.8, 0.9, 1, 1.1, 1.2; 0.5), (0.5, 0.6, 0.7, 0.8, 0.9; 0.3),$ $(0.5, 0.6, 0.7, 0.8, 0.9; 0.2), (0.4, 0.6, 0.8, 1, 1.2; -0.4),$ $(0.7, 0.9, 1.1, 1.3, 1.5; -0.6), (0.6, 0.7, 0.8, 0.9, 1; -0.5)>$	$<(1, 1.1, 1.2, 1.3, 1.4; 0.6), (0.7, 0.9, 1.1, 1.3, 1.5; 0.5),$ $(0.4, 0.5, 0.6, 0.7, 0.8; 0.2), (0.6, 0.7, 0.8, , 0.9, 1; -0.4),$ $(1, 1.1, 1.2, 1.3, 1.4; -0.6), (0.8, 1, 1.2, 1.4, 1.6; -0.7)>$	2
	$<(0.5, 0.6, 0.7, 0.8, 0.9; 0.5), (0.2, 0.4, 0.6, 0.8, 1; 0.3),$ $(0.7, 0.8, 0.9, 1, 1.1; 0.2), (0.9, 1, 1.1, 1.2, 1.3; -0.7),$ $(0.3, 0.5, 0.7, 0.9, 1.1; -0.4), (0.5, 0.6, 0.7, 0.8, 0.9; -0.2)>$	$<(0.5, 0.6, 0.7, 0.8, 0.9; 0.6), (0.8, 1, 1.2, 1.4, 1.6; 0.4),$ $(1, 1.2, 1.4, 1.6, 1.8; 0.3), (0.7, 0.8, 0.9, 1, 1.1; -0.8),$ $(0.7, 0.9, 1.1, 1.3, 1.5; -0.5), (0.8, 0.9, 1, 1.1, 1.2; -0.3)>$	$<(0.9, 1.1, 1.3, 1.5, 1.7; 0.8), (1, 1.1, 1.2, 1.3, 1.4; 0.3),$ $(0.6, 0.7, 0.8, 0.9, 1; 0.6), (0.8, 1, 1.2, 1.4, 1.6; -0.3),$ $(0.9, 1, 1.1, 1.2, 1.3; -0.5), (0.8, 0.9, 1, 1.1, 1.2; -0.4)>$	3
2	$<(0.6, 0.7, 0.8, 0.9, 1; 0.7), (0.7, 0.8, 0.9, 1, 1.1; 0.3),$ $(0.5, 0.7, 0.9, 1.1, 1.3; 0.4), (0.5, 0.6, 0.7, 0.8, 0.9, -0.4),$ $(0.7, 0.8, 0.9, 1, 1.1; -0.8), (0.3, 0.5, 0.7, 0.9, 1.1; -0.6)>$	$<(0.5, 0.7, 0.9, 1.1, 1.3; 0.4), (0.5, 0.6, 0.7, 0.8, 0.9; 0.5),$ $(0.6, 0.7, 0.8, 0.9, 1; 0.6), (0.2, 0.4, 0.6, 0.8, 1; -0.9),$ $(0.4, 0.5, 0.6, 0.7, 0.8; -0.4), (0.3, 0.4, 0.5, 0.6, 0.7; -0.3)>$	$<(0.7, 0.9, 1.1, 1.3, 1.5; 0.5), (0.4, 0.6, 0.8, 1, 1.2; 0.3),$ $(0.5, 0.6, 0.7, 0.8, 0.9; 0.4), (0.8, 0.9, 1, 1.1, 1.2; -0.5),$ $(1, 1.1, 1.2, 1.3, 1.4; -0.6), (0.7, 0.8, 0.9, 1, 1.1; -0.7)>$	1
	$<(0.4, 0.5, 0.6, 0.7, 0.8; 0.6), (0.4, 0.6, 0.8, 1, 1.2; 0.3),$ $(0.8, 0.9, 1, 1.1, 1.2; 0.2), (0.5, 0.7, 0.9, 1.1, 1.3; -0.8),$ $(0.6, 0.8, 1, 1.2, 1.4; -0.6), (0.3, 0.4, 0.5, 0.6, 0.7; -0.4)>$	$<(1, 1.1, 1.2, 1.3, 1.4; 0.3), (0.7, 0.8, 0.9, 1, 1.1; 0.5),$ $(0.8, 1, 1.2, 1.4, 1.6; 0.8), (0.6, 0.7, 0.8, 0.9, 1; -0.5),$ $(0.9, 1.1, 1.3, 1.5, 1.7; -0.2), (0.9, 1, 1.1, 1.2, 1.3; -0.1)>$	$<(1, 1.1, 1.2, 1.3, 1.4; 0.5), (1.3, 1.5, 1.7, 1.9, 2.1; 0.7),$ $(0.6, 0.8, 1, 1.2, 1.4; 0.6), (0.9, 1, 1.1, 1.2, 1.3; -0.3),$ $(1.1, 1.3, 1.5, 1.7, 1.9; -0.6), (1.2, 1.3, 1.4, 1.5, 1.6; -0.7)>$	2
	$<(0.4, 0.6, 0.8, 1, 1.2; 0.4), (0.3, 0.4, 0.5, 0.6, 0.7; 0.8),$ $(0.9, 1, 1.1, 1.2, 1.3; 0.6), (0.8, 0.9, 1, 1.1, 1.2; -0.5),$ $(0.6, 0.7, 0.8, 0.9, 1; -0.6), (0.5, 0.7, 0.9, 1.1, 1.3; -0.3)>$	$<(0.2, 0.3, 0.4, 0.5, 0.6; 0.6), (0.1, 0.3, 0.5, 0.7, 0.9; 0.2),$ $(0.3, 0.4, 0.5, 0.6, 0.7; 0.4), (0.2, 0.4, 0.6, 0.8, 1; -0.7),$ $(0.3, 0.4, 0.5, 0.6, 0.7; -0.5), (0.4.0.5, 0.6, 0.7, 0.8; -0.4)>$	$<(0.6, 0.7, 0.8, 0.9, 1; 0.6), (0.5, 0.7, 0.9, 1.1, 1.3; 0.7),$ $(0.7, 0.8, 0.9, 1, 1.1; 0.4), (0.4, 0.5, 0.6, 0.7, 0.8; -0.3),$ $(0.4, 0.6, 0.8, 1, 1.2; -0.4), (0.2, 0.3, 0.4, 0.5, 0.6; -0.6)>$	3
3	$<(0.6, 0.7, 0.8, 0.9, 1; 0.3), (0.4, 0.6, 0.8, 1, 1.2; 0.5),$ $(0.7, 0.9, 1.1, 1.3, 1.5; 0.7), (1, 1.1, 1.2, 1.3, 1.4; -0.1),$ $(0.7, 0.8, 0.9, 1, 1.1; -0.4), (0.2, 0.4, 0.6, 0.8, 1; -0.6)>$	$<(0.6, 0.8, 1, 1.2, 1.4; 0.3), (0.5, 0.7, 0.9, 1.1, 1.3; 0.6),$ $(0.5, 0.6, 0.7, 0.8, 0.9; 0.7), (0.7, 0.8, 0.9, 1, 1.1; -0.8),$ $(0.3, 0.4, 0.5, 0.6, 0.7; -0.5), (0.4, 0.6, 0.8, 1, 1.2; -0.4)>$	$<(1.2, 1.3, 1.4, 1.5, 1.6; 0.5), (0.5, 0.6, 0.7, 0.8, 0.9; 0.3),$ $(0.6, 0.8, 1, 1.2, 1.4; 0.4), (0.5, 0.7, 0.9, 1.1, 1.3; -0.5),$ $(1.1, 1.2, 1.3, 1.4, 1.5; -0.3), (0.7, 0.8, 0.9, 1, 1.1; -0.5)>$	1
	$<(0.7, 0.8, 0.9, 1, 1.1; 0.6), (0.8, 1, 1.2, 1.4, 1.6; 0.3),$ $(1.2, 1.4, 1.6, 1.8, 2; 0.2), (0.5, 0.7, 0.9, 1.1, 1.3; -0.5),$ $(1, 1.1, 1.2, 1.3, 1.4; -0.4), (0.6, 0.8, 1, 1.2, 1.4; -0.1)>$	$<(0.5, 0.6, 0.7, 0.8, 0.9; 0.8), (0.3, 0.5, 0.7, 0.9, 1.1; 0.6),$ $(0.6, 0.7, 0.8, 0.9, 1; 0.2), (0.6, 0.8, 1, 1.2, 1.4; -0.1),$ $(0.5, 0.7, 0.9, 1.1, 1.3; -0.8), (0.5, 0.6, 0.7, 0.8, 0.9; -0.7)>$	$<(0.5, 0.6, 0.7, 0.8, 0.9; 0.3), (0.6, 0.8, 1, 1.2, 1.4; 0.4),$ $(0.4, 0.6, 0.8, 1, 1.2; 0.5), (0.5, 0.7, 0.9, 1.1, 1.3; -0.1),$ $(0.8, 0.9, 1, 1.1, 1.2; -0.6), (0.5, 0.6, 0.7, 0.8, 0.9; -0.2)>$	2
