

# Sustainability in Numbers

Delta Electronics (Thailand) Public Company Limited

Updated: July 2021

# Environmental Performance

Indicators	Material Aspects	Coverage			Unit	2014	2015	2016	2017	2018	2019	2020
		TH	SK	IN								
<b>GRI 302-1</b>	<b>Energy consumption within the organization</b>											
(1+2+3)	<b>Total energy consumption within the organization</b>	•	•	•	GJ	262,891.09	280,453.81	290,372.52	296,756.25	304,727.97	300,589.09	348,413.49
					MWh	73,025.30	77,903.84	80,659.03	82,432.29	84,646.66	83,496.97	96,781.52
1	<b>Total fuel consumption within the organization</b>	•	•	•	GJ	9,101.66	9,542.80	10,355.01	12,117.07	11,537.13	11,258.97	11,174.20
					MWh	2,528.24	2,650.78	2,876.39	3,365.85	3,204.76	3,127.49	3,103.95
	- Gasoline	•	•	•	GJ	97.44	129.26	67.98	200.63	170.94	142.39	214.28
	- Diesel	•	•	•	GJ	3,772.95	2,728.94	2,800.48	4,263.82	4,254.61	3,766.02	3,606.35
	- LPG	•	•	•	GJ	6.17	3.69	6.02	5.23	-	4.43	4.44
- Natural Gas	•	•	•	GJ	5,225.10	6,680.91	7,480.53	7,647.40	7,111.58	7,346.12	7,349.14	
2	<b>Electricity and steam purchased for consumption</b>	•	•	•	GJ	253,564.07	270,586.71	278,939.95	274,251.90	269,673.36	258,001.32	302,693.46
					MWh	70,434.46	75,162.97	77,483.32	76,181.08	74,909.27	71,667.03	84,081.52
- Electricity consumption	•	•	•	GJ	253,564.07	270,586.71	278,939.95	274,251.90	269,673.36	258,001.32	302,693.46	
3	<b>Renewable Energy Self-Generation</b>	•	•	•	GJ	225.36	324.30	1,077.57	10,387.28	23,517.49	31,328.80	34,545.83
					MWh	62.60	90.08	299.32	2,885.36	6,532.64	8,702.44	9,596.06
	- Solar energy	•	•	•	GJ	225.36	324.30	1,077.57	10,387.28	23,517.49	31,328.80	34,545.83
Energy intensity	<b>Total Energy consumption intensity</b>	•	•	•	MWh/MUSD	62.40	65.29	66.59	63.32	57.94	60.82	53.34
	<b>Non-renewable consumption intensity</b>	•	•	•	MWh/MUSD	62.34	65.22	66.35	61.10	53.47	54.48	48.05
	- Electricity intensity	•	•	•	MWh/MUSD	60.18	63.00	63.97	58.52	51.28	52.20	46.34
	- Total fuel consumption intensity	•	•	•	MWh/MUSD	2.16	2.22	2.37	2.59	2.19	2.28	1.71
	<b>Renewable consumption intensity (Solar)</b>	•	•	•	MWh/MUSD	0.05	0.08	0.25	2.22	4.47	6.34	5.29
<b>GRI 302-4</b>	<b>Reduction of energy consumption</b>											
	<b>Total Reduction of energy consumption within the organization</b>	• <sup>1</sup>			GJ	0.00	4,873.34	9,485.35	8,870.39	22,009.78	18,395.50	9,778.96
					MWh	0.00	1,353.71	2,634.82	2,464.00	6,113.83	5,109.86	2,716.38
- Reduction of electricity consumption	• <sup>1</sup>			GJ	0.00	4,873.34	9,485.35	8,870.39	22,009.78	18,395.50	9,778.96	
- Reduction of electricity consumption intensity (Saving energy intensity)	• <sup>1</sup>			MWh/MUSD	0.00	1.36	2.52	2.21	4.91	4.24	1.64	

