LOW CASE

	Mine Production of cobalt	Refined Production of cobalt	Direct applications	End manufacturing	Recycling	Total
Value addition						
Direct effect	=IFERROR(Roskill_IOModel!$D83,0)	=IFERROR(Roskill_IOModel!$F83,0)	=SUM(Roskill_IOModel!$J83:$Y83)	=SUM(Roskill_IOModel!$AA83:$AQ83)	=Roskill_IOModel!$AS83	=SUM(B4:F4)
First-round requirements	=IFERROR(Roskill_IOModel!$D84,0)	=IFERROR(Roskill_IOModel!$F84,0)	=SUM(Roskill_IOModel!$J84:$Y84)	=SUM(Roskill_IOModel!$AA84:$AQ84)	=Roskill_IOModel!$AS84	=SUM(B5:F5)
Industrial support	=IFERROR(Roskill_IOModel!$D85,0)	=IFERROR(Roskill_IOModel!$F85,0)	=SUM(Roskill_IOModel!$J85:$Y85)	=SUM(Roskill_IOModel!$AA85:$AQ85)	=Roskill_IOModel!$AS85	=SUM(B6:F6)
Income effect	=IFERROR(Roskill_IOModel!$D86,0)	=IFERROR(Roskill_IOModel!$F86,0)	=SUM(Roskill_IOModel!$J86:$Y86)	=SUM(Roskill_IOModel!$AA86:$AQ86)	=Roskill_IOModel!$AS86	=SUM(B7:F7)
Total	=SUM(B4:B7)	=SUM(C4:C7)	=SUM(D4:D7)	=SUM(E4:E7)	=SUM(F4:F7)	=SUM(B8:F8)
Labour income						
Direct effect	=IFERROR(Roskill_IOModel!$D77,0)	=IFERROR(Roskill_IOModel!$F77,0)	=SUM(Roskill_IOModel!$J77:$Y77)	=SUM(Roskill_IOModel!$AA77:$AQ77)	=Roskill_IOModel!$AS77	=SUM(B11:F11)
First-round requirements	=IFERROR(Roskill_IOModel!$D78,0)	=IFERROR(Roskill_IOModel!$F78,0)	=SUM(Roskill_IOModel!$J78:$Y78)	=SUM(Roskill_IOModel!$AA78:$AQ78)	=Roskill_IOModel!$AS78	=SUM(B12:F12)
Industrial support	=IFERROR(Roskill_IOModel!$D79,0)	=IFERROR(Roskill_IOModel!$F79,0)	=SUM(Roskill_IOModel!$J79:$Y79)	=SUM(Roskill_IOModel!$AA79:$AQ79)	=Roskill_IOModel!$AS79	=SUM(B13:F13)
Income effect	=IFERROR(Roskill_IOModel!$D80,0)	=IFERROR(Roskill_IOModel!$F80,0)	=SUM(Roskill_IOModel!$J80:$Y80)	=SUM(Roskill_IOModel!$AA80:$AQ80)	=Roskill_IOModel!$AS80	=SUM(B14:F14)
Total	=SUM(B11:B14)	=SUM(C11:C14)	=SUM(D11:D14)	=SUM(E11:E14)	=SUM(F11:F14)	=SUM(G11:G14)
Employees						
Direct effect	=IFERROR(Roskill_IOModel!$D89,0)	=IFERROR(Roskill_IOModel!$F89,0)	=SUM(Roskill_IOModel!$J89:$Y89)	=SUM(Roskill_IOModel!$AA89:$AQ89)	=Roskill_IOModel!$AS89	=SUM(B18:F18)
First-round requirements	=IFERROR(Roskill_IOModel!$D90,0)	=IFERROR(Roskill_IOModel!$F90,0)	=SUM(Roskill_IOModel!$J90:$Y90)	=SUM(Roskill_IOModel!$AA90:$AQ90)	=Roskill_IOModel!$AS90	=SUM(B19:F19)
Industrial support	=IFERROR(Roskill_IOModel!$D91,0)	=IFERROR(Roskill_IOModel!$F91,0)	=SUM(Roskill_IOModel!$J91:$Y91)	=SUM(Roskill_IOModel!$AA91:$AQ91)	=Roskill_IOModel!$AS91	=SUM(B20:F20)