	$<(0.6, 0.7, 0.8, 0.9, 1; 0.9), (1.1, 1.2, 1.3, 1.4, 1.5; 0.6),$ $(0.7, 0.9, 1.1, 1.3, 1.5; 0.3), (0.8, 1, 1.2, 1.4, 1.6; -0.6),$ $(0.8, 0.9, 1, 1.1, 1.2; -0.3), (0.5, 0.6, 0.7, 0.8, 0.9; -0.2)>$	$<(0.9, 1.1, 1.3, 1.5, 1.7; 0.7), (0.4, 0.6, 0.8, 1, 1.2; 0.3),$ $(0.7, 0.8, 0.9, 1, 1.1; 0.5), (0.3, 0.5, 0.7, 0.9, 1.1; -0.6),$ $(1, 1.2, 1.4, 1.6, 1.8; -0.2), (0.5, 0.7, 0.9, 1.1, 1.3; -0.3)>$	$<(0.6, 0.7, 0.8, 0.9, 1; 0.5), (0.5, 0.6, 0.7, 0.8, 0.9; 0.6),$ $(0.2, 0.4, 0.6, 0.8, 1; 0.9), (0.3, 0.5, 0.7, 0.9, 1.1; -0.2),$ $(0.4, 0.5, 0.6, 0.7, 0.8; -0.4), (0.4, 0.6, 0.8, 1, 1.2; -0.6)>$	3
4	$<(0.8, 0.9, 1, 1.1, 1.2; 0.9), (1.2, 1.3, 1.4, 1.5, 1.6; 0.6),$ $(0.4, 0.5, 0.6, 0.7, 0.8; 0.3), (0.6, 0.8, 1, 1.2, 1.4; -0.5),$ $(0.7, 0.9, 1.1, 1.3, 1.5; -0.4), (1, 1.2, 1.4, 1.6, 1.8; -0.1)>$	$<(0.5, 0.7, 0.9, 1.1, 1.3; 0.2), (0.8, 1, 1.2, 1.4, 1.6; 0.3),$ $(0.8, 0.9, 1, 1.1, 1.2; 0.5), (0.6, 0.8, 1, 1.2, 1.4; -0.9),$ $(0.7, 0.8, 0.9, 1, 1.1; -0.6), (0.6, 0.7, 0.8, 0.9, 1; -0.8)>$	$<(0.6, 0.7, 0.8, 0.9, 1; 0.5), (0.3, 0.5, 0.7, 0.9, 1.1; 0.4),$ $(0.4, 0.5, 0.6, 0.7, 0.8; 0.2), (0.3, 0.4, 0.5, 0.6, 0.7; -0.6),$ $(0.5, 0.6, 0.7, 0.8, 0.9; -0.4), (0.5, 0.6, 0.7, 0.8, 0.9; -0.6)>$	1
	$<(0.7, 0.8, 0.9, 1, 1.1; 0.3), (0.3, 0.5, 0.7, 0.9, 1.1; 0.6),$ $(0.4, 0.5, 0.6, 0.7, 0.8; 0.8), (0.3, 0.4, 0.5, 0.6, 0.7; -0.4),$ $(0.6, 0.7, 0.8, 0.9, 1; -0.6), (0.5, 0.6, 0.7, 0.8, 0.9; -0.2)>$	$<(0.6, 0.7, 0.8, 0.9, 1; 0.6), (0.5, 0.7, 0.9, 1.1, 1.3; 0.5),$ $(1.2, 1.4, 1.6, 1.8, 2; 0.3), (0.9, 1.1, 1.3, 1.5, 1.7; -0.2),$ $(0.7, 0.8, 0.9, 1, 1.1; -0.6), (0.5, 0.7, 0.9, 1.1, 1.3; -0.8)>$	$<(0.6, 0.8, 1, 1.2, 1.4; 0.6), (0.8, 1, 1.2, 1.4, 1.6; 0.3),$ $(0.7, 0.8, 0.9, 1, 1.1; 0.7), (0.7, 0.8, 0.9, 1, 1.1; -0.7),$ $(0.6, 0.8, 1, 1.2, 1.4; -0.5), (0.6, 0.7, 0.8, 0.9, 1; -0.8)>$	2
	$<(0.5, 0.6, 0.7, 0.8, 0.9; 0.6), (0.4, 0.5, 0.6, 0.7, 0.8; 0.3),$ $(0.1, 0.3, 0.5, 0.7, 0.9; 0.7), (0.2, 0.3, 0.4, 0.5, 0.6; -0.5),$ $(0.4, 0.5, 0.6, 0.7, 0.8; -0.8), (0.6, 0.7, 0.8, 0.9, 1; -0.3)>$	$<(0.5, 0.7, 0.9, 1.1, 1.3; 0.5), (0.6, 0.8, 1, 1.2, 1.4; 0.2),$ $(1, 1.1, 1.2, 1.3, 1.4; 0.1), (0.7, 0.9, 1.1, 1.3, 1.5; -0.5),$ $(0.6, 0.7, 0.8, 0.9, 1; -0.3), (0.5, 0.6, 0.7, 0.8, 0.9; -0.6)>$	$<(0.5, 0.6, 0.7, 0.8, 0.9; 0.5), (0.5, 0.7, 0.9, 1.1, 1.3; 0.3),$ $(1.2, 1.4, 1.6, 1.8, 2; 0.7), (0.7, 0.9, 1.1, 1.3, 1.5; -0.7),$ $(0.8, 0.9, 1, 1.1, 1.2; -0.3), (0.5, 0.7, 0.9, 1.1, 1.3; -0.6)>$	3
5	$<(0.6, 0.8, 1, 1.2, 1.4; 0.4), (0.7, 0.8, 0.9, 1, 1.1; 0.2),$ $(0.8, 1, 1.2, 1.4, 1.6; 0.5), (0.7, 0.9, 1.1, 1.3, 1.5; -0.5),$ $(0.9, 1, 1.1, 1.2, 1.3; -0.6), (0.8, 0.9, 1, 1.1, 1.2; -0.6)>$	$(0.3, 0.4, 0.5, 0.6, 0.7; 0.7), (0.4, 0.6, 0.8, 1, 1.2; 0.1),$ $(0.1, 0.2, 0.3, 0.4, 0.5; 0.5), (0.2, 0.4, 0.6, 0.8, 1; -0.3),$ $(0.1, 0.3, 0.5, 0.7, 0.9; -0.5), (0.2, 0.3, 0.4, 0.5, 0.6; -0.3)>$	$<(0.5, 0.6, 0.7, 0.8, 0.9; 0.5), (0.6, 0.8, 1, 1.2, 1.4; 0.1),$ $(0.5, 0.7, 0.9, 1.1, 1.3; 0.6), (0.6, 0.7, 0.8, 0.9, 1; -0.5),$ $(0.8, 0.9, 1, 1.1, 1.2; -0.4), (0.3, 0.4, 0.5, 0.6, 0.7; -0.5)>$	1
	$<(0.4, 0.5, 0.6, 0.7, 0.8; 0.4), (0.3, 0.5, 0.7, 0.9, 1.1; 0.6),$ $(0.1, 0.3, 0.5, 0.7, 0.9; 0.2), (0.2, 0.4, 0.6, 0.8, 1; -0.6),$ $(0.2, 0.3, 0.4, 0.5, 0.6; -0.3), (0.5, 0.6, 0.7, 0.8, 0.9; -0.7)>$	$<(0.7, 0.9, 1.1, 1.3, 1.5; 0.4), (0.8, 1, 1.2, 1.4, 1.6; 0.7),$ $(1.1, 1.2, 1.3, 1.4, 1.5; 0.2), (1, 1.2, 1.4, 1.6, 1.8; -0.7),$ $(0.7, 0.8, 0.9, 1, 1.1; -0.4), (0.6, 0.8, 1, 1.2, 1.4; -0.7)>$	$<(0.3, 0.5, 0.7, 0.9, 1.1; 0.6), (0.1, 0.2, 0.3, 0.4, 0.5; 0.3),$ $(0.5, 0.6, 0.7, 0.8, 0.9; 0.5), (0.5, 0.7, 0.9, 1.1, 1.3; -0.8),$ $(0.5, 0.6, 0.7, 0.8, 0.9; -0.3), (0.7, 0.8, 0.9, 1, 1.1; -0.7)>$	2
	$<(0.6, 0.8, 1, 1.2, 1.4; 0.2), (0.5, 0.7, 0.9, 1.1, 1.3; 0.6),$ $(1, 1.1, 1.2, 1.3, 1.4; 0.6), (0.6, 0.7, 0.8, 0.9, 1; -0.4),$ $(0.8, 0.9, 1, 1.1, 1.2; -0.2), (0.8, 1, 1.2, 1.4, 1.6; -0.7)>$	$<(0.7, 0.8, 0.9, 1, 1.1; 0.8), (0.6, 0.7, 0.8, 0.9, 1; 0.6),$ $(0.5, 0.7, 0.9, 1.1, 1.3; 0.5), (0.4, 0.6, 0.8, 1, 1.2; -0.4),$ $(0.5, 0.6, 0.7, 0.8, 0.9; -0.6), (0.7, 0.9, 1.1, 1.3, 1.5; -0.3))>$	$<(0.7, 0.9, 1.1, 1.3, 1.5; 0.6), (0.6, 0.7, 0.8, 0.9, 1; 0.3),$ $(1, 1.1, 1.2, 1.3, 1.4; 0.6), (0.9, 1, 1.1, 1.2, 1.3; -0.8),$ $(0.7, 0.8, 0.9, 1, 1.1; -0.4), (0.6, 0.8, 1, 1.2, 1.4; -0.2)>$	3

Table 17: BPNFS input for $\widetilde{ExE}_j$ at the j^{th} extraction and recycling center.