GRI303-3

**Water withdrawal by source**

<b>Total water withdrawal</b> (including rain water)	•2	•2	•2	Megaliters	<b>296.75</b>	<b>342.71</b>	<b>340.69</b>	<b>372.17</b>	<b>380.54</b>	<b>356.83</b>	<b>368.95</b>
Total water withdrawal (including rain water)	•2	•2	•2	Million cubic meters	0.2968	0.3427	0.3407	0.3722	0.3805	0.3568	0.3690
<b>Total water withdrawal</b> (excluding rain water)	•2	•2	•2	Megaliters	<b>296.75</b>	<b>342.71</b>	<b>340.69</b>	<b>372.17</b>	<b>377.16</b>	<b>350.83</b>	<b>364.75</b>
Total water withdrawal (excluding rain water)	•2	•2	•2	Million cubic meters	0.2968	0.3427	0.3407	0.3722	0.3772	0.3508	0.3647
<b>Total Water withdrawal Intensity</b> (Ground+ Municipal water+ rain water)	•2	•2	•2	<b>Megaliters/ MUSD</b>	<b>0.254</b>	<b>0.287</b>	<b>0.281</b>	<b>0.286</b>	<b>0.260</b>	<b>0.260</b>	<b>0.203</b>
Total Water withdrawal Intensity (Ground+ Municipal water+ rain water)	•2	•2	•2	m <sup>3</sup> /MUSD	253.56	287.24	281.28	285.87	260.49	259.92	203.35
<b>Total Water withdrawal Intensity</b> (excluding rain water)	•2	•2	•2	<b>Megaliters/ MUSD</b>	<b>0.254</b>	<b>0.287</b>	<b>0.281</b>	<b>0.286</b>	<b>0.258</b>	<b>0.256</b>	<b>0.201</b>
Total Water withdrawal Intensity (excluding rain water)	•2	•2	•2	m <sup>3</sup> /MUSD	253.56	287.24	281.28	285.87	258.17	255.54	201.03
<b>Total surface water withdrawn</b> (Rain water)	•2	•2	•2	Megaliters	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.38</b>	<b>6.00</b>	<b>4.21</b>
Total surface water withdrawn (Rain water)	•2	•2	•2	Million cubic meters	0.000	0.000	0.000	0.000	0.003	0.006	0.004
Surface water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	3.38	6.00	4.21
Surface water (Other water > 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total groundwater withdrawn</b>	•2	•2	•2	Megaliters	<b>21.37</b>	<b>18.89</b>	<b>20.92</b>	<b>22.12</b>	<b>24.96</b>	<b>24.63</b>	<b>15.31</b>
Total groundwater withdrawn	•2	•2	•2	Million cubic meters	0.021	0.019	0.021	0.022	0.025	0.025	0.015
Groundwater (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	21.37	18.89	20.92	22.12	24.96	24.63	15.31
Groundwater (Other water > 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total seawater withdrawn</b>	•2	•2	•2	Megaliters	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Seawater (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Seawater (Other water > 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total produced water withdrawn</b>	•2	•2	•2	Megaliters	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Produced water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Produced water (Other water > 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total third-party water withdrawn</b>	•2,3	•2,3	•2,3	Megaliters	<b>275.38</b>	<b>323.83</b>	<b>319.78</b>	<b>350.05</b>	<b>352.20</b>	<b>326.20</b>	<b>349.44</b>
Total third-party water withdrawn	•2,3	•2,3	•2,3	Million cubic meters	0.275	0.324	0.320	0.350	0.352	0.326	0.349
Third-party water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	•2,3	•2,3	•2,3	Megaliters	275.38	323.83	319.78	349.43	352.20	319.92	281.84
Third-party water (Other water > 1000 mg/L Total Dissolved Solids)	•2,3	•2,3	•2,3	Megaliters	0.00	0.00	0.00	0.62	0.00	6.28	67.60
<b>Total water withdrawal in water stressed areas</b> (including rain water)	•2	•2	•2	Megaliters	<b>11.82</b>	<b>11.70</b>	<b>13.83</b>	<b>12.30</b>	<b>13.21</b>	<b>13.29</b>	<b>10.37</b>
Total water withdrawal in water stressed areas (including rain water)	•2	•2	•2	Million cubic meters	0.012	0.012	0.014	0.012	0.013	0.013	0.010
<b>Total water withdrawal in water stressed areas</b> (excluding rain water)	•2	•2	•2	Megaliters	<b>11.82</b>	<b>11.70</b>	<b>13.83</b>	<b>12.30</b>	<b>13.21</b>	<b>13.29</b>	<b>10.37</b>
Total water withdrawal in water stressed areas (excluding rain water)	•2	•2	•2	Million cubic meters	0.012	0.012	0.014	0.012	0.013	0.013	0.010
<b>Total surface water withdrawn</b> (Rain water)	•2	•2	•2	Megaliters	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Surface water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface water (Other water > 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total groundwater withdrawn</b>	•2	•2	•2	Megaliters	<b>8.82</b>	<b>8.84</b>	<b>11.54</b>	<b>11.10</b>	<b>12.15</b>	<b>11.87</b>	<b>8.78</b>
Total groundwater withdrawn	•2	•2	•2	Million cubic meters	0.009	0.009	0.012	0.011	0.012	0.012	0.009
Groundwater (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	8.82	8.84	11.54	11.10	12.15	11.87	8.78
Groundwater (Other water > 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total seawater withdrawn</b>	•2	•2	•2	Megaliters	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Seawater (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Seawater (Other water > 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total produced water withdrawn</b>	•2	•2	•2	Megaliters	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Produced water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Produced water (Other water > 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total third-party water withdrawn</b>	•2	•2	•2	Megaliters	<b>3.00</b>	<b>2.86</b>	<b>2.29</b>	<b>1.21</b>	<b>1.06</b>	<b>1.42</b>	<b>1.59</b>
Total third-party water withdrawn	•2	•2	•2	Million cubic meters	0.003	0.003	0.002	0.001	0.001	0.001	0.002
Third-party water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	3.00	2.86	2.29	1.21	1.06	1.42	1.59
Third-party water (Other water > 1000 mg/L Total Dissolved Solids)	•2	•2	•2	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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### Water recycled and reused