Income effect	=IFERROR(Roskill_IOModel!$D92,0)	=IFERROR(Roskill_IOModel!$F92,0)	=SUM(Roskill_IOModel!$J92:$Y92)	=SUM(Roskill_IOModel!$AA92:$AQ92)	=Roskill_IOModel!$AS92	=SUM(B21:F21)
Total	=SUM(B18:B21)	=SUM(C18:C21)	=SUM(D18:D21)	=SUM(E18:E21)	=SUM(F18:F21)	=SUM(G18:G21)
Tax contribution						
Direct effect	=IFERROR(Roskill_IOModel!$D95,0)	=IFERROR(Roskill_IOModel!$F95,0)	=SUM(Roskill_IOModel!$J95:$Y95)	=SUM(Roskill_IOModel!$AA95:$AQ95)	=Roskill_IOModel!$AS95	=SUM(B25:F25)
First-round requirements	=IFERROR(Roskill_IOModel!$D96,0)	=IFERROR(Roskill_IOModel!$F96,0)	=SUM(Roskill_IOModel!$J96:$Y96)	=SUM(Roskill_IOModel!$AA96:$AQ96)	=Roskill_IOModel!$AS96	=SUM(B26:F26)
Industrial support	=IFERROR(Roskill_IOModel!$D97,0)	=IFERROR(Roskill_IOModel!$F97,0)	=SUM(Roskill_IOModel!$J97:$Y97)	=SUM(Roskill_IOModel!$AA97:$AQ97)	=Roskill_IOModel!$AS97	=SUM(B27:F27)
Income effect	=IFERROR(Roskill_IOModel!$D98,0)	=IFERROR(Roskill_IOModel!$F98,0)	=SUM(Roskill_IOModel!$J98:$Y98)	=SUM(Roskill_IOModel!$AA98:$AQ98)	=Roskill_IOModel!$AS98	=SUM(B28:F28)
Total	=SUM(B25:B28)	=SUM(C25:C28)	=SUM(D25:D28)	=SUM(E25:E28)	=SUM(F25:F28)	=SUM(G25:G28)
Output						
Direct effect	=IFERROR(Roskill_IOModel!$D70,0)	=IFERROR(Roskill_IOModel!$F70,0)	=SUM(Roskill_IOModel!$J70:$Y70)	=SUM(Roskill_IOModel!$AA70:$AQ70)	=Roskill_IOModel!$AS70	=SUM(B32:F32)
First-round requirements	=IFERROR(Roskill_IOModel!$D71,0)	=IFERROR(Roskill_IOModel!$F71,0)	=SUM(Roskill_IOModel!$J71:$Y71)	=SUM(Roskill_IOModel!$AA71:$AQ71)	=Roskill_IOModel!$AS71	=SUM(B33:F33)
Industrial support	=IFERROR(Roskill_IOModel!$D72,0)	=IFERROR(Roskill_IOModel!$F72,0)	=SUM(Roskill_IOModel!$J72:$Y72)	=SUM(Roskill_IOModel!$AA72:$AQ72)	=Roskill_IOModel!$AS72	=SUM(B34:F34)
Income effect	=IFERROR(Roskill_IOModel!$D73,0)	=IFERROR(Roskill_IOModel!$F73,0)	=SUM(Roskill_IOModel!$J73:$Y73)	=SUM(Roskill_IOModel!$AA73:$AQ73)	=Roskill_IOModel!$AS73	=SUM(B35:F35)
Total	=SUM(B32:B35)	=SUM(C32:C35)	=SUM(D32:D35)	=SUM(E32:E35)	=SUM(F32:F35)	=SUM(G32:G35)

BASE CASE

	Mine Production of cobalt	Refined Production of cobalt	Direct applications	End manufacturing	Recycling	Total
Value addition						
Direct effect	=IFERROR(Roskill_IOModel!$D117,0)	=IFERROR(Roskill_IOModel!$F117,0)	=SUM(Roskill_IOModel!$J117:$Y117)	=SUM(Roskill_IOModel!$AA117:$AQ117)	=Roskill_IOModel!$AS117	=SUM(H4:L4)
First-round requirements	=IFERROR(Roskill_IOModel!$D118,0)	=IFERROR(Roskill_IOModel!$F118,0)	=SUM(Roskill_IOModel!$J118:$Y118)	=SUM(Roskill_IOModel!$AA118:$AQ118)	=Roskill_IOModel!$AS118	=SUM(H5:L5)