$j=1$	$j=2$	$j=3$
$<(0.15,0.16,0.17,0.18,0.19;0.7),(0.1,0.12,0.14,0.16,0.18;0.3),$ $(0.05,0.06,0.07,0.08,0.09;0.4),(0.22,0.24,0.26,0.28,0.3;-0.6),$ $(0.03,0.04,0.05,0.06,0.07;-0.3),(0.1,0.11,0.12,0.13,0.14;-0.5)>$	$<(0.2,0.21,0.22,0.23,0.24;0.3),(0.1,0.12,0.14,0.16,0.18;0.5),$ $(0.1,0.15,0.2,0.25,0.3;0.6),(0.22,0.24,0.26,0.28,0.3;-0.4),$ $(0.13,0.14,0.15,0.16,0.17;-0.7),(0.1,0.11,0.12,0.13,0.14;-0.8)>$	$<(0.12,0.14,0.16,0.18,0.2;0.4),(0.08,0.09,0.1,0.11,0.12;0.6),$ $(0.22,0.23,0.24,0.25,0.26;0.8),(0.2,0.22,0.24,0.26,0.28;-0.6),$ $(0.05,0.06,0.07,0.08,0.09;-0.3),(0.13,0.14,0.15,0.16,0.17;-0.4)>$
$j=4$	$j=5$	
$<(0.15,0.16,0.17,0.18,0.19;0.2),(0.1,0.12,0.14,0.16,0.18;0.5),$ $(0.1,0.11,0.12,0.13,0.14;0.7),(0.22,0.24,0.26,0.28,0.3;-0.1),$ $(0.11,0.12,0.13,0.14,0.15;-0.3),(0.1,0.11,0.12,0.13,0.14;-0.5)>$	$<(0.2,0.21,0.22,0.23,0.24;0.2),(0.1,0.12,0.14,0.16,0.18;0.6),$ $(0.1,0.15,0.2,0.25,0.3;0.7),(0.22,0.24,0.26,0.28,0.3;-0.1),$ $(0.13,0.14,0.15,0.16,0.17;-0.5),(0.1,0.11,0.12,0.13,0.14;-0.8)>$	

Table 18: BPNFS input for $\widetilde{ReE}_j$ at the j^{th} extraction and recycling center.

$j=1$	$j=2$	$j=3$
$<(0.11,0.12,0.13,0.14,0.15;0.4),(0.06,0.08,0.1,0.12,0.14;0.7),$ $(0.08,0.09,0.1,0.11,0.12;0.8),(0.05,0.07,0.09,0.11,0.13;-0.6),$ $(0.04,0.06,0.08,0.1,0.12;-0.1),(0.09,0.11,0.13,0.15,0.17;-0.5)>$	$<(0.05,0.06,0.07,0.08,0.09;0.7),(0.02,0.04,0.06,0.08,0.1;0.3),$ $(0.04,0.05,0.06,0.07,0.08;0.4),(0.03,0.04,0.05,0.06,0.07;-0.6),$ $(0.03,0.05,0.07,0.09,0.11;-0.3),(0.04,0.06,0.08,0.1,0.12;-0.5)>$	$<(0.08,0.1,0.12,0.14,0.16;0.4),(0.06,0.08,0.1,0.12,0.14;0.6),$ $(0.04,0.05,0.06,0.07,0.08;0.8),(0.05,0.07,0.09,0.11,0.13;-0.6),$ $(0.02,0.04,0.06,0.08,0.1;-0.3),(0.09,0.1,0.11,0.12,0.13;-0.4)>$
$j=4$	$j=5$	
$<(0.07,0.09,0.11,0.13,0.15;0.2),(0.04,0.06,0.08,0.1,0.12;0.5),$ $(0.06,0.07,0.08,0.09,0.1;0.7),(0.05,0.07,0.09,0.11,0.13;-0.1),$ $(0.03,0.05,0.07,0.09,0.11;-0.3),(0.04,0.06,0.08,0.1,0.12;-0.5)>$	$<(0.1,0.12,0.14,0.16,0.18;0.2),(0.06,0.08,0.1,0.12,0.14;0.6),$ $(0.05,0.06,0.07,0.08,0.09;0.7),(0.05,0.07,0.09,0.11,0.13;-0.1),$ $(0.02,0.04,0.06,0.08,0.1;-0.5),(0.09,0.1,0.11,0.12,0.13;-0.8)>$	

Table 19: BPNFS input for $\widetilde{TrpE}_{jlk'}$ from the j^{th} extraction and recycling center to the l^{th} pharmaceutical company via k'^{th} conveyance.

j	$k'=1$	$k'=2$	$k'=3$	l
1	$<(0.2,0.21,0.22,0.23,0.24;0.2),(0.15,0.17,0.19,0.21,0.23;0.4),$ $(0.12,0.13,0.14,0.15,0.16;0.7),(0.11,0.12,0.13,0.14,0.15;-0.2),$ $(0.12,0.14,0.16,0.18,0.2;-0.6),(0.06,0.08,0.1,0.12,0.14;-0.5)>$	$<(0.3,0.32,0.34,0.36,0.38;0.8),(0.23,0.24,0.25,0.26,0.27;0.3),$ $(0.41,0.42,0.43,0.44,0.45;0.2),(0.25,0.26,0.27,0.28,0.29;-0.7),$ $(0.45,0.46,0.47,0.48,0.49;-0.3),(0.12,0.13,0.14,0.15,0.16;-0.1)>$	$<(0.06,0.07,0.08,0.09,0.1;0.4),(0.01,0.011,0.012,0.013,0.014;0.5),$ $(0.09,0.091,0.092,0.093,0.094;0.7),(0.04,0.05,0.06,0.07,0.08;-0.6),$ $(0.02,0.04,0.06,0.08,0.1;-0.3),(0.1,0.11,0.12,0.13,0.14;-0.4)>$	1
	$<(0.04,0.05,0.06,0.07,0.08;0.8),(0.034,0.036,0.038,0.04,0.042;0.5),$ $(0.1,0.11,0.12,0.13,0.14;0.3),(0.03,0.031,0.032,0.033,0.034;-0.6),$ $(0.06,0.07,0.08,0.09,0.1;-0.3),(0.03,0.05,0.07,0.09,0.11;-0.1)>$	$<(0.12,0.13,0.14,0.15,0.16;0.3),(0.04,0.07,0.1,0.13,0.16;0.5),$ $(0.2,0.21,0.22,0.23,0.24;0.6),(0.13,0.14,0.15,0.16,0.17;-0.1),$ $(0.16,0.17,0.18,0.19,0.2;-0.5),(0.09,0.1,0.11,0.12,0.13;-0.6)>$	$<(0.23,0.24,0.25,0.26,0.27;0.2),(0.21,0.23,0.25,0.27,0.29;0.5),$ $(0.15,0.16,0.17,0.18,0.19;0.6),(0.15,0.17,0.19,0.21,0.23;-0.5),$ $(0.19,0.21,0.23,0.25,0.27;-0.7),(0.22,0.23,0.24,0.25,0.26;-0.6)>$	2
2	$<(0.1,0.14,0.18,0.22,0.26;0.1),(0.2,0.21,0.22,0.23,0.24;0.4),$ $(0.13,0.14,0.15,0.16,0.17;0.3),(0.1,0.11,0.12,0.13,0.14;-0.5),$ $(0.06,0.07,0.08,0.09,0.1;-0.2),(0.09,0.11,0.13,0.15,0.17;-0.3)>$	$<(0.16,0.18,0.2,0.22,0.24;0.6),(0.1,0.13,0.16,0.19,0.22;0.3),$ $(0.08,0.1,0.12,0.14,0.16;0.1),(0.12,0.13,0.14,0.15,0.16;-0.7),$ $(0.09,0.1,0.11,0.12,0.13;-0.3),(0.07,0.08,0.09,0.1,0.11;-0.5)>$	$<(0.2,0.21,0.22,0.23,0.24;0.6),(0.3,0.31,0.32,0.33,0.34;0.5),$ $(0.1,0.12,0.14,0.16,0.18;0.4),(0.22,0.24,0.26,0.28,0.3;-0.8),$ $(0.35,0.37,0.39,0.41,0.43;-0.6),(0.28,0.29,0.3,0.31,0.32;-0.2)>$	1