<b>Total volume of water recycled and reused by the organization.</b>	•	•	•	Megaliters	17.10	15.98	18.43	28.91	30.47	91.46	118.12
Total volume of water recycled and reused by the organization.	•	•	•	Million cubic meters	0.017	0.016	0.018	0.029	0.030	0.091	0.118
- Water reused	•	•	•	Megaliters	0.00	0.08	3.62	12.96	13.85	17.11	34.47
- Water recycled	•	•	•	Megaliters	17.10	15.91	14.81	15.96	16.63	74.35	83.65
<b>Total volume of water recycled and reused as a percentage of the total water withdrawal</b>	•	•	•	%	5.76%	4.66%	5.41%	7.77%	8.01%	25.63%	32.01%
- Total volume of water reused as a percentage of the total water withdrawal	•	•	•	%	0.00%	0.02%	1.06%	3.48%	3.64%	4.79%	9.34%
- Total volume of water recycled as a percentage of the total water withdrawal	•	•	•	%	5.76%	4.64%	4.35%	4.29%	4.37%	20.84%	22.67%

### GRI303-4

### Water Discharge

<b>Total volume of water discharge in all areas</b>	•4,6	•4,8	•4,7	Megaliters	<b>161.42</b>	<b>180.70</b>	<b>184.65</b>	<b>204.48</b>	<b>203.89</b>	<b>186.78</b>	<b>206.79</b>
Total volume of water discharge in all areas	•4,6	•4,8	•4,7	Million cubic meters	0.161	0.181	0.185	0.204	0.204	0.187	0.207
Surface water	•4,6	•4,8	•4,7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Groundwater	•4,6	•4,8	•4,7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Seawater	•4,6	•4,8	•4,7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Third-party water	•4,6	•4,8	•4,7	Megaliters	161.42	180.70	184.65	204.48	203.89	186.78	206.79
<b>Total volume of water discharge in water stressed areas</b>	•4,6	•4,8	•4,7	Megaliters	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Surface water	•4,6	•4,8	•4,7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Groundwater	•4.6	•4.8	•4.7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Seawater	•4.6	•4.8	•4.7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Third-party water	•4.6	•4.8	•4.7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Water discharge by freshwater and other water</b>	•4.6	•4.8	•4.7	Megaliters	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Total volume of freshwater discharge (≤ 1000 mg/L Total Dissolved Solids)	•4.6	•4.8	•4.7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total volume of other water discharge (> 1000 mg/L Total Dissolved Solids)	•4.6	•4.8	•4.7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Water discharge by freshwater and other water in water stressed areas</b>	•4.6	•4.8	•4.7	Megaliters	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Total volume of freshwater discharge in water stressed areas (≤ 1000 mg/L Total Dissolved Solids)	•4.6	•4.8	•4.7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total volume of other water discharge in water stressed areas (> 1000 mg/L Total Dissolved Solids)	•4.6	•4.8	•4.7	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### GRI 303-5