Industrial support	=IFERROR(Roskill_IOModel!$D119,0)	=IFERROR(Roskill_IOModel!$F119,0)	=SUM(Roskill_IOModel!$J119:$Y119)	=SUM(Roskill_IOModel!$AA119:$AQ119)	=Roskill_IOModel!$AS119	=SUM(H6:L6)
Income effect	=IFERROR(Roskill_IOModel!$D120,0)	=IFERROR(Roskill_IOModel!$F120,0)	=SUM(Roskill_IOModel!$J120:$Y120)	=SUM(Roskill_IOModel!$AA120:$AQ120)	=Roskill_IOModel!$AS120	=SUM(H7:L7)
Total	=SUM(H4:H7)	=SUM(I4:I7)	=SUM(J4:J7)	=SUM(K4:K7)	=SUM(L4:L7)	=SUM(H8:L8)
Labour income						
Direct effect	=IFERROR(Roskill_IOModel!$D111,0)	=IFERROR(Roskill_IOModel!$F111,0)	=SUM(Roskill_IOModel!$J111:$Y111)	=SUM(Roskill_IOModel!$AA111:$AQ111)	=Roskill_IOModel!$AS111	=SUM(H11:L11)
First-round requirements	=IFERROR(Roskill_IOModel!$D112,0)	=IFERROR(Roskill_IOModel!$F112,0)	=SUM(Roskill_IOModel!$J112:$Y112)	=SUM(Roskill_IOModel!$AA112:$AQ112)	=Roskill_IOModel!$AS112	=SUM(H12:L12)
Industrial support	=IFERROR(Roskill_IOModel!$D113,0)	=IFERROR(Roskill_IOModel!$F113,0)	=SUM(Roskill_IOModel!$J113:$Y113)	=SUM(Roskill_IOModel!$AA113:$AQ113)	=Roskill_IOModel!$AS113	=SUM(H13:L13)
Income effect	=IFERROR(Roskill_IOModel!$D114,0)	=IFERROR(Roskill_IOModel!$F114,0)	=SUM(Roskill_IOModel!$J114:$Y114)	=SUM(Roskill_IOModel!$AA114:$AQ114)	=Roskill_IOModel!$AS114	=SUM(H14:L14)
Total	=SUM(H11:H14)	=SUM(I11:I14)	=SUM(J11:J14)	=SUM(K11:K14)	=SUM(L11:L14)	=SUM(M11:M14)
Employees						
Direct effect	=IFERROR(Roskill_IOModel!$D123,0)	=IFERROR(Roskill_IOModel!$F123,0)	=SUM(Roskill_IOModel!$J123:$Y123)	=SUM(Roskill_IOModel!$AA123:$AQ123)	=Roskill_IOModel!$AS123	=SUM(H18:L18)
First-round requirements	=IFERROR(Roskill_IOModel!$D124,0)	=IFERROR(Roskill_IOModel!$F124,0)	=SUM(Roskill_IOModel!$J124:$Y124)	=SUM(Roskill_IOModel!$AA124:$AQ124)	=Roskill_IOModel!$AS124	=SUM(H19:L19)
Industrial support	=IFERROR(Roskill_IOModel!$D125,0)	=IFERROR(Roskill_IOModel!$F125,0)	=SUM(Roskill_IOModel!$J125:$Y125)	=SUM(Roskill_IOModel!$AA125:$AQ125)	=Roskill_IOModel!$AS125	=SUM(H20:L20)
Income effect	=IFERROR(Roskill_IOModel!$D126,0)	=IFERROR(Roskill_IOModel!$F126,0)	=SUM(Roskill_IOModel!$J126:$Y126)	=SUM(Roskill_IOModel!$AA126:$AQ126)	=Roskill_IOModel!$AS126	=SUM(H21:L21)
Total	=SUM(H18:H21)	=SUM(I18:I21)	=SUM(J18:J21)	=SUM(K18:K21)	=SUM(L18:L21)	=SUM(M18:M21)
Tax contribution						
Direct effect	=IFERROR(Roskill_IOModel!$D129,0)	=IFERROR(Roskill_IOModel!$F129,0)	=SUM(Roskill_IOModel!$J129:$Y129)	=SUM(Roskill_IOModel!$AA129:$AQ129)	=Roskill_IOModel!$AS129	=SUM(H25:L25)