	$<(0.2,0.22,0.24,0.26,0.28;0.8),(0.15,0.16,0.17,0.18,0.19;0.5),$ $(0.12,0.13,0.14,0.15,0.16;0.3),(0.08,0.1,0.12,0.14,0.16;-0.7),$ $(0.23,0.25,0.27,0.29,0.31;-0.4),(0.21,0.22,0.23,0.24,0.25;-0.2)>$	$<(0.12,0.13,0.14,0.15,0.16;0.3),(0.1,0.11,0.12,0.13,0.14;0.7),$ $(0.2,0.21,0.22,0.23,0.24;0.6),(0.08,0.09,0.1,0.11,0.12;-0.4),$ $(0.1,0.13,0.16,0.19,0.22;-0.5),(0.07,0.1,0.13,0.16,0.19;-0.8)>$	$<(0.04,0.045,0.05,0.055,0.06;0.5),(0.01,0.02,0.03,0.04,0.05;0.4),$ $(0.1,0.11,0.12,0.13,0.14;0.1),(0.06,0.061,0.062,0.063,0.064;-0.4),$ $(0.03,0.035,0.04,0.045,0.05;-0.8),(0.11,0.12,0.13,0.14,0.15;-0.7)>$	2
3	$<(0.2,0.22,0.24,0.26,0.28;0.7),(0.14,0.15,0.16,0.17,0.18;0.5),$ $(0.23,0.25,0.27,0.29,0.31;0.2),(0.15,0.16,0.17,0.18,0.19;-0.6),$ $(0.12,0.13,0.14,0.15,0.16;-0.2),(0.2,0.21,0.22,0.23,0.24;-0.5)>$	$<(0.3,0.32,0.34,0.36,0.38;0.3),(0.2,0.25,0.3,0.35,0.4;0.7),$ $(0.21,0.24,0.27,0.3,0.33;0.5),(0.2,0.23,0.26,0.29,0.32;-0.2),$ $(0.32,0.35,0.38,0.41,0.44;-0.3),(0.18,0.19,0.2,0.21,0.22;-0.7)>$	$<(0.05,0.052,0.054,0.056,0.058;0.5),(0.01,0.02,0.03,0.04,0.05;0.4),$ $(0.1,0.11,0.12,0.13,0.14;0.3),(0.04,0.05,0.06,0.07,0.08;-0.5),$ $(0.077,0.078,0.079,0.08,0.081;-0.7),(0.06,0.07,0.08,0.09,0.1;-0.7)>$	1
	$<(0.4,0.42,0.44,0.46,0.48;0.3),(0.14,0.15,0.16,0.17,0.18;0.5),$ $(0.31,0.32,0.33,0.34,0.35;0.7),(0.15,0.16,0.17,0.18,0.19;-0.7),$ $(0.28,0.29,0.3,0.31,0.32;-0.3),(0.31,0.32,0.33,0.34,0.35;-0.5)>$	$<(0.03,0.04,0.05,0.06,0.07;0.5),(0.1,0.11,0.12,0.13,0.14;0.7),$ $(0.02,0.04,0.06,0.08,0.1;0.9),(0.02,0.05,0.08,0.11,0.14;-0.3),$ $(0.11,0.12,0.13,0.14,0.15;-0.8),(0.045,0.05,0.055,0.06,0.065;-0.5)>$	$<(0.14,0.17,0.2,0.23,0.26;0.3),(0.2,0.22,0.24,0.26,0.28;0.7),$ $(0.17,0.2,0.23,0.26,0.29;0.6),(0.2,0.21,0.22,0.23,0.24;-0.5),$ $(0.16,0.18,0.2,0.22,0.24;-0.7),(0.24,0.26,0.28,0.3,0.32;-0.8)>$	2
4	$<(0.1,0.12,0.14,0.16,0.18;0.3),(0.15,0.17,0.19,0.21,0.23;0.5),$ $(0.09,0.11,0.13,0.15,0.17;0.7),(0.13,0.14,0.15,0.16,0.17;-0.3),$ $(0.13,0.15,0.17,0.19,0.21;-0.6),(0.1,0.11,0.12,0.13,0.14;-0.8)>$	$<(0.024,0.026,0.028,0.03,0.032;0.4),(0.02,0.03,0.04,0.05,0.06;0.7),$ $(0.077,0.079,0.081,0.083,0.085;0.5),(0.1,0.11,0.12,0.13,0.14;-0.2),$ $(0.09,0.091,0.092,0.093,0.094;-0.8),(0.06,0.07,0.08,0.09,0.1;-0.5)>$	$<(0.2,0.22,0.24,0.26,0.28;0.1),(0.15,0.17,0.19,0.21,0.23;0.4),$ $(0.2,0.21,0.22,0.23,0.24;0.5),(0.16,0.17,0.18,0.19,0.2;-0.6),$ $(0.24,0.26,0.28,0.3,0.32;-0.2),(0.12,0.13,0.14,0.15,0.16;-0.5)>$	1
	$<(0.1,0.12,0.14,0.16,0.18;0.3),(0.06,0.07,0.08,0.09,0.1;0.6),$ $(0.075,0.08,0.085,0.09,0.095;0.5),(0.04,0.05,0.06,0.07,0.08;-0.3),$ $(0.02,0.04,0.06,0.08,0.1;-0.7),(0.03,0.05,0.07,0.09,0.11;-0.6)>$	$<(0.4,0.41,0.42,0.43,0.44;0.9),(0.25,0.3,0.35,0.4,0.45;0.6),$ $(0.26,0.28,0.3,0.32,0.34;0.5),(0.44,0.45,0.46,0.47,0.48;-0.4),$ $(0.36,0.37,0.38,0.39,0.4;-0.8),(0.2,0.21,0.22,0.23,0.24;-0.5)>$	$<(0.1,0.11,0.12,0.13,0.14;0.9),(0.09,0.1,0.11,0.12,0.13;0.6),$ $(0.1,0.12,0.14,0.16,0.18;0.4),(0.06,0.08,0.1,0.12,0.14;-0.2),$ $(0.2,0.21,0.22,0.23,0.24;-0.6),(0.08,0.09,0.1,0.11,0.12;-0.5)>$	2
5	$<(0.4,0.42,0.44,0.46,0.48;0.5),(0.24,0.26,0.28,0.3,0.32;0.3),$ $(0.31,0.32,0.33,0.34,0.35;0.1),(0.25,0.26,0.27,0.28,0.29;-0.3),$ $(0.45,0.48,0.51,0.54,0.57;-0.5),(0.3,0.31,0.32,0.33,0.34;-0.7)>$	$<(0.2,0.22,0.24,0.26,0.28;0.4),(0.24,0.25,0.26,0.27,0.28;0.6),$ $(0.33,0.36,0.39,0.42,0.45;0.9),(0.23,0.24,0.25,0.26,0.27;-0.8),$ $(0.16,0.17,0.18,0.19,0.2;-0.4),(0.35,0.37,0.39,0.41,0.43;-0.2)>$	$<(0.09,0.1,0.11,0.12,0.13;0.6),(0.1,0.12,0.14,0.16,0.18;0.3),$ $(0.17,0.18,0.19,0.2,0.21;0.5),(0.06,0.08,0.1,0.12,0.14;-0.6),$ $(0.1,0.11,0.12,0.13,0.14;-0.2),(0.13,0.14,0.15,0.16,0.17;-0.4)>$	1
	$<(0.2,0.23,0.26,0.29,0.32;0.8),(0.12,0.13,0.14,0.15,0.16;0.2),$ $(0.1,0.11,0.12,0.13,0.14;0.3),(0.25,0.27,0.29,0.31,0.33;-0.7),$ $(0.15,0.17,0.19,0.21,0.23;-0.4),(0.14,0.16,0.18,0.2,0.22;-0.2)>$	$<(0.05,0.07,0.09,0.11,0.13;0.7),(0.06,0.07,0.08,0.09,0.1;0.4),$ $(0.045,0.055,0.065,0.075,0.085;0.3),(0.05,0.06,0.07,0.08,0.09;-0.1),$ $(0.05,0.07,0.09,0.11,0.13;-0.6),(0.02,0.03,0.04,0.05,0.06;-0.5)>$	$<(0.25,0.3,0.35,0.4,0.45;0.2),(0.33,0.34,0.35,0.36,0.37;0.5),$ $(0.4,0.41,0.42,0.43,0.44;0.7),(0.14,0.16,0.18,0.2,0.22;-0.1),$ $(0.24,0.25,0.26,0.27,0.28;-0.4),(0.26,0.27,0.28,0.29,0.3;-0.8)>$	2

Table 20: BPNFS input for $\widetilde{TcrE}_{ijk}$ from the i^{th} collection center to the j^{th} extraction and recycling center via k^{th} conveyance.