#### Water consumption

<b>Total water consumption (including rain water)</b>	•5	•5	•5	Megaliters	<b>135.34</b>	<b>162.01</b>	<b>156.04</b>	<b>167.69</b>	<b>176.65</b>	<b>170.06</b>	<b>162.17</b>
Total water consumption (including rain water)	•5	•5	•5	Million cubic meters	0.135	0.162	0.156	0.168	0.177	0.170	0.162
<b>Total water consumption (excluding rain water)</b>	•5	•5	•5	Megaliters	<b>135.34</b>	<b>162.01</b>	<b>156.04</b>	<b>167.69</b>	<b>173.27</b>	<b>164.05</b>	<b>157.96</b>
Total water consumption (excluding rain water)	•5	•5	•5	Million cubic meters	0.135	0.162	0.156	0.168	0.173	0.164	0.158
<b>Total water consumption in water stressed areas</b>	•5	•5	•5	Megaliters	<b>11.82</b>	<b>11.70</b>	<b>13.83</b>	<b>12.30</b>	<b>13.21</b>	<b>13.29</b>	<b>10.37</b>
Total water consumption in water stressed areas	•5	•5	•5	Million cubic meters	0.012	0.012	0.014	0.012	0.013	0.013	0.010
Change in water storage, if water storage has been identified as having a significant water-related impact	•5	•5	•5	Megaliters	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Water consumption Intensity (including rain water)</b>	•5	•5	•5	<b>Megaliters/MUSD</b>	<b>0.116</b>	<b>0.136</b>	<b>0.129</b>	<b>0.129</b>	<b>0.121</b>	<b>0.124</b>	<b>0.089</b>
Total Water consumption Intensity (including rain water)	•5	•5	•5	m <sup>3</sup> /MUSD	115.64	135.79	128.83	128.81	120.92	123.87	89.38
<b>Total Water consumption Intensity (excluding rain water)</b>	•5	•5	•5	<b>Megaliters/MUSD</b>	<b>0.116</b>	<b>0.136</b>	<b>0.129</b>	<b>0.129</b>	<b>0.119</b>	<b>0.119</b>	<b>0.087</b>
Total Water consumption Intensity (excluding rain water)	•5	•5	•5	m <sup>3</sup> /MUSD	115.64	135.79	128.83	128.81	118.60	119.50	87.06

### GRI 305-1

#### Direct (Scope 1) GHG emissions

<b>Total Direct (Scope 1) GHG emissions</b>	•	•	•	Tons CO2e	<b>824.00</b>	<b>488.00</b>	<b>935.09</b>	<b>971.45</b>	<b>932.98</b>	<b>897.08</b>	<b>1,359.72</b>
THAILAND				Tons CO2e	824.00	488.00	425.09	258.45	248.65	133.72	764.48
INDIA				Tons CO2e				208.00	210.33	265.36	146.68
SLOVAKIA				Tons CO2e			509.87	504.88	474.24	498.61	448.56

### GRI 305-2

#### Energy indirect (Scope 2) GHG emissions

<b>Energy indirect (Scope 2) GHG emissions</b>	•	•	•	Tons CO2e	<b>37,662.00</b>	<b>39,858.00</b>	<b>42,098.00</b>	<b>43,206.00</b>	<b>42,120.44</b>	<b>40,126.24</b>	<b>42,160.33</b>
THAILAND				Tons CO2e	37,662.00	39,858.00	41,461.00	40,161.00	39,355.96	37,651.01	39,779.41
INDIA				Tons CO2e				2,348.00	2,224.48	2,057.23	1,779.91
SLOVAKIA				Tons CO2e			636.61	678.71	539.64	418.27	601.01

## GRI 305-3

## Other indirect (Scope 3) GHG emissions

<b>Other indirect (Scope 3) GHG emissions</b>	•	•	•	Tons CO2e			<b>36,739.00</b>	<b>33,254.60</b>	<b>65,718.59</b>	<b>56,309.65</b>	<b>95,149.07</b>
THAILAND				Tons CO2e			28,311.00	18,535.60	46,264.62	40,207.66	81,628.38
INDIA				Tons CO2e				4,454.00	6,675.97	4,733.99	2,046.00
SLOVAKIA				Tons CO2e			8,428.00	10,265.44	12,778.14	11,367.76	11,474.69

## GRI 305-4

## GHG emissions intensity

<b>Total GHG emissions (Scope 1 and Scope 2) intensity</b>	•	•	•	<b>Tons CO2e/MUSD</b>	<b>39.03</b>	<b>40.40</b>	<b>38.43</b>	<b>33.93</b>	<b>29.47</b>	<b>29.88</b>	<b>23.99</b>
THAILAND				Tons CO2e/MUSD	39.03	40.40	37.41	31.05	27.11	27.52	22.35
INDIA				Tons CO2e/MUSD				1.96	1.67	1.69	1.06
SLOVAKIA				Tons CO2e/MUSD			1.02	0.91	0.69	0.67	0.58
<b>Total Other indirect (Scope 3) GHG emissions intensity</b>	•	•	•	<b>Tons CO2e/MUSD</b>			<b>32.81</b>	<b>25.54</b>	<b>44.99</b>	<b>41.02</b>	<b>52.44</b>
THAILAND				Tons CO2e/MUSD			25.28	14.24	31.67	29.29	44.99
INDIA				Tons CO2e/MUSD				3.42	4.57	3.45	1.13
SLOVAKIA				Tons CO2e/MUSD			7.53	7.89	8.75	8.28	6.32