First-round requirements	=IFERROR(Roskill_IOModel!$D130,0)	=IFERROR(Roskill_IOModel!$F130,0)	=SUM(Roskill_IOModel!$J130:$Y130)	=SUM(Roskill_IOModel!$AA130:$AQ130)	=Roskill_IOModel!$AS130	=SUM(H26:L26)
Industrial support	=IFERROR(Roskill_IOModel!$D131,0)	=IFERROR(Roskill_IOModel!$F131,0)	=SUM(Roskill_IOModel!$J131:$Y131)	=SUM(Roskill_IOModel!$AA131:$AQ131)	=Roskill_IOModel!$AS131	=SUM(H27:L27)
Income effect	=IFERROR(Roskill_IOModel!$D132,0)	=IFERROR(Roskill_IOModel!$F132,0)	=SUM(Roskill_IOModel!$J132:$Y132)	=SUM(Roskill_IOModel!$AA132:$AQ132)	=Roskill_IOModel!$AS132	=SUM(H28:L28)
Total	=SUM(H25:H28)	=SUM(I25:I28)	=SUM(J25:J28)	=SUM(K25:K28)	=SUM(L25:L28)	=SUM(M25:M28)
Output						
Direct effect	=IFERROR(Roskill_IOModel!$D104,0)	=IFERROR(Roskill_IOModel!$F104,0)	=SUM(Roskill_IOModel!$J104:$Y104)	=SUM(Roskill_IOModel!$AA104:$AQ104)	=Roskill_IOModel!$AS104	=SUM(H32:L32)
First-round requirements	=IFERROR(Roskill_IOModel!$D105,0)	=IFERROR(Roskill_IOModel!$F105,0)	=SUM(Roskill_IOModel!$J105:$Y105)	=SUM(Roskill_IOModel!$AA105:$AQ105)	=Roskill_IOModel!$AS105	=SUM(H33:L33)
Industrial support	=IFERROR(Roskill_IOModel!$D106,0)	=IFERROR(Roskill_IOModel!$F106,0)	=SUM(Roskill_IOModel!$J106:$Y106)	=SUM(Roskill_IOModel!$AA106:$AQ106)	=Roskill_IOModel!$AS106	=SUM(H34:L34)
Income effect	=IFERROR(Roskill_IOModel!$D107,0)	=IFERROR(Roskill_IOModel!$F107,0)	=SUM(Roskill_IOModel!$J107:$Y107)	=SUM(Roskill_IOModel!$AA107:$AQ107)	=Roskill_IOModel!$AS107	=SUM(H35:L35)
Total	=SUM(H32:H35)	=SUM(I32:I35)	=SUM(J32:J35)	=SUM(K32:K35)	=SUM(L32:L35)	=SUM(M32:M35)

HIGH CASE

	Mine Production of cobalt	Refined Production of cobalt	Direct applications	End manufacturing	Recycling	Total
Value addition						
Direct effect	=IFERROR(Roskill_IOModel!$D151,0)	=IFERROR(Roskill_IOModel!$F151,0)	=SUM(Roskill_IOModel!$J151:$Y151)	=SUM(Roskill_IOModel!$AA151:$AQ151)	=Roskill_IOModel!$AS151	=SUM(N4:R4)
First-round requirements	=IFERROR(Roskill_IOModel!$D152,0)	=IFERROR(Roskill_IOModel!$F152,0)	=SUM(Roskill_IOModel!$J152:$Y152)	=SUM(Roskill_IOModel!$AA152:$AQ152)	=Roskill_IOModel!$AS152	=SUM(N5:R5)
Industrial support	=IFERROR(Roskill_IOModel!$D153,0)	=IFERROR(Roskill_IOModel!$F153,0)	=SUM(Roskill_IOModel!$J153:$Y153)	=SUM(Roskill_IOModel!$AA153:$AQ153)	=Roskill_IOModel!$AS153	=SUM(N6:R6)