i	$k=1$	$k=2$	$k=3$	j
1	$<(0.31,0.32,0.33,0.34,0.35;0.7),(0.24,0.25,0.26,0.27,0.28;0.2),$ $(0.46,0.47,0.48,0.49,0.5;0.4),(0.22,0.23,0.24,0.25,0.26;-0.6),$ $(0.44,0.45,0.46,0.47,0.48;-0.2),(0.2,0.21,0.22,0.23,0.24;-0.3)>$	$<(0.13,0.14,0.15,0.16,0.17;0.2),(0.15,0.17,0.19,0.21,0.23;0.5),$ $(0.12,0.13,0.14,0.15,0.16;0.7),(0.16,0.18,0.2,0.22,0.24;-0.6),$ $(0.1,0.12,0.14,0.16,0.18;-0.5),(0.11,0.13,0.15,0.17,0.19;-0.1)>$	$<(0.15,0.17,0.19,0.21,0.23;0.7),(0.2,0.21,0.22,0.23,0.24;0.3),$ $(0.13,0.14,0.15,0.16,0.17;0.3),(0.22,0.23,0.24,0.25,0.26;-0.6),$ $(0.24,0.25,0.26,0.27,0.28;-0.4),(0.1,0.11,0.12,0.13,0.14;-0.2)>$	1
	$<(0.35,0.36,0.37,0.38,0.39;0.6),(0.25,0.26,0.27,0.28,0.29;0.3),$ $(0.21,0.22,0.23,0.24,0.25;0.5),(0.25,0.27,0.29,0.31,0.33;-0.7),$ $(0.31,0.32,0.33,0.34,0.35;-0.3),(0.24,0.25,0.26,0.27,0.28;-0.6)>$	$<(0.12,0.14,0.16,0.18,0.2;0.5),(0.24,0.25,0.26,0.27,0.28;0.7),$ $(0.08,0.09,0.1,0.11,0.12;0.6),(0.24,0.25,0.26,0.27,0.28;-0.2),$ $(0.05,0.06,0.07,0.08,0.09;-0.7),(0.15,0.16,0.17,0.18,0.19;-0.5)>$	$<(0.5,0.6,0.7,0.8,0.9;0.5),(0.4,0.6,0.8,1,1.2;0.7),$ $(0.13,0.15,0.17,0.19,0.21;0.5),(0.22,0.23,0.24,0.25,0.26;-0.7),$ $(0.21,0.23,0.25,0.27,0.29;-0.2),(0.15,0.16,0.17,0.18,0.19;-0.6)>$	2
	$<(0.33,0.35,0.37,0.39,0.41;0.6),(0.42,0.44,0.46,0.48,0.5;0.7),$ $(0.26,0.27,0.28,0.29,0.3;0.5),(0.35,0.36,0.37,0.38,0.39;-0.4),$ $(0.4,0.41,0.42,0.43,0.44;-0.5),(0.1,0.15,0.2,0.25,0.3;-0.3)>$	$<(0.06,0.07,0.08,0.09,0.1;0.5),(0.03,0.05,0.07,0.09,0.11;0.7),$ $(0.013,0.014,0.015,0.016,0.017;0.4),(0.01,0.011,0.012,0.013,0.014;-0.6),$ $(0.1,0.12,0.14,0.16,0.18;-0.4),(0.05,0.06,0.07,0.08,0.09;-0.7)>$	$<(0.25,0.26,0.27,0.28,0.29;0.7),(0.34,0.35,0.36,0.37,0.38;0.4),$ $(0.11,0.12,0.13,0.14,0.15;0.5),(0.17,0.18,0.19,0.2,0.21;-0.4),$ $(0.23,0.25,0.27,0.29,0.31;-0.6),(0.12,0.13,0.14,0.15,0.16;-0.2)>$	3
	$<(0.3,0.31,0.32,0.33,0.34;0.6),(0.24,0.26,0.28,0.3,0.32;0.4),$ $(0.14,0.17,0.2,0.23,0.26;0.6),(0.13,0.16,0.19,0.22,0.25;-0.7),$ $(0.21,0.22,0.23,0.24,0.25;-0.3),(0.31,0.33,0.35,0.37,0.39;-0.4)>$	$<(0.05,0.06,0.07,0.08,0.09;0.9),(0.04,0.07,0.1,0.13,0.16;0.4),$ $(0.1,0.11,0.12,0.13,0.14;0.5),(0.026,0.036,0.046,0.056,0.066;-0.6),$ $(0.04,0.05,0.06,0.07,0.08;-0.5),(0.05,0.07,0.09,0.11,0.13;-0.3)>$	$<(0.15,0.17,0.19,0.21,0.23;0.6),(0.04,0.08,0.12,0.16,0.2;0.7),$ $(0.09,0.12,0.15,0.18,0.21;0.4),(0.1,0.11,0.12,0.13,0.14;-0.6),$ $(0.08,0.09,0.1,0.11,0.12;-0.4),(0.07,0.08,0.09,0.1,0.11;-0.2)>$	4
	$<(0.23,0.24,0.25,0.26,0.27;0.4),(0.25,0.27,0.29,0.31,0.33;0.5),$ $(0.31,0.33,0.35,0.37,0.39;0.6),(0.34,0.35,0.36,0.37,0.38;-0.3),$ $(0.21,0.23,0.25,0.27,0.29;-0.3),(0.25,0.27,0.29,0.31,0.33;-0.5)>$	$<(0.13,0.15,0.17,0.19,0.21;0.7),(0.23,0.26,0.29,0.32,0.35;0.5),$ $(0.23,0.24,0.25,0.26,0.27;0.4),(0.15,0.16,0.17,0.18,0.19;-0.6),$ $(0.16,0.18,0.2,0.22,0.24;-0.2),(0.19,0.2,0.21,0.22,0.23;-0.4)>$	$<(0.06,0.07,0.08,0.09,0.1;0.7),(0.03,0.06,0.09,0.12,0.15;0.4),$ $(0.07,0.08,0.09,0.1,0.11;0.3),(0.04,0.06,0.08,0.1,0.12;-0.5),$ $(0.07,0.08,0.09,0.1,0.11;-0.9),(0.02,0.04,0.06,0.08,0.1;-0.6)>$	5
2	$<(0.14,0.16,0.18,0.2,0.22;0.3),(0.24,0.25,0.26,0.27,0.28;0.5),$ $(0.13,0.15,0.17,0.19,0.21;0.6),(0.12,0.14,0.16,0.18,0.2;-0.4),$ $(0.2,0.22,0.24,0.26,0.28;-0.3),(0.21,0.23,0.25,0.27,0.29;-0.6)>$	$<(0.09,0.1,0.11,0.12,0.13;0.7),(0.05,0.06,0.07,0.08,0.09;0.4),$ $(0.03,0.05,0.07,0.09,0.11;0.3),(0.04,0.06,0.08,0.1,0.12;-0.7),$ $(0.07,0.08,0.09,0.1,0.11;-0.4),(0.04,0.05,0.06,0.07,0.08;-0.1)>$	$<(0.54,0.55,0.56,0.57,0.58;0.7),(0.35,0.36,0.37,0.38,0.39;0.5),$ $(0.4,0.41,0.42,0.43,0.44;0.3),(0.25,0.26,0.27,0.28,0.29;-0.7),$ $(0.3,0.31,0.32,0.33,0.34;-0.4),(0.45,0.46,0.47,0.48,0.49;-0.2)>$	1
	$<(0.21,0.23,0.25,0.27,0.29;0.7),(0.31,0.32,0.33,0.34,0.35;0.3),$ $(0.26,0.27,0.28,0.29,0.3;0.4),(0.23,0.24,0.25,0.26,0.27;-0.6),$ $(0.3,0.31,0.32,0.33,0.34;-0.5),(0.21,0.22,0.23,0.24,0.25;-0.3)>$	$<(0.41,0.42,0.43,0.44,0.45;0.5),(0.2,0.22,0.24,0.26,0.28;0.6),$ $(0.4,0.42,0.44,0.46,0.48;0.7),(0.34,0.36,0.38,0.4,0.42;-0.3),$ $(0.3,0.4,0.42,0.44,0.46;-0.6),(0.23,0.25,0.27,0.29,0.31;-0.3)>$	$<(0.3,0.32,0.34,0.36,0.38;0.2),(0.25,0.27,0.29,0.31,0.33;0.5),$ $(0.27,0.28,0.29,0.3,0.31;0.4),(0.27,0.28,0.29,0.3,0.31;-0.3),$ $(0.32,0.33,0.34,0.35,0.36;-0.5),(0.21,0.22,0.23,0.24,0.25;-0.6)>$	2
	$<(0.45,0.46,0.47,0.48,0.49;0.7),(0.37,0.39,0.41,0.43,0.45;0.4),$ $(0.25,0.26,0.27,0.28,0.29;0.6),(0.44,0.46,0.48,0.5,0.52;-0.7),$ $(0.41,0.42,0.43,0.44,0.45;-0.3),(0.5,0.51,0.52,0.53,0.54;-0.6)>$	$<(0.1,0.11,0.12,0.13,0.14;0.6),(0.13,0.15,0.17,0.19,0.21;0.3),$ $(0.2,0.21,0.22,0.23,0.24;0.6),(0.09,0.1,0.11,0.12,0.13;-0.7),$ $(0.1,0.13,0.16,0.19,0.22;-0.3),(0.06,0.08,0.1,0.12,0.14;-0.7)>$	$<(0.21,0.23,0.25,0.27,0.29;0.6),(0.16,0.17,0.18,0.19,0.2;0.7),$ $(0.25,0.26,0.27,0.28,0.29;0.3),(0.12,0.13,0.14,0.15,0.16;-0.5),$ $(0.2,0.22,0.24,0.26,0.28;-0.6),(0.12,0.14,0.16,0.18,0.2;-0.2)>$	3