## GRI 305-7

## Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions

NO <sub>x</sub> (Slovakia's data was firstly consolidated in 2019)	•	•	•	Tons/year		0.0525	0.00	0.1289	0.0548	5.5249	7.7836
SO <sub>x</sub> (Slovakia's data was firstly consolidated in 2019)	•	•	•	Tons/year		0.00	0.00	0.0294	0.0142	0.0508	0.0641
CO (Slovakia's data was firstly consolidated in 2019)	•	•	•	Tons/year		1.1201	0.5495	0.6723	3.6353	8.9519	6.1225
Tin (Sn) (Slovakia's data was firstly consolidated in 2019)	•	•	•	Tons/year		0.5812	0.1982	1.2270	0.0528	0.3005	0.0496
Lead (Pb) (Slovakia's data was firstly consolidated in 2019)	•	•	•	Tons/year		0.0451	0.0013	0.0015	0.0012	0.0095	0.0366
<b>Xylene + Toluene intensity</b>	•	•	•	<b>Tons/MUSD</b>		<b>0.0010</b>	<b>0.0009</b>	<b>0.0012</b>	<b>0.0021</b>	<b>0.0009</b>	<b>0.0002</b>
<b>Xylene + Toluene</b>	•	•	•	<b>Tons/year</b>		<b>0.9861</b>	<b>0.9414</b>	<b>1.4504</b>	<b>2.9066</b>	<b>1.1933</b>	<b>0.4315</b>
Xylene (Slovakia's data was firstly consolidated in 2019)	•	•	•	Tons/year		0.6955	0.5514	0.7142	1.1950	0.5621	0.2334
Toluene (Slovakia's data was firstly consolidated in 2019)	•	•	•	Tons/year		0.2906	0.3900	0.7361	1.7116	0.6312	0.1981
<b>Total Volatile Organic Compounds intensity (t VOCs)</b>	•	•	•	<b>Tons/MUSD</b>						<b>0.0600</b>	0.0156
Total Volatile Organic Compounds (t VOCs)	•	•	•	Tons/year		N/A	N/A	N/A	N/A	82.43	28.30
Total suspended particulate (TSP)	•	•	•	Tons/year		26.96	20.46	22.79	18.81	27.46	34.57

## GRI 306-3

## Waste generated (HW – Hazardous waste, NHW – Non-hazardous waste)

<b>Total waste generated (HW + NHW)</b>	•	•	•	<b>Tons/year</b>			<b>2,987.66</b>	<b>3,170.62</b>	<b>3,391.59</b>	<b>3,152.78</b>	<b>4,110.58</b>
Total waste generated intensity (HW + NHW)	•	•	•	Tons/MUSD			2.467	2.435	2.322	2.296	2.266
<b>Diversion rate</b> (Waste diverted divided by the total amount of waste)	•	•	•	<b>%</b>			<b>92.73%</b>	<b>93.66%</b>	<b>94.25%</b>	<b>94.75%</b>	<b>98.60%</b>
<b>Total Hazardous waste</b>	•	•	•	<b>Tons/year</b>			<b>18.82</b>	<b>19.39</b>	<b>35.63</b>	<b>40.21</b>	<b>50.29</b>
Hazardous waste intensity	•	•	•	Tons/MUSD			0.016	0.015	0.024	0.029	0.028
<b>Waste diverted from disposal</b>	•	•	•	<b>Tons/year</b>			<b>18.82</b>	<b>19.39</b>	<b>35.63</b>	<b>27.39</b>	<b>35.10</b>

GRI306-3  
(HW)

## GRI306-4 (HW)

GRI306-5 (HW)	- Preparation for reuse	●	●	●	Tons/year			0.12	0.16	0.18	0.16	0.00
	- Recycling	●	●	●	Tons/year			18.70	19.23	35.45	27.23	31.17
	Other recovery operations (Heat recovery)	●	●	●	Tons/year			0.00	0.00	0.00	0.00	3.93
	<b>Waste directed to disposal</b>	●	●	●	Tons/year			<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>12.82</b>	<b>15.20</b>
	- Incineration (with energy recovery)	●	●	●	Tons/year			0.00	0.00	0.00	10.65	0.00
	- Incineration (without energy recovery)	●	●	●	Tons/year			0.00	0.00	0.00	0.00	0.00
	- Landfilling (secure landfill of stabilized and/or solidified wastes)	●	●	●	Tons/year			0.00	0.00	0.00	0.00	15.20
	- Other disposal operations (Demulsification)	●	●	●	Tons/year			0.00	0.00	0.00	2.17	0.00
GRI306-3 (NHW)	<b>Total Non-hazardous waste</b>	●	●	●	<b>Tons/year</b>			<b>2,968.84</b>	<b>3,151.23</b>	<b>3,355.96</b>	<b>3,112.57</b>	<b>4,060.29</b>
	Non-hazardous waste intensity	●	●	●	Tons/MUSD			2.451	2.421	2.297	2.267	2.238
GRI306-4 (NHW)	<b>Waste diverted from disposal</b>	●	●	●	Tons/year			<b>2,751.71</b>	<b>2,950.36</b>	<b>3,161.07</b>	<b>2,959.76</b>	<b>4,017.76</b>
GRI306-5 (NHW)	- Preparation for reuse	●	●	●	Tons/year			255.26	286.50	318.92	342.97	31.50
	- Recycling	●	●	●	Tons/year			2,494.45	2,661.46	2,839.05	2,610.60	3,975.74
	- Other recovery operations (Composting)	●	●	●	Tons/year			2.00	2.40	3.10	6.20	1.12
	- Other recovery operations (Heat recovery)	●	●	●	Tons/year			0.00	0.00	0.00	0.00	9.40
	<b>Waste directed to disposal</b>	●	●	●	Tons/year			<b>217.13</b>	<b>200.87</b>	<b>194.89</b>	<b>152.81</b>	<b>42.53</b>
	Incineration (with energy recovery)	●	●	●	Tons/year			<b>5.73</b>	<b>4.51</b>	<b>5.59</b>	<b>9.11</b>	0.0000
	Incineration (without energy recovery)	●	●	●	Tons/year			0.00	0.00	0.00	0.00	0.0000
	Landfilling	●	●	●	Tons/year			211.40	196.36	189.30	143.70	42.53
	Other disposal operations	●	●	●	Tons/year			0.00	0.00	0.00	0.00	0.0000