Income effect	=IFERROR(Roskill_IOModel!$D154,0)	=IFERROR(Roskill_IOModel!$F154,0)	=SUM(Roskill_IOModel!$J154:$Y154)	=SUM(Roskill_IOModel!$AA154:$AQ154)	=Roskill_IOModel!$AS154	=SUM(N7:R7)
Total	=SUM(N4:N7)	=SUM(O4:O7)	=SUM(P4:P7)	=SUM(Q4:Q7)	=SUM(R4:R7)	=SUM(N8:R8)
Labour income						
Direct effect	=IFERROR(Roskill_IOModel!$D145,0)	=IFERROR(Roskill_IOModel!$F145,0)	=SUM(Roskill_IOModel!$J145:$Y145)	=SUM(Roskill_IOModel!$AA145:$AQ145)	=Roskill_IOModel!$AS145	=SUM(N11:R11)
First-round requirements	=IFERROR(Roskill_IOModel!$D146,0)	=IFERROR(Roskill_IOModel!$F146,0)	=SUM(Roskill_IOModel!$J146:$Y146)	=SUM(Roskill_IOModel!$AA146:$AQ146)	=Roskill_IOModel!$AS146	=SUM(N12:R12)
Industrial support	=IFERROR(Roskill_IOModel!$D147,0)	=IFERROR(Roskill_IOModel!$F147,0)	=SUM(Roskill_IOModel!$J147:$Y147)	=SUM(Roskill_IOModel!$AA147:$AQ147)	=Roskill_IOModel!$AS147	=SUM(N13:R13)
Income effect	=IFERROR(Roskill_IOModel!$D148,0)	=IFERROR(Roskill_IOModel!$F148,0)	=SUM(Roskill_IOModel!$J148:$Y148)	=SUM(Roskill_IOModel!$AA148:$AQ148)	=Roskill_IOModel!$AS148	=SUM(N14:R14)
Total	=SUM(N11:N14)	=SUM(O11:O14)	=SUM(P11:P14)	=SUM(Q11:Q14)	=SUM(R11:R14)	=SUM(S11:S14)
Employees						
Direct effect	=IFERROR(Roskill_IOModel!$D157,0)	=IFERROR(Roskill_IOModel!$F157,0)	=SUM(Roskill_IOModel!$J157:$Y157)	=SUM(Roskill_IOModel!$AA157:$AQ157)	=Roskill_IOModel!$AS157	=SUM(N18:R18)
First-round requirements	=IFERROR(Roskill_IOModel!$D158,0)	=IFERROR(Roskill_IOModel!$F158,0)	=SUM(Roskill_IOModel!$J158:$Y158)	=SUM(Roskill_IOModel!$AA158:$AQ158)	=Roskill_IOModel!$AS158	=SUM(N19:R19)
Industrial support	=IFERROR(Roskill_IOModel!$D159,0)	=IFERROR(Roskill_IOModel!$F159,0)	=SUM(Roskill_IOModel!$J159:$Y159)	=SUM(Roskill_IOModel!$AA159:$AQ159)	=Roskill_IOModel!$AS159	=SUM(N20:R20)
Income effect	=IFERROR(Roskill_IOModel!$D160,0)	=IFERROR(Roskill_IOModel!$F160,0)	=SUM(Roskill_IOModel!$J160:$Y160)	=SUM(Roskill_IOModel!$AA160:$AQ160)	=Roskill_IOModel!$AS160	=SUM(N21:R21)
Total	=SUM(N18:N21)	=SUM(O18:O21)	=SUM(P18:P21)	=SUM(Q18:Q21)	=SUM(R18:R21)	=SUM(S18:S21)
Tax contribution						
Direct effect	=IFERROR(Roskill_IOModel!$D163,0)	=IFERROR(Roskill_IOModel!$F163,0)	=SUM(Roskill_IOModel!$J163:$Y163)	=SUM(Roskill_IOModel!$AA163:$AQ163)	=Roskill_IOModel!$AS163	=SUM(N25:R25)
First-round requirements	=IFERROR(Roskill_IOModel!$D164,0)	=IFERROR(Roskill_IOModel!$F164,0)	=SUM(Roskill_IOModel!$J164:$Y164)	=SUM(Roskill_IOModel!$AA164:$AQ164)	=Roskill_IOModel!$AS164	=SUM(N26:R26)