	$<(0.5,0.51,0.52,0.53,0.54;0.7),(0.2,0.25,0.3,0.35,0.4;0.4),$ $((0.25,0.27,0.29,0.31,0.33;0.5),(0.34,0.35,0.36,0.37,0.38;-0.6),$ $(0.25,0.26,0.27,0.28,0.29;-0.3),(0.22,0.26,0.3,0.34,0.38;-0.5)>$	$<(0.14,0.16,0.18,0.2,0.22;0.5),(0.15,0.16,0.17,0.18,0.19;0.1),$ $(0.06,0.07,0.08,0.09,0.1;0.3),(0.15,0.16,0.17,0.18,0.19;-0.6),$ $(0.08,0.1,0.12,0.14,0.16;-0.7),(0.12,0.13,0.14,0.15,0.16;-0.3)>$	$<(0.01,0.013,0.016,0.019,0.022;0.6),(0.04,0.06,0.08,0.1,0.12;0.7),$ $(0.06,0.07,0.08,0.09,0.1;0.5),(0.012,0.014,0.016,0.018,0.02;-0.8),$ $(0.1,0.11,0.12,0.13,0.14;-0.5),(0.067,0.068,0.069,0.07,0.071;-0.3)>$	4
	$<(0.4,0.42,0.44,0.46,0.48;0.6),(0.36,0.37,0.38,0.39,0.4;0.4),$ $(0.2,0.22,0.24,0.26,0.28;0.3),(0.14,0.17,0.2,0.23,0.26;-0.7),$ $(0.23,0.24,0.25,0.26,0.27;-0.4),(0.5,0.51,0.52,0.53,0.54;-0.6)>$	$<(0.1,0.12,0.14,0.16,0.18;0.5),(0.15,0.17,0.19,0.21,0.23;0.6),$ $(0.21,0.22,0.23,0.24,0.25;0.7),(0.04,0.08,0.12,0.16,0.2;-0.4),$ $(0.03,0.06,0.09,0.12,0.15;-0.6),(0.15,0.17,0.19,0.21,0.23;-0.8)>$	$<(0.2,0.21,0.22,0.23,0.24;0.7),(0.25,0.26,0.27,0.28,0.29;0.3),$ $(0.21,0.22,0.23,0.24,0.25;0.5),(0.16,0.17,0.18,0.19,0.2;-0.9),$ $(0.12,0.14,0.16,0.18,0.2;-0.6),(0.23,0.25,0.27,0.29,0.31;-0.5)>$	5
3	$<(0.09,0.1,0.11,0.12,0.13;0.3),(0.05,0.06,0.07,0.08,0.09;0.6),$ $(0.03,0.05,0.07,0.09,0.11;0.4),(0.06,0.07,0.08,0.09,0.1;-0.4),$ $(0.02,0.04,0.06,0.08,0.1;-0.3),(0.01,0.03,0.05,0.07,0.09;-0.6)>$	$<(0.1,0.11,0.12,0.13,0.14;0.7),(0.09,0.1,0.11,0.12,0.13;0.5),$ $(0.06,0.08,0.1,0.12,0.14;0.2),(0.2,0.22,0.24,0.26,0.28;-0.6),$ $(0.08,0.09,0.1,0.11,0.12;-0.3),(0.1,0.12,0.14,0.16,0.18;-0.4)>$	$<(0.4,0.42,0.44,0.46,0.48;0.5),(0.3,0.31,0.32,0.33,0.34;0.7),$ $(0.24,0.25,0.26,0.27,0.28;0.6),(0.2,0.21,0.22,0.23,0.24;-0.6),$ $(0.45,0.46,0.47,0.48,0.49;-0.3),(0.34,0.35,0.36,0.37,0.38;-0.2)>$	1
	$<(0.2,0.23,0.26,0.29,0.32;0.7),(0.34,0.35,0.36,0.37,0.38;0.3),$ $(0.4,0.41,0.42,0.43,0.44;0.6),(0.25,0.26,0.27,0.28,0.29;-0.6),$ $(0.41,0.43,0.45,0.47,0.49;-0.3),(0.2,0.21,0.22,0.23,0.24;-0.7)>$	$<(0.2,0.22,0.24,0.26,0.28;0.3),(0.3,0.32,0.34,0.36,0.38;0.6),$ $(0.34,0.35,0.36,0.37,0.38;0.5),(0.3,0.31,0.32,0.33,0.34;-0.1),$ $(0.26,0.27,0.28,0.29,0.3;-0.5),(0.15,0.16,0.17,0.18,0.19;-0.9)>$	$<(0.07,0.09,0.11,0.13,0.15;0.6),(0.14,0.15,0.16,0.17,0.18;0.4),$ $(0.1,0.11,0.12,0.13,0.14;0.3),(0.08,0.09,0.1,0.11,0.12;-0.8),$ $(0.05,0.07,0.09,0.11,0.13;-0.4),(0.1,0.12,0.14,0.16,0.18;-0.2)>$	2
	$<(0.21,0.22,0.23,0.24,0.25;0.6),(0.12,0.14,0.16,0.18,0.2;0.5),$ $(0.22,0.23,0.24,0.25,0.26;0.7),(0.25,0.26,0.27,0.28,0.29;-0.3),$ $(0.11,0.12,0.13,0.14,0.15;-0.5),(0.2,0.21,0.22,0.23,0.24;-0.6)>$	$<(0.07,0.08,0.09,0.1,0.11;0.7),(0.1,0.11,0.12,0.13,0.14;0.5),$ $(0.04,0.05,0.06,0.07,0.08;0.4),(0.035,0.036,0.037,0.038,0.039;-0.7),$ $(0.06,0.07,0.08,0.09,0.1;-0.4),(0.02,0.04,0.06,0.08,0.1;-0.6)>$	$<(0.35,0.36,0.37,0.38,0.39;0.7),(0.45,0.46,0.47,0.48,0.49;0.5),$ $(0.25,0.26,0.27,0.28,0.29;0.6),(0.31,0.33,0.35,0.37,0.39;-0.4),$ $(0.32,0.33,0.34,0.35,0.36;-0.6),(0.4,0.41,0.42,0.43,0.44;-0.2)>$	3
	$<(0.02,0.04,0.06,0.08,0.1;0.5),(0.1,0.11,0.12,0.13,0.14;0.6),$ $(0.04,0.05,0.06,0.07,0.08;0.3),(0.01,0.02,0.03,0.04,0.05;-0.6),$ $(0.013,0.014,0.015,0.016,0.017;-0.4),(0.07,0.09,0.11,0.13,0.15;-0.2)>$	$<(0.2,0.22,0.24,0.26,0.28;0.6),(0.15,0.17,0.19,0.21,0.23;0.4),$ $(0.23,0.24,0.25,0.26,0.27;0.3),(0.17,0.19,0.21,0.23,0.25;-0.6),$ $(0.26,0.27,0.28,0.29,0.3;-0.7),(0.13,0.14,0.15,0.16,0.17;-0.3)>$	$<(0.2,0.22,0.24,0.26,0.28;0.6),(0.1,0.11,0.12,0.13,0.14;0.3),$ $(0.13,0.14,0.15,0.16,0.17;0.5),(0.14,0.15,0.16,0.17,0.18;-0.6),$ $(0.11,0.13,0.15,0.17,0.19;-0.3),(0.06,0.08,0.1,0.12,0.14;-0.7)>$	4
	$<(0.2,0.22,0.24,0.26,0.28;0.7),(0.23,0.25,0.27,0.29,0.31;0.4),$ $(0.2,0.21,0.22,0.23,0.24;0.5),(0.15,0.16,0.17,0.18,0.19;-0.6),$ $(0.14,0.16,0.18,0.2,0.22;-0.3),(0.21,0.22,0.23,0.24,0.25;-0.5)>$	$<(0.3,0.31,0.32,0.33,0.34;0.9),(0.25,0.26,0.27,0.28,0.29;0.6),$ $(0.15,0.17,0.19,0.21,0.23;0.4),(0.14,0.15,0.16,0.17,0.18;-0.8),$ $(0.16,0.17,0.18,0.19,0.2;-0.5),(0.26,0.28,0.3,0.32,0.34;-0.3)>$	$<(0.5,0.51,0.52,0.53,0.54;0.2),(0.2,0.25,0.3,0.35,0.4;0.4),$ $(0.25,0.27,0.29,0.31,0.33;0.6),(0.34,0.35,0.36,0.37,0.38;-0.7),$ $(0.25,0.26,0.27,0.28,0.29;-0.3),(0.22,0.26,0.3,0.34,0.38;-0.4)>$	5

Table 21: BPNFS input for $\widetilde{TrmE}_{jmk''}$ from the j^{th} extraction and recycling center to the m^{th} manufacturing company via k''^{th} conveyance.