**Note:** From 2015-2020, the reporting of environmental performance was re-calculated to expand reporting scope covers DET's subsidiaries (India and Slovakia) for the full coverage of manufacturing (100 percentage coverage of manufacturing sites or 98% of consolidated sales revenue). The scope of 2015-2020 reporting were re-stated as follows:

1. Reduction of energy consumption is covered on the sites in Thailand only.
2. The numerical data of water withdrawal by source (GRI 303-3) and subtopics were re-calculated covering Delta's subsidiaries data according to GRI 303: water and effluents version 2018.
3. Due to the insufficient Total Dissolved Solids (TDS) data of raw water in 2014-2016, the total third-party water withdrawn (GRI 303-3) was re-calculated from 2017-2020 for data consistency and accuracy.
4. The volume of wastewater is assumed to be 80% of Municipal water and transferred to Third-party who provide wastewater treatment services (IEAT: Industrial Estate Authority of Thailand). The numerical data of water discharge (GRI303-4) and subtopics were re-calculated according to GRI 303: water and effluents version 2018 since 2014-2020 to indicate the exact the total volume of discharged water to third-party.
5. The volume of water consumption (GRI: 303-5) was re-calculated covering Delta's subsidiaries data according to GRI 303: water and effluents version 2018.
6. Thailand sites, apart from water quality checking by Industrial Estate Authority of Thailand (IEAT), the discharged water is also examined heavy metals concentration annually by Third Party Specialist (Environmental Resource Development Co., Ltd.) to ensure and re-check the safety and quality of water before transfer to IEAT for treatment. (The average results of water parameter for heavy metals from 2017- 2020 was demonstrated in Delta Thailand's Sustainability in Numbers 2020 page 8)
7. India's sites applies the zero water discharge process by installation their own Sewage Treatment Plants (STP) is to reduce wastewater economically. The discharge water is annually checked the water quality by Third-party (Eko Pro Engineers Pvt. Ltd. and S. V. India Calibration Services) according to EPA-1986 Schedule-VI Part-A, General Standards for Discharge of Effluents and recycled for domestic use and examine heavy metals concentration in water after treated. (The average results of water parameter for heavy metals from 2017- 2020 was demonstrated in Delta Thailand's Sustainability in Numbers 2020 page 8)

8. Slovakia's sewage water is transferred to the public sewerage system to be treated by third-party who provide wastewater treatment services for the local district. <http://www.povs.sk/zakaznicka-zona/verejne-kanalizacie-a-kanalizacna-pripojka/> .Thus the water quality indicators, Slovakia's site reports the highest permissible rate of wastewater discharged into public sewerage according to Slovakia's local water quality standard.
9. The numerical data of Waste (GRI: 306) and subtopics were re-calculated and re-arranged 2016-2020 according to GRI 306: waste version 2020.
10. The waste data (GRI: 306-3, 306-4 and 306-5 version 2020) in 2020 was disclosed in Delta Thailand's Sustainability in Numbers 2020 page 9.

