|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **DMU** | **分配到碳減量** | **原始碳排放** | **減少排放比率** | **增加產出** | **增加其他投入** | **增加勞動投入** | **增加垃圾焚化量** |
| **0** | 0 | 136,698 | 0% | 0 | 0 | 0 | 0 |
| **1** | 2,819 | 188,626 | 1% | (46,241) | 349,621 | 197,748 | (3,758) |
| **2** | (2,089) | 109,952 | -2% | (4,748) | (107,198) | (123,788) | 2,786 |
| **3** | 43,467 | 289,382 | 15% | (128,999) | (1,879,082) | (3,008,180) | (57,956) |
| **4** | 40,924 | 284,788 | 14% | (118,857) | 1,024,001 | 1,199,211 | (54,566) |
| **5** | 17,426 | 245,548 | 7% | (109,558) | 440,729 | 578,063 | (23,235) |
| **6** | 0 | 140,792 | 0% | (0) | 0 | 0 | (0) |
| **7** | 5,271 | 282,796 | 2% | (106,356) | 721,454 | 1,219,427 | (7,028) |
| **8** | 6,171 | 133,405 | 5% | (51,503) | 839,816 | 213,136 | (8,227) |
| **9** | 38,703 | 284,377 | 14% | (28,453) | (730,742) | (642,189) | (51,603) |
| **10** | (21,786) | 151,774 | -14% | (3,633) | (1,329,617) | (1,057,003) | 29,047 |
| **11** | (58,614) | 188,917 | -31% | (17,767) | (558,172) | 238,950 | 78,153 |
| **12** | 23,995 | 164,930 | 15% | (80,294) | 321,995 | 226,377 | (31,993) |
| **13** | 0 | 47,430 | 0% | 0 | 0 | 0 | 0 |
| **14** | 45,600 | 201,153 | 23% | (92,295) | 417,311 | 489,727 | (60,800) |
| **15** | 4,530 | 190,618 | 2% | (44,433) | 281,005 | 402,365 | (6,040) |
| **16** | (30,438) | 136,926 | -22% | 17,596 | (311,511) | 119,495 | 40,584 |
| **17** | 4,324 | 196,592 | 2% | (54,658) | 99,405 | (18,668) | (5,765) |
| **18** | 62,829 | 203,855 | 31% | (114,958) | (691,362) | (619,608) | (83,772) |
| **19** | 0 | 101,225 | 0% | 0 | 0 | 0 | 0 |
| **20** | (80,257) | 162,134 | -50% | 9,100 | 1,501,438 | 1,435,601 | 107,009 |
| **21** | (12,168) | 267,404 | -5% | (73,854) | 1,296,039 | 161,958 | 16,224 |
| **22** | 2,588 | 188,395 | 1% | (63,379) | 567,436 | 598,192 | (3,450) |
| **23** | (49,079) | 123,698 | -40% | 24,930 | 136,394 | 520,504 | 65,438 |
| **Total** | 44,214 | 4,421,411 | 1% | (1,088,359) | 2,388,961 | 2,131,319 | (58,952) |



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| **DMU** | **設計發電量(1000kW/day)** | **設計處理量(tons/day)** | **Lozano** | **Feng** | **Nash CRS** |
| **0** | 14,700,000 | 600 | 12,070 | 9,552 | 10,022 |
| **1** | 22,500,000 | 900 | 0 | 0 | 53,921 |
| **2** | 11,800,000 | 500 | 3,514 | 0 | (324) |
| **3** | 35,100,000 | 1,350 | 0 | 0 | 43,467 |
| **4** | 36,500,000 | 1,350 | 0 | 0 | 77,151 |
| **5** | 38,000,000 | 1,350 | 0 | 0 | 24,142 |
| **6** | 25,500,000 | 900 | 0 | 0 | 0 |
| **7** | 49,000,000 | 1,800 | 0 | 37,248 | 5,271 |
| **8** | 15,800,000 | 600 | 0 | 0 | 7,553 |
| **9** | 35,771,000 | 1,350 | 0 | 22,588 | 78,219 |
| **10** | 14,600,000 | 900 | 20,080 | 26,026 | (21,010) |
| **11** | 22,300,000 | 1,350 | 0 | 0 | (58,615) |
| **12** | 23,720,000 | 900 | 0 | 0 | 27,750 |
| **13** | 2,326,000 | 300 | 26,449 | 0 | 0 |
| **14** | 25,000,000 | 900 | 0 | 0 | 61,376 |
| **15** | 22,600,000 | 900 | 0 | 0 | (1,651) |
| **16** | 13,000,000 | 900 | 19,664 | 21,387 | (29,096) |
| **17** | 22,600,000 | 900 | 0 | 0 | 4,324 |
| **18** | 22,600,000 | 900 | 0 | 0 | 68,948 |
| **19** | 6,000,000 | 900 | 48,484 | 101,225 | 0 |
| **20** | 13,500,000 | 1,500 | 47,696 | 0 | (82,384) |
| **21** | 45,000,000 | 1,800 | 0 | 0 | (2,006) |
| **22** | 22,500,000 | 900 | 0 | 3,045 | 1,458 |
| **23** | 14,300,000 | 900 | 0 | 0 | (47,447) |
| **# of reduction (positive value)** |  |  | 7 | 8 | 13 |
| **mean** | 23,113,208 | 1,027 | 7,415 | 9,211 | 9,211 |
| **std** | 11,772,801 | 379 | 14,675 | 22,208 | 41,009 |
| **min** | 2,326,000 | 300 | 0 | 0 | (82,384) |
| **max** | 49,000,000 | 1,800 | 48,484 | 101,225 | 78,219 |