j	$k'' = 1$	$k'' = 2$	$k'' = 3$	m
1	$<((0.15, 0.17, 0.19, 0.21, 0.23; 0.4), (0.22, 0.23, 0.24, 0.25, 0.26; 0.7),$ $(0.24, 0.25, 0.26, 0.27, 0.28; 0.8), (0.16, 0.17, 0.18, 0.19, 0.2; -0.3),$ $(0.22, 0.23, 0.24, 0.25, 0.26; -0.5), (0.2, 0.22, 0.24, 0.26, 0.28; -0.7) >$	$<(0.13, 0.15, 0.17, 0.19, 0.21; 0.7), (0.16, 0.17, 0.18, 0.19, 0.2; 0.3),$ $(0.04, 0.05, 0.06, 0.07, 0.08; 0.2), (0.14, 0.15, 0.16, 0.17, 0.18; -0.5),$ $(0.02, 0.04, 0.06, 0.08, 0.1; -0.2), (0.1, 0.12, 0.14, 0.16, 0.18; -0.1) >$	$<(0.1, 0.11, 0.12, 0.13, 0.14; 0.3), (0.12, 0.14, 0.16, 0.18, 0.2; 0.5),$ $(0.14, 0.15, 0.16, 0.17, 0.18; 0.7), (0.14, 0.15, 0.16, 0.17, 0.18; -0.3),$ $(0.11, 0.13, 0.15, 0.17, 0.19; -0.6), (0.1, 0.11, 0.12, 0.13, 0.14; -0.5) >$	1
	$<(0.1, 0.11, 0.12, 0.13, 0.14; 0.2), (0.12, 0.13, 0.14, 0.15, 0.16; 0.4),$ $(0.13, 0.14, 0.15, 0.16, 0.17; 0.7), (0.12, 0.14, 0.16, 0.18, 0.2; -0.9),$ $(0.1, 0.11, 0.12, 0.13, 0.14; -0.2), (0.14, 0.15, 0.16, 0.17, 0.18; -0.6) >$	$<(0.12, 0.13, 0.14, 0.15, 0.16; 0.1), (0.13, 0.15, 0.17, 0.19, 0.21; 0.3),$ $(0.12, 0.14, 0.16, 0.18, 0.2; 0.2), (0.11, 0.12, 0.13, 0.14, 0.15; -0.2),$ $(0.1, 0.13, 0.16, 0.19, 0.22; -0.6), (0.09, 0.1, 0.11, 0.12, 0.13; -0.5) >$	$<(0.3, 0.32, 0.34, 0.36, 0.38; 0.7), (0.19, 0.21, 0.23, 0.25, 0.27; 0.4),$ $(0.22, 0.23, 0.24, 0.25, 0.26; 0.2), (0.24, 0.25, 0.26, 0.27, 0.28; -0.8),$ $(0.17, 0.19, 0.21, 0.23, 0.25; -0.5), (0.27, 0.29, 0.31, 0.33, 0.35; -0.3) >$	2
	$<(0.12, 0.13, 0.14, 0.15, 0.16; 0.5), (0.08, 0.11, 0.14, 0.17, 0.2; 0.4),$ $(0.12, 0.14, 0.16, 0.18, 0.2; 0.2), (0.14, 0.15, 0.16, 0.17, 0.18; -0.6),$ $(0.11, 0.13, 0.15, 0.17, 0.19; -0.1), (0.08, 0.09, 0.1, 0.11, 0.12; -0.2) >$	$<(0.23, 0.24, 0.25, 0.26, 0.27; 0.7), (0.18, 0.19, 0.2, 0.21, 0.22; 0.4),$ $(0.22, 0.23, 0.24, 0.25, 0.26; 0.3), (0.14, 0.15, 0.16, 0.17, 0.18; -0.6),$ $(0.13, 0.15, 0.17, 0.19, 0.21; -0.2), (0.14, 0.16, 0.18, 0.2, 0.22; -0.3) >$	$<(0.11, 0.12, 0.13, 0.14, 0.15; 0.8), (0.09, 0.11, 0.13, 0.15, 0.17; 0.3),$ $(0.12, 0.14, 0.16, 0.18, 0.2; 0.6), (0.12, 0.13, 0.14, 0.15, 0.16; -0.3),$ $(0.15, 0.16, 0.17, 0.18, 0.19; -0.5), (0.07, 0.09, 0.11, 0.13, 0.15; -0.4) >$	3
2	$<(0.09, 0.11, 0.13, 0.15, 0.17; 0.8), (0.1, 0.12, 0.14, 0.16, 0.18; 0.2),$ $(0.12, 0.14, 0.16, 0.18, 0.2; 0.4), (0.1, 0.11, 0.12, 0.13, 0.14; -0.6),$ $(0.13, 0.14, 0.15, 0.16, 0.17; -0.3), (0.07, 0.08, 0.09, 0.1, 0.11; -0.5) >$	$<(0.21, 0.22, 0.23, 0.24, 0.25; 0.7), (0.14, 0.15, 0.16, 0.17, 0.18; 0.4),$ $(0.19, 0.2, 0.21, 0.22, 0.23; 0.6), (0.22, 0.23, 0.24, 0.25, 0.26; -0.8),$ $(0.2, 0.21, 0.22, 0.23, 0.24; -0.3), (0.15, 0.16, 0.17, 0.18, 0.19; -0.3) >$	$<(0.2, 0.22, 0.24, 0.26, 0.28; 0.2), (0.25, 0.26, 0.27, 0.28, 0.29; 0.4),$ $(0.3, 0.31, 0.32, 0.33, 0.34; 0.6), (0.22, 0.23, 0.24, 0.25, 0.26; -0.4),$ $(0.3, 0.32, 0.34, 0.36, 0.38; -0.7), (0.31, 0.32, 0.33, 0.34, 0.35; -0.5) >$	1
	$<(0.11, 0.13, 0.15, 0.17, 0.19; 0.2), (0.12, 0.14, 0.16, 0.18, 0.2; 0.4),$ $(0.07, 0.09, 0.11, 0.13, 0.15; 0.6), (0.09, 0.12, 0.15, 0.18, 0.21; -0.3),$ $(0.11, 0.12, 0.13, 0.14, 0.15; -0.6), (0.14, 0.16, 0.18, 0.2, 0.22; -0.8) >$	$<(0.1, 0.11, 0.12, 0.13, 0.14; 0.4), (0.12, 0.13, 0.14, 0.15, 0.16; 0.6),$ $(0.09, 0.1, 0.11, 0.12, 0.13; 0.8), (0.07, 0.08, 0.09, 0.1, 0.11; -0.7),$ $(0.13, 0.15, 0.17, 0.19, 0.21; -0.1), (0.12, 0.13, 0.14, 0.15, 0.16; -0.3) >$	$<(0.01, 0.02, 0.03, 0.04, 0.05; 0.6), (0.01, 0.03, 0.05, 0.07, 0.09; 0.4),$ $(0.05, 0.07, 0.09, 0.11, 0.13; 0.2), (0.06, 0.07, 0.08, 0.09, 0.1; -0.4),$ $(0.04, 0.06, 0.08, 0.1, 0.12; -0.5), (0.03, 0.05, 0.07, 0.09, 0.11; -0.7) >$	2
	$<(0.12, 0.13, 0.14, 0.15, 0.16; 0.3), (0.11, 0.13, 0.15, 0.17, 0.19; 0.7),$ $(0.15, 0.16, 0.17, 0.18, 0.19; 0.6), (0.14, 0.15, 0.16, 0.17, 0.18; -0.1),$ $(0.13, 0.15, 0.17, 0.19, 0.21; -0.6), (0.07, 0.09, 0.11, 0.13, 0.15; -0.3) >$	$<(0.12, 0.13, 0.14, 0.15, 0.160.5), (0.11, 0.13, 0.15, 0.17, 0.19; 0.3),$ $(0.09, 0.11, 0.13, 0.15, 0.17; 0.4), (0.13, 0.14, 0.15, 0.16, 0.17; -0.6),$ $(0.13, 0.15, 0.17, 0.19, 0.21; -0.4), (0.08, 0.09, 0.1, 0.11, 0.12; -0.5) >$	$<(0.06, 0.07, 0.08, 0.09, 0.1; 0.8), (0.03, 0.04, 0.05, 0.06, 0.07; 0.5),$ $(0.02, 0.04, 0.06, 0.08, 0.1; 0.4), (0.05, 0.07, 0.09, 0.11, 0.13; -0.6),$ $(0.02, 0.04, 0.06, 0.08, 0.1; -0.3), (0.02, 0.03, 0.04, 0.05, 0.06; -0.4) >$	3
3	$<(0.2, 0.22, 0.24, 0.26, 0.28; 0.6), (0.15, 0.16, 0.17, 0.18, 0.19; 0.4),$ $(0.12, 0.14, 0.16, 0.18, 0.2; 0.2), (0.13, 0.15, 0.17, 0.19, 0.21; -0.6),$ $(0.23, 0.25, 0.27, 0.29, 0.31; -0.4), (0.2, 0.21, 0.22, 0.23, 0.24; -0.3) >$	$<(0.06, 0.07, 0.08, 0.09, 0.1; 0.7), (0.01, 0.02, 0.03, 0.04, 0.05; 0.3),$ $(0.02, 0.04, 0.06, 0.08, 0.1; 0.4), (0.05, 0.06, 0.07, 0.08, 0.09; -0.6),$ $(0.05, 0.07, 0.09, 0.11, 0.13; -0.2), (0.03, 0.05, 0.07, 0.09, 0.11; -0.4) >$	$<(0.21, 0.22, 0.23, 0.24, 0.25; 0.2), (0.17, 0.19, 0.21, 0.23, 0.25; 0.5),$ $(0.16, 0.17, 0.18, 0.19, 0.2; 0.6), (0.19, 0.21, 0.23, 0.25, 0.27; -0.3),$ $(0.22, 0.23, 0.24, 0.25, 0.26; -0.6), (0.24, 0.25, 0.26, 0.27, 0.28; -0.7) >$	1