## The average results of water parameter for heavy metals from water discharged 2017- 2020

### Thailand

Average results of water parameter in 2017- 2020 (DET1,3,5,6)								
No.	PARAMETERS	Unit	Analysis Method	STD.	2017	2018	2019	2020
1	pH	-	pH Meter	5.5-9.0	7.63	7.80	6.90	7.13
2	Temperature	°C	Thermometer	45	31.10	29.37	32.00	31.75
3	Color (Original)*	ADMI	ADMI Method	600	pass	94.00	124.00	133.00
4	Odor	-	-	Pass	pass	pass	pass	pass
5	BOD	mg/l	Azide Modification	500	36.67	121.67	85.33	79.50
6	COD	mg/l	Closed Reflux	750	79.82	248.33	150.33	166.25
7	Suspended Solids (SS)	mg/l	Dried at 103-105 °C	200	24.67	44.70	39.33	51.00
8	Total Dissolved Solids (TDS)	mg/l	Dried at 180 °C	3000	531.33	1,000.00	563.33	442.50
9	Total Kjeldahl Nitrogen (TKN)	mg/l	Kjeldahl Method	100	40.57	48.33	45.33	67.25
10	Grease & Oil	mg/l	Partition & Gravimetric	10	6.80	5.00	5.00	6.25
11	Sulfide	mg/l	Iodometric Method	1	0.46	0.46	0.36	0.50
12	Free Chlorine*	mg/l	DPD Colorimetric	1	0.19	0.10	0.10	0.05
13	Cyanide as HCN *	mg/l	Pyridine-Barbituric Acid	0.2	0.02	0.02	0.02	0.02
14	Formaldehyde *	mg/l	Colorimetric	1	0.00	0.00	0.00	0.00
15	Phenols Compound *	mg/l	Colorimetric	1	0.03	0.01	0.03	0.11
16	Surfactant	mg/l	Colorimetric	30	0.23	0.23	0.02	0.08
17	Fluoride (F) *	mg/l	SPADNS	5	0.27	0.56	0.88	0.67
18	Arsenic (As)*	mg/l	Inductively coupled plasma	0.25	0.00	0.00	0.00	0.00
19	Barium (Ba)*	mg/l	Inductively coupled plasma	1	0.05	0.06	0.33	0.04
20	Cadmium (Cd)*	mg/l	Inductively coupled plasma	0.03	0.00	0.00	0.01	0.00
21	Chromium (Cr+3)*	mg/l	Inductively coupled plasma	0.75	0.05	0.00	0.02	0.00
22	Chromium (Cr+6)*	mg/l	Inductively coupled plasma	0.25	0.01	0.01	0.00	0.00
23	Copper (Cu)*	mg/l	Inductively coupled plasma	2	0.02	0.11	0.12	0.03
24	Iron (Fe)*	mg/l	Inductively coupled plasma	10	0.90	0.37	0.82	0.34
25	Lead (Pb)*	mg/l	Inductively coupled plasma	0.2	0.00	0.01	0.01	0.01
26	Manganese (Mn)*	mg/l	Inductively coupled plasma	5	1.82	0.14	0.13	0.16
27	Mercury (Hg)*	mg/l	Inductively coupled plasma	0.005	0.00	0.00	0.00	0.00
28	Nickel (Ni)*	mg/l	Inductively coupled plasma	1	0.00	0.00	0.01	0.00
29	Selenium (Se)*	mg/l	Inductively coupled plasma	0.02	0.00	0.00	0.00	0.00
30	Silver (Ag)*	mg/l	Inductively coupled plasma	1	0.00	0.00	0.00	0.00
31	Zinc (Zn)*	mg/l	Inductively coupled plasma	5	0.03	0.19	0.55	0.10