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| --- | --- | --- | --- | --- | --- |
|  | **Original** | **Lozano** | **Feng** | **Nash CRS** | **Nash NIRS** |
| **0** | 0.88 | 0.93 | 0.95 | 0.81 | 0.81 |
| **1** | 0.81 | 0.81 | 0.78 | 0.82 | 0.69 |
| **2** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **3** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **4** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **5** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **6** | 0.45 | 0.44 | 0.45 | 0.38 | 0.42 |
| **7** | 0.86 | 0.86 | 0.99 | 0.70 | 0.77 |
| **8** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **9** | 0.54 | 0.54 | 0.53 | 0.52 | 0.54 |
| **10** | 0.79 | 0.91 | 0.86 | 0.53 | 0.77 |
| **11** | 0.75 | 0.75 | 0.65 | 0.41 | 0.59 |
| **12** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **13** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **14** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **15** | 0.79 | 0.79 | 0.76 | 0.57 | 0.76 |
| **16** | 0.62 | 0.71 | 0.54 | 0.41 | 0.58 |
| **17** | 0.97 | 0.97 | 0.97 | 0.68 | 0.93 |
| **18** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **19** | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 |
| **20** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **21** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **22** | 0.93 | 0.93 | 0.94 | 0.68 | 0.81 |
| **23** | 0.71 | 0.68 | 0.64 | 0.43 | 0.58 |
| **mean** | 0.88 | 0.89 | 0.83 | 0.79 | 0.84 |
| **std** | 0.16 | 0.16 | 0.25 | 0.24 | 0.19 |
| **min** | 0.45 | 0.44 | 0.00 | 0.38 | 0.42 |
| **max** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
|  |  |  |  |  |  |









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| --- | --- | --- |
| Variables |  |  |
| **Variable Inputs** |  |  |
| Labor cost (Thousands NT$) | mean | 1823246 |
| standard deviation | 1046961 |
| Other cost (Thousands NT$) | mean | 1181243 |
| standard deviation | 889066 |
| Refuse incinerated (Tonnes) | mean | 245634 |
| standard deviation | 87115 |
| **Fixed Input** |  |  |
| Disposal incineration capacity (Tonnes/Day) | mean | 1027 |
| standard deviation | 379 |
| Level of power generation (Kw) | mean | 23113 |
| standard deviation | 11773 |
| **Goods** |  |  |
| Electricity Generated  (1000 KWh) | mean | 101763 |
| standard deviation | 50249 |
| **Bads** |  |  |
| CO2 Equivilant | mean | 184225 |
| standard deviation | 65336 |





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| **DMU** | **分配到的碳減量** | **原始的碳排放** | **減少的排放比率** | **增加的產出** | **增加其他投入** | **增加勞動** | **增加垃圾焚化量** |
| **0** | 0 | 136,698 | 0% | 0 | 0 | 0 | 0 |
| **1** | 2,819 | 188,626 | 1% | (46,241) | 349,621 | 197,748 | (3,758) |
| **2** | (2,089) | 109,952 | -2% | (4,748) | (107,198) | (123,788) | 2,786 |
| **3** | 43,467 | 289,382 | 15% | (128,999) | (1,879,082) | (3,008,180) | (57,956) |
| **4** | 40,924 | 284,788 | 14% | (118,857) | 1,024,001 | 1,199,211 | (54,566) |
| **5** | 17,426 | 245,548 | 7% | (109,558) | 440,729 | 578,063 | (23,235) |
| **6** | 0 | 140,792 | 0% | (0) | 0 | 0 | (0) |
| **7** | 5,271 | 282,796 | 2% | (106,356) | 721,454 | 1,219,427 | (7,028) |
| **8** | 6,171 | 133,405 | 5% | (51,503) | 839,816 | 213,136 | (8,227) |
| **9** | 38,703 | 284,377 | 14% | (28,453) | (730,742) | (642,189) | (51,603) |
| **10** | (21,786) | 151,774 | -14% | (3,633) | (1,329,617) | (1,057,003) | 29,047 |
| **11** | (58,614) | 188,917 | -31% | (17,767) | (558,172) | 238,950 | 78,153 |
| **12** | 23,995 | 164,930 | 15% | (80,294) | 321,995 | 226,377 | (31,993) |
| **13** | 0 | 47,430 | 0% | 0 | 0 | 0 | 0 |
| **14** | 45,600 | 201,153 | 23% | (92,295) | 417,311 | 489,727 | (60,800) |
| **15** | 4,530 | 190,618 | 2% | (44,433) | 281,005 | 402,365 | (6,040) |
| **16** | (30,438) | 136,926 | -22% | 17,596 | (311,511) | 119,495 | 40,584 |
| **17** | 4,324 | 196,592 | 2% | (54,658) | 99,405 | (18,668) | (5,765) |
| **18** | 62,829 | 203,855 | 31% | (114,958) | (691,362) | (619,608) | (83,772) |
| **19** | 0 | 101,225 | 0% | 0 | 0 | 0 | 0 |
| **20** | (80,257) | 162,134 | -50% | 9,100 | 1,501,438 | 1,435,601 | 107,009 |
| **21** | (12,168) | 267,404 | -5% | (73,854) | 1,296,039 | 161,958 | 16,224 |
| **22** | 2,588 | 188,395 | 1% | (63,379) | 567,436 | 598,192 | (3,450) |
| **23** | (49,079) | 123,698 | -40% | 24,930 | 136,394 | 520,504 | 65,438 |
| **Total** | 44,214 | 4,421,411 | 1% | (1,088,359) | 2,388,961 | 2,131,319 | (58,952) |