Industrial support	=IFERROR(Roskill_IOModel!$D165,0)	=IFERROR(Roskill_IOModel!$F165,0)	=SUM(Roskill_IOModel!$J165:$Y165)	=SUM(Roskill_IOModel!$AA165:$AQ165)	=Roskill_IOModel!$AS165	=SUM(N27:R27)
Income effect	=IFERROR(Roskill_IOModel!$D166,0)	=IFERROR(Roskill_IOModel!$F166,0)	=SUM(Roskill_IOModel!$J166:$Y166)	=SUM(Roskill_IOModel!$AA166:$AQ166)	=Roskill_IOModel!$AS166	=SUM(N28:R28)
Total	=SUM(N25:N28)	=SUM(O25:O28)	=SUM(P25:P28)	=SUM(Q25:Q28)	=SUM(R25:R28)	=SUM(S25:S28)
Output						
Direct effect	=IFERROR(Roskill_IOModel!$D138,0)	=IFERROR(Roskill_IOModel!$F138,0)	=SUM(Roskill_IOModel!$J138:$Y138)	=SUM(Roskill_IOModel!$AA138:$AQ138)	=Roskill_IOModel!$AS138	=SUM(N32:R32)
First-round requirements	=IFERROR(Roskill_IOModel!$D139,0)	=IFERROR(Roskill_IOModel!$F139,0)	=SUM(Roskill_IOModel!$J139:$Y139)	=SUM(Roskill_IOModel!$AA139:$AQ139)	=Roskill_IOModel!$AS139	=SUM(N33:R33)
Industrial support	=IFERROR(Roskill_IOModel!$D140,0)	=IFERROR(Roskill_IOModel!$F140,0)	=SUM(Roskill_IOModel!$J140:$Y140)	=SUM(Roskill_IOModel!$AA140:$AQ140)	=Roskill_IOModel!$AS140	=SUM(N34:R34)
Income effect	=IFERROR(Roskill_IOModel!$D141,0)	=IFERROR(Roskill_IOModel!$F141,0)	=SUM(Roskill_IOModel!$J141:$Y141)	=SUM(Roskill_IOModel!$AA141:$AQ141)	=Roskill_IOModel!$AS141	=SUM(N35:R35)
Total	=SUM(N32:N35)	=SUM(O32:O35)	=SUM(P32:P35)	=SUM(Q32:Q35)	=SUM(R32:R35)	=SUM(S32:S35)

Summary table

	Mine production	Refined production	Direct applications	End manufacturing	Recycling
LOW – Value of cobalt	=Roskill_IOModel!D25	=Roskill_IOModel!F25	=SUM(Roskill_IOModel!J25:Y25)	=SUM(Roskill_IOModel!AA25:AQ25)	=Roskill_IOModel!AS25
BASE – Value of cobalt	=Roskill_IOModel!D32	=Roskill_IOModel!F32	=SUM(Roskill_IOModel!J32:Y32)	=SUM(Roskill_IOModel!AA32:AQ32)	=Roskill_IOModel!AS32
HIGH – Value of cobalt	=Roskill_IOModel!D39	=Roskill_IOModel!F39	=SUM(Roskill_IOModel!J39:Y39)	=SUM(Roskill_IOModel!AA39:AQ39)	=Roskill_IOModel!AS39
Volumes of cobalt	=IF(CO_Region="GLOBAL",Co_MSR!$AQ$2,Co_MSR!$AG$1)*1000/(Period_To-Period_From+1)	=IF(CO_Region="GLOBAL",Co_MSR!$AG$4,Co_MSR!$AG$1)*1000/(Period_To-Period_From+1)	=SUM('Footprint - Sectoral analysis'!KK31:KK50)	=SUM('Footprint - Sectoral analysis'!KK53:KK73)	='Footprint - Sectoral analysis'!KK76

Chart 1 (bar chart, y-axis 0 – 300,000): Mine production, Refined production, Direct applications, End manufacturing, Recycling

Chart 2 (bar chart, y-axis $0 – $25,000): Mine production, Refined production, Direct applications, End manufacturing, Recycling