	$<(0.12, 0.13, 0.14, 0.15, 0.16; 0.5), (0.1, 0.11, 0.12, 0.13, 0.14; 0.6),$ $(0.09, 0.1, 0.11, 0.12, 0.13; 0.7), (0.07, 0.09, 0.11, 0.13, 0.15; -0.4),$ $(0.15, 0.16, 0.17, 0.18, 0.19; -0.4), (0.14, 0.16, 0.18, 0.2, 0.22; -0.1) >$	$<(0.04, 0.05, 0.06, 0.07, 0.08; 0.6), (0.03, 0.05, 0.07, 0.09, 0.11; 0.4),$ $(0.05, 0.07, 0.09, 0.11, 0.13; 0.2), (0.07, 0.09, 0.11, 0.13, 0.15; -0.3),$ $(0.01, 0.02, 0.03, 0.04, 0.05; -0.7), (0.02, 0.04, 0.06, 0.08, 0.1; -0.5) >$	$<(0.12, 0.13, 0.14, 0.15, 0.16; 0.6), (0.08, 0.1, 0.12, 0.14, 0.16; 0.4),$ $(0.1, 0.11, 0.12, 0.13, 0.14; 0.5), (0.09, 0.11, 0.13, 0.15, 0.17; -0.8),$ $(0.1, 0.11, 0.12, 0.13, 0.14; -0.6), (0.13, 0.15, 0.17, 0.19, 0.21; -0.2) >$	2
	$<(0.24, 0.25, 0.26, 0.27, 0.28; 0.7), (0.21, 0.23, 0.25, 0.27, 0.29; 0.3),$ $(0.31, 0.32, 0.33, 0.34, 0.35; 0.2), (0.14, 0.16, 0.18, 0.2, 0.22; -0.5),$ $(0.23, 0.25, 0.27, 0.29, 0.31; -0.3), (0.24, 0.25, 0.26, 0.27, 0.28; -0.2) >$	$<(0.22, 0.23, 0.24, 0.25, 0.26; 0.2), (0.21, 0.23, 0.25, 0.27, 0.29; 0.5),$ $(0.14, 0.15, 0.16, 0.17, 0.18; 0.7), (0.15, 0.16, 0.17, 0.18, 0.19; -0.3),$ $(0.18, 0.21, 0.24, 0.27, 0.3; -0.6), (0.24, 0.26, 0.28, 0.3, 0.32; -0.7) >$	$<(0.12, 0.13, 0.14, 0.15, 0.16; 0.5), (0.08, 0.1, 0.12, 0.14, 0.16; 0.6),$ $(0.1, 0.11, 0.12, 0.13, 0.14; 0.8), (0.14, 0.15, 0.16, 0.17, 0.18; -0.2),$ $(0.13, 0.15, 0.17, 0.19, 0.21; -0.4), (0.1, 0.13, 0.16, 0.19, 0.22; -0.6) >$	3
4	$<(0.04, 0.05, 0.06, 0.07, 0.08; 0.9), (0.01, 0.03, 0.05, 0.07, 0.09; 0.6),$ $(0.05, 0.07, 0.09, 0.11, 0.13; 0.3), (0.04, 0.06, 0.08, 0.1, 0.12; -0.5),$ $(0.01, 0.02, 0.03, 0.04, 0.05; -0.4), (0.03, 0.05, 0.07, 0.09, 0.11; -0.1) >$	$<(0.3, 0.32, 0.34, 0.36, 0.38; 0.5), (0.25, 0.26, 0.27, 0.28, 0.29; 0.2),$ $(0.3, 0.31, 0.32, 0.33, 0.34; 0.3), (0.23, 0.24, 0.25, 0.26, 0.27; -0.8),$ $(0.2, 0.21, 0.22, 0.23, 0.24; -0.6), (0.21, 0.23, 0.25, 0.27, 0.29; -0.5) >$	$<(0.22, 0.23, 0.24, 0.25, 0.26; 0.6), (0.2, 0.21, 0.22, 0.23, 0.24; 0.3),$ $(0.14, 0.16, 0.18, 0.2, 0.22; 0.2), (0.23, 0.24, 0.25, 0.26, 0.27; -0.3),$ $(0.15, 0.16, 0.17, 0.18, 0.19; -0.6), (0.19, 0.21, 0.23, 0.25, 0.27; -0.7) >$	1
	$<(0.21, 0.22, 0.23, 0.24, 0.25; 0.6), (0.24, 0.25, 0.26, 0.27, 0.28; 0.4),$ $(0.11, 0.12, 0.13, 0.14, 0.15; 0.5), (0.13, 0.15, 0.17, 0.19, 0.21; -0.6),$ $(0.21, 0.22, 0.23, 0.24, 0.25; -0.4), (0.16, 0.18, 0.2, 0.22, 0.24; -0.2) >$	$<(0.1, 0.11, 0.12, 0.13, 0.14; 0.7), (0.12, 0.13, 0.14, 0.15, 0.16; 0.4),$ $(0.08, 0.09, 0.1, 0.11, 0.12; 0.3), (0.07, 0.1, 0.13, 0.16, 0.19; -0.6),$ $(0.14, 0.16, 0.18, 0.2, 0.22; -0.4), (0.11, 0.12, 0.13, 0.14, 0.15; -0.3) >$	$<(0.02, 0.03, 0.04, 0.05, 0.06; 0.4), (0.04, 0.05, 0.06, 0.07, 0.08; 0.3),$ $(0.02, 0.04, 0.06, 0.08, 0.1; 0.6), (0.05, 0.06, 0.07, 0.08, 0.09; -0.7),$ $(0.04, 0.06, 0.08, 0.1, 0.12; -0.5), (0.05, 0.07, 0.09, 0.11, 0.13; -0.8) >$	2
	$<(0.1, 0.11, 0.12, 0.13, 0.14; 0.3), (0.12, 0.13, 0.14, 0.15, 0.16; 0.5),$ $(0.09, 0.11, 0.13, 0.15, 0.17; 0.7), (0.13, 0.14, 0.15, 0.16, 0.17; -0.4),$ $(0.12, 0.14, 0.16, 0.18, 0.2; -0.7), (0.1, 0.13, 0.16, 0.19, 0.22; -0.3) >$	$<(0.23, 0.25, 0.27, 0.29, 0.31; 0.6), (0.21, 0.22, 0.23, 0.24, 0.25; 0.4),$ $(0.32, 0.33, 0.34, 0.35, 0.36; 0.2), (0.26, 0.27, 0.28, 0.29, 0.3; -0.6),$ $(0.31, 0.33, 0.35, 0.37, 0.39; -0.4), (0.15, 0.16, 0.17, 0.18, 0.19; -0.3) >$	$<(0.01, 0.03, 0.05, 0.07, 0.09; 0.1), (0.05, 0.06, 0.07, 0.08, 0.09; 0.3),$ $(0.01, 0.02, 0.03, 0.04, 0.05; 0.6), (0.03, 0.05, 0.07, 0.09, 0.11; -0.8),$ $(0.06, 0.07, 0.08, 0.09, 0.1; -0.4), (0.02, 0.04, 0.06, 0.08, 0.1; -0.1) >$	3
5	$<(0.1, 0.11, 0.12, 0.13, 0.14; 0.2), (0.15, 0.16, 0.17, 0.18, 0.19; 0.5),$ $(0.12, 0.14, 0.16, 0.18, 0.2; 0.7), (0.11, 0.13, 0.15, 0.17, 0.19; -0.2),$ $(0.14, 0.15, 0.16, 0.17, 0.18; -0.4), (0.09, 0.11, 0.13, 0.15, 0.17; -0.6) >$	$<(0.15, 0.16, 0.17, 0.18, 0.19; 0.2), (0.13, 0.14, 0.15, 0.16, 0.17; 0.5),$ $(0.09, 0.11, 0.13, 0.15, 0.17; 0.6), (0.12, 0.13, 0.14, 0.15, 0.16; -0.3),$ $(0.11, 0.12, 0.13, 0.14, 0.15; -0.4), (0.11, 0.13, 0.15, 0.17, 0.19; -0.6) >$	$<(0.21, 0.22, 0.23, 0.24, 0.25; 0.4), (0.14, 0.16, 0.18, 0.2, 0.22; 0.5),$ $(0.23, 0.24, 0.25, 0.26, 0.27; 0.6), (0.16, 0.17, 0.18, 0.19, 0.2; -0.6),$ $(0.18, 0.2, 0.22, 0.24, 0.26; -0.4), (0.21, 0.22, 0.23, 0.24, 0.25; -0.5) >$	1
	$<(0.03, 0.05, 0.07, 0.09, 0.11; 0.4), (0.02, 0.03, 0.04, 0.05, 0.06; 0.6),$ $(0.04, 0.06, 0.08, 0.1, 0.12; 0.2), (0.02, 0.04, 0.06, 0.08, 0.1; -0.6),$ $(0.06, 0.07, 0.08, 0.09, 0.1; -0.3), (0.04, 0.06, 0.08, 0.1, 0.12; -0.7) >$	$<(0.08, 0.1, 0.12, 0.14, 0.16; 0.5), (0.1, 0.11, 0.12, 0.13, 0.14; 0.4),$ $(0.11, 0.12, 0.13, 0.14, 0.15; 0.2), (0.1, 0.12, 0.14, 0.16, 0.18; -0.6),$ $(0.13, 0.14, 0.15, 0.16, 0.17; -0.4), (0.1, 0.13, 0.16, 0.19, 0.22; -0.2) >$	$<(0.03, 0.05, 0.07, 0.09, 0.11; 0.6), (0.01, 0.02, 0.03, 0.04, 0.05; 0.3),$ $(0.05, 0.06, 0.07, 0.08, 0.09; 0.5), (0.05, 0.07, 0.09, 0.11, 0.13; -0.8),$ $(0.05, 0.06, 0.07, 0.08, 0.09; -0.3), (0.07, 0.08, 0.09, 0.1, 0.11; -0.7) >$	2
	$<(0.24, 0.25, 0.26, 0.27, 0.28; 0.6), (0.32, 0.33, 0.34, 0.35, 0.36; 0.4),$ $(0.17, 0.18, 0.19, 0.2, 0.21; 0.3), (0.21, 0.22, 0.23, 0.24, 0.25; -0.7),$ $(0.31, 0.32, 0.33, 0.34, 0.35; -0.2), (0.24, 0.25, 0.26, 0.27, 0.28; -0.3) >$	$<(0.2, 0.22, 0.24, 0.26, 0.28; 0.1), (0.14, 0.16, 0.18, 0.2, 0.22; 0.4),$ $(0.13, 0.14, 0.15, 0.16, 0.17; 0.7), (0.21, 0.22, 0.23, 0.24, 0.25; -0.8),$ $(0.12, 0.14, 0.16, 0.18, 0.2; -0.3), (0.25, 0.26, 0.27, 0.28, 0.29; -0.5) >$	$<(0.1, 0.11, 0.12, 0.13, 0.14; 0.6), (0.14, 0.15, 0.16, 0.17, 0.18; 0.3),$ $(0.07, 0.09, 0.11, 0.13, 0.15; 0.6), (0.15, 0.16, 0.17, 0.18, 0.19; -0.8),$ $(0.11, 0.12, 0.13, 0.14, 0.15; -0.4), (0.09, 0.1, 0.11, 0.12, 0.13; -0.2) >$	3