### India

Average results of water parameter in 2017- 2020 (Delta Electronics India Pvt. Ltd)									
No.	PARAMETERS	Unit	Analysis Method	STD.	2017	2018	2019	2020	
1	pH	-	IS : 3025 (P-11)	5.5-9.0	7.40	7.33	7.35	7.73	
2	Temperature (°C)	°C	IS : 3025 (P-9)	-	23.50	25.00	26.50	24.00	
3	Eff. TDS	(mg/l)	IS : 3025 (P-16)	-	683.00	586.50	660.00	766.00	
4	Avg. Eff. TSS/SS	(mg/l)	IS : 3025 (P-17)	100	40.00	36.00	21.50	47.00	
5	Grease & Oil	(mg/l)	IS : 3025 (P-39)	10	4.00	4.00	4.00	3.16	
6	Eff. COD	(mg/l)	IS : 3025 (P-58)	250	60.25	53.70	53.10	75.20	
7	Eff. BOD	(mg/l)	IS : 3025 (P-44)	30	22.00	20.50	15.00	20.50	
8	Total Nitrogen (as N)	(mg/l)	IS : 3025 (P-34)	10	2.81	2.80	3.31	2.72	
9	Manganese (Mn)	(mg/l)	IS : 3025 (P-59)	2	0.005	0.005	0.005	0.01	
10	Sulfide	(mg/l)	IS : 3025 (P-29)	2	1.000	1.000	1.000	0.55	
11	Fluoride (F)	(mg/l)	APHA 4500-F D	2	0.780	0.650	0.680	0.42	
12	Ammonical Nitrogen as NH3-N)	(mg/l)	APHA 4500 NH3 C	50	6.230	4.935	2.735	4.44	
13	Copper (Cu)	(mg/l)	APHA 3125 B	3	0.008	0.005	0.953	0.01	
14	Zinc (Zn)	(mg/l)	IS : 3025 (P-49)	5	0.790	0.640	1.295	0.54	
15	Phenols Compound as C6H5OH	(mg/l)	IS : 3025 (P-43)	1	0.001	0.001	0.001	0.00	
16	Total Residual Chlorine	(mg/l)	IS : 3025 (P-26)	1	0.200	0.200	0.200	0.15	
17	Arsenic (As)	(mg/l)	APHA 3125 B	0.2	0.005	0.005	0.005	0.01	
18	Cadmium (Cd)	(mg/l)	APHA 3125 B	2	0.003	0.003	0.163	0.23	
19	Vanadium (as V)	(mg/l)	APHA 3125 B	0.2	0.010	0.010	0.010	0.01	
20	Chromium (Cr+6)	(mg/l)	APHA 3125 B	0.1	0.028	0.050	0.035	0.04	
21	Chromium (Cr+3)	(mg/l)	APHA 3125 B	2	0.005	0.005	0.005	0.01	
22	Lead (Pb)	(mg/l)	APHA 3125 B	0.1	0.028	0.028	0.005	0.01	
23	Selenium (Se)	(mg/l)	APHA 3125 B	0.05	0.005	0.005	0.005	0.01	
24	Mercury (Hg)	(mg/l)	EKO/CHEM/SOP-ICPMS/W-01	0.01	0.001	0.001	0.001	0.00	
25	Phosphate (as PO4)	(mg/l)	IS : 3025 (P-31)	5	1.720	1.750	1.140	1.71	
26	TKN	(mg/l)	APHA 4500 N	100	4.800	4.310	4.180	4.26	
27	Cyanide as HCN	(mg/l)	APHA 4500 CN-K	0.2	Absent	Absent	Absent	Absent	
28	Nikel (Ni)	(mg/l)	APHA 3125 B	3	0.008	0.005	0.513	1.08	
29	Iron (Fe)	(mg/l)	APHA 3125 B	3	0.480	0.370	0.410	0.44	



## CONSOLIDATE WASTE DATA 2020

### GRI 306-3 Waste generated

	Waste generated (tons)	Waste diverted from disposal (tons)	Waste directed to disposal (tons)
Waste composition	306-3	306-4	306-5
Hazardous waste	50.29	35.10	15.20
Non-hazardous waste	4,060.29	4,017.76	42.53
<b>Total waste</b>	<b>4,110.58</b>	<b>4,052.86</b>	<b>57.73</b>

### GRI 306-4 Waste diverted from disposal

	Onsite (tons)	Offsite (tons)	Total (tons)
<b>Hazardous waste</b>	<b>306-4</b>	<b>306-4</b>	<b>306-4</b>
Preparation for reuse	0.00	0.00	0.00
Recycling	0.00	31.17	31.17
Other recovery operations (Heat recovery)	0.00	3.93	3.93
<b>Total</b>	<b>0.00</b>	<b>35.10</b>	<b>35.10</b>
<b>Non-hazardous waste</b>	<b>306-4</b>	<b>306-4</b>	<b>306-4</b>
Preparation for reuse	31.50	0.00	31.50
Recycling	0.00	3975.74	3975.74
Other recovery operations (Composting)	1.12	0.00	1.12
Other recovery operations (Heat recovery)	0.00	9.40	9.40
<b>Total</b>	<b>32.62</b>	<b>3985.14</b>	<b>4017.76</b>

### GRI 306-5 Waste directed to disposal

	Onsite (tons)	Offsite (tons)	Total (tons)
<b>Hazardous waste</b>	<b>306-5</b>	<b>306-5</b>	<b>306-5</b>
Incineration (with energy recovery)	0.00	0.00	0.00
Incineration (without energy recovery)	0.00	0.00	0.00
Landfilling	0.00	15.20	15.20
Other disposal operations	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>15.20</b>	<b>15.20</b>
<b>Non-hazardous waste</b>	<b>306-5</b>	<b>306-5</b>	<b>306-5</b>
Incineration (with energy recovery)	0.00	0.00	0.00
Incineration (without energy recovery)	0.00	0.00	0.00
Landfilling	0.00	42.53	42.53
Other disposal operations	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>42.53</b>	<b>42.53</b>