

## Qualitative LCA Importance Weights

Score	Definition for Top-Level LCA Phases
0.00	i requires trivial resource comparing to j
0.25	i is less resource-demanding than j
0.50	i and j require similar resource
0.75	i needs more resource than j
1.00	i resource requirement outshadows j

Top-level LCA Phases  (Assume linear EOL)		j							Summed Weights	Importance Weights
		1. Component Supply	2. Product Integration	3. Product Installation	4. Product Operation	5. Product Dismantling	6. Product End-of-Life			
i	1. Component Supply	0.50	0.50	1.00	0.25	1.00	0.75		1.360	22.7%
	2. Product Integration	0.50	0.50	0.75	0.25	0.75	0.75		1.249	20.8%
	3. Product Installation	0.00	0.25	0.50	0.00	0.75	0.25		0.447	7.4%
	4. Product Operation	0.75	0.75	1.00	0.50	1.00	1.00		1.907	31.8%
	5. Product Dismantling	0.00	0.25	0.25	0.00	0.50	0.25		0.336	5.6%
	6. Product End-of-Life	0.25	0.25	0.75	0.00	0.75	0.50		0.702	11.7%

Score	Definition for individual LCA steps
0.00	j is primary and is not affected by i
0.25	j is primary but may be affected by i
0.50	i and j are equivalent and mutual/independent
0.75	i is primary but may be affected by j
1.00	i is primary and not affected by j

		j								
1. Component Supply		Material Transport	Storage Impacts	Production Complexity	Production Needs	Production Efficiency	Component Quality	Corporate Ethics	Summed Weights	Importance Weights
i	Material Transport	0.50	0.50	0.00	0.25	0.25	0.25	0.75	0.630	9.0%
	Storage Impacts	0.50	0.50	0.00	0.25	0.25	0.25	0.75	0.630	9.0%
	Production Complexity	1.00	1.00	0.50	0.75	0.50	0.75	0.75	1.562	22.3%
	Production Needs	0.75	0.75	0.25	0.50	0.50	0.50	0.75	1.141	16.3%
	Production Efficiency	0.75	0.75	0.50	0.50	0.50	0.50	0.75	1.284	18.3%
	Component Quality	0.75	0.75	0.25	0.50	0.50	0.50	0.75	1.141	16.3%
	Corporate Ethics	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.612	8.7%

4. Product Operation	j					Summed Weights	Importance Weights
	Operational Needs	Maintenance Complexity	Maintenance Needs	Maintenance Efficiency	Corporate Ethics		
i	Operational Needs	0.50	0.75	0.75	0.75	0.75	29.0%
	Maintenance Complexity	0.25	0.50	0.50	0.50	0.75	19.6%
	Maintenance Needs	0.25	0.50	0.50	0.50	0.75	19.6%
	Maintenance Efficiency	0.25	0.50	0.50	0.50	0.75	19.6%
	Corporate Ethics	0.25	0.25	0.25	0.25	0.50	12.2%

		j							Summed Weights	Importance Weights
		Component Transport	Storage Impacts	Integration Complexity	Integration Needs	Integration Efficiency	Product Quality	Corporate Ethics		
2. Product Integration										
i	Component Transport	0.50	0.50	0.00	0.25	0.25	0.25	0.75	0.632	9.0%
	Storage Impacts	0.50	0.50	0.00	0.25	0.25	0.25	0.75	0.632	9.0%
	Integration Complexity	1.00	1.00	0.50	0.75	0.50	0.75	0.75	1.544	22.1%
	Integration Needs	0.75	0.75	0.25	0.50	0.50	0.50	0.75	1.130	16.1%
	Integration Efficiency	0.75	0.75	0.50	0.50	0.50	0.50	0.50	1.217	17.4%
	Product Quality	0.75	0.75	0.25	0.50	0.50	0.50	0.50	1.074	15.3%
	Corporate Ethics	0.25	0.25	0.25	0.25	0.50	0.50	0.50	0.769	11.0%

5. Product Dismantling	j					Summed Weights	Importance Weights
	Removal Complexity	Removal Needs	Storage Impacts	Post-Removal Impacts	Corporate Ethics		
i	Removal Complexity	0.50	0.75	1.00	0.25	0.75	26.0%
	Removal Needs	0.25	0.50	1.00	0.25	0.75	20.9%
	Storage Impacts	0.00	0.00	0.50	0.00	0.75	7.0%
	Post-Removal Impacts	0.75	0.75	1.00	0.50	0.75	32.9%
	Corporate Ethics	0.25	0.25	0.25	0.25	0.50	13.3%

		j							Summed Weights	Importance Weights
		Product Transport	Storage Impacts	Installation Complexity	Installation Needs	Installation Efficiency	Installation Quality	Corporate Ethics		
3. Product Installation										
i	Product Transport	0.50	0.50	0.00	0.25	0.25	0.25	0.75	0.630	9.0%
	Storage Impacts	0.50	0.50	0.00	0.25	0.25	0.25	0.75	0.630	9.0%
	Installation Complexity	1.00	1.00	0.50	0.75	0.50	0.75	0.75	1.562	22.3%
	Installation Needs	0.75	0.75	0.25	0.50	0.50	0.50	0.75	1.141	16.3%
	Installation Efficiency	0.75	0.75	0.50	0.50	0.50	0.50	0.75	1.284	18.3%
	Installation Quality	0.75	0.75	0.25	0.50	0.50	0.50	0.75	1.141	16.3%
	Corporate Ethics	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.612	8.7%

6. Product End-of-Life	j					Summed Weights	Importance Weights
	Phasing-Out Transport	End-of-Life Complexity	End-of-Life Needs	End-of-Life Impacts	Corporate Ethics		
i	Phasing-Out Transport	0.50	0.25	0.25	0.25	0.75	15.5%
	End-of-Life Complexity	0.75	0.50	0.75	0.25	0.75	23.6%
	End-of-Life Needs	0.75	0.25	0.50	0.25	0.75	19.1%
	End-of-Life Impacts	0.75	0.75	0.75	0.50	0.75	29.5%
	Corporate Ethics	0.25	0.25	0.25	0.25	0.50	12.4%