5 Outputs Opex Cost Function - short period

LSECD short Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_lb | eff\_ub |
| dnsp |  |  |  |
| 1 | .4956472 | .3447397 | .6465547 |
| 2 | .607583 | .4424858 | .7726802 |
| 3 | .7320732 | .6096752 | .8544713 |
| 4 | .6972489 | .5643378 | .83016 |
| 5 | .6798465 | .5788776 | .7808154 |
| 6 | .6167328 | .4874105 | .7460552 |
| 7 | .6827195 | .5338736 | .8315655 |
| 8 | .6866834 | .5630032 | .8103635 |
| 9 | 1 | 1 | 1 |
| 10 | .8478476 | .6981587 | .9975365 |
| 11 | .7880096 | .6719295 | .9040896 |
| 12 | .8491647 | .6496528 | 1.048677 |
| 13 | .8931769 | .7233716 | 1.062982 |
| Total | .7366718 | .6051935 | .86815 |

LSECD short Elasticities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| Country code |  |  |  |  |  |  |
| 1.Aust | 0.461 | 0.234 | -0.083 | 0.328 | 0.019 | 0.959 |
| 2.NZ | 0.461 | 0.234 | -0.083 | 0.328 | 0.019 | 0.959 |
| 3.Ontario | 0.461 | 0.234 | -0.083 | 0.328 | 0.019 | 0.959 |
| Total | 0.461 | 0.234 | -0.083 | 0.328 | 0.019 | 0.959 |

LSETLG short Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_lb | eff\_ub |
| dnsp |  |  |  |
| 1 | .5291029 | .3755035 | .6827022 |
| 2 | .5444036 | .4049505 | .6838566 |
| 3 | .8179994 | .6442763 | .9917225 |
| 4 | .7393712 | .6003734 | .878369 |
| 5 | .6273797 | .5287766 | .7259828 |
| 6 | .8193941 | .6150593 | 1.023729 |
| 7 | .7867051 | .60759 | .9658202 |
| 8 | .6323478 | .483999 | .7806966 |
| 9 | 1 | 1 | 1 |
| 10 | .7823321 | .6217917 | .9428726 |
| 11 | .6523096 | .5526159 | .7520034 |
| 12 | .9587831 | .7420943 | 1.175472 |
| 13 | .6958053 | .5401149 | .8514955 |
| Total | .7373795 | .5936266 | .8811325 |

LSETLG short Elasticities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| Country code |  |  |  |  |  |  |
| 1.Aust | -0.365 | 0.320 | -0.013 | 0.921 | 0.023 | 1.817 |
| 2.NZ | 0.544 | 0.216 | -0.116 | 0.257 | 0.025 | 1.152 |
| 3.Ontario | 0.181 | 0.163 | 0.312 | 0.284 | 0.012 | 1.215 |
| Total | 0.178 | 0.213 | 0.110 | 0.412 | 0.019 | 1.324 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| dnsp |  |  |  |  |  |  |
| 1 | -0.160 | 0.245 | -0.070 | 0.857 | 0.012 | 1.717 |
| 2 | -0.702 | 0.342 | 0.097 | 1.116 | 0.014 | 2.017 |
| 3 | -0.370 | 0.239 | 0.066 | 0.939 | 0.001 | 1.805 |
| 4 | -0.540 | 0.313 | 0.215 | 0.899 | 0.023 | 1.826 |
| 5 | -0.575 | 0.340 | 0.067 | 1.027 | 0.019 | 1.931 |
| 6 | -0.193 | 0.317 | 0.423 | 0.400 | 0.052 | 1.406 |
| 7 | -0.166 | 0.355 | 0.083 | 0.621 | 0.046 | 1.574 |
| 8 | -0.197 | 0.288 | -0.324 | 1.048 | -0.001 | 1.870 |
| 9 | -0.254 | 0.344 | -0.055 | 0.828 | 0.030 | 1.736 |
| 10 | -0.558 | 0.377 | -0.100 | 1.131 | 0.039 | 2.029 |
| 11 | -0.349 | 0.371 | -0.341 | 1.129 | 0.023 | 1.985 |
| 12 | -0.155 | 0.291 | 0.080 | 0.681 | 0.033 | 1.603 |
| 13 | -0.520 | 0.333 | -0.311 | 1.301 | 0.005 | 2.126 |
| Total | -0.365 | 0.320 | -0.013 | 0.921 | 0.023 | 1.817 |

LSETLG short Monotonicity Violations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | mon4 | mon5 | montot |
| Country code |  |  |  |  |  |  |
| 1.Aust | 0.987 | 0.000 | 0.449 | 0.000 | 0.071 | 0.987 |
| 2.NZ | 0.105 | 0.000 | 0.728 | 0.276 | 0.000 | 0.982 |
| 3.Ontario | 0.198 | 0.000 | 0.083 | 0.089 | 0.029 | 0.385 |
| Total | 0.337 | 0.000 | 0.362 | 0.128 | 0.029 | 0.699 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | mon4 | mon5 | montot |
| dnsp |  |  |  |  |  |  |
| 1 | 0.833 | 0.000 | 0.833 | 0.000 | 0.000 | 0.833 |
| 2 | 1.000 | 0.000 | 0.083 | 0.000 | 0.000 | 1.000 |
| 3 | 1.000 | 0.000 | 0.333 | 0.000 | 0.167 | 1.000 |
| 4 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 |
| 5 | 1.000 | 0.000 | 0.083 | 0.000 | 0.000 | 1.000 |
| 6 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 |
| 7 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 |
| 8 | 1.000 | 0.000 | 1.000 | 0.000 | 0.750 | 1.000 |
| 9 | 1.000 | 0.000 | 0.667 | 0.000 | 0.000 | 1.000 |
| 10 | 1.000 | 0.000 | 0.833 | 0.000 | 0.000 | 1.000 |
| 11 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| 12 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 |
| 13 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| Total | 0.987 | 0.000 | 0.449 | 0.000 | 0.071 | 0.987 |

SFACD short Efficiency Scores

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | mon4 | mon5 | montot |
| dnsp |  |  |  |  |  |  |
| 1 | 0.833 | 0.000 | 0.833 | 0.000 | 0.000 | 0.833 |
| 2 | 1.000 | 0.000 | 0.083 | 0.000 | 0.000 | 1.000 |
| 3 | 1.000 | 0.000 | 0.333 | 0.000 | 0.167 | 1.000 |
| 4 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 |
| 5 | 1.000 | 0.000 | 0.083 | 0.000 | 0.000 | 1.000 |
| 6 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 |
| 7 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 |
| 8 | 1.000 | 0.000 | 1.000 | 0.000 | 0.750 | 1.000 |
| 9 | 1.000 | 0.000 | 0.667 | 0.000 | 0.000 | 1.000 |
| 10 | 1.000 | 0.000 | 0.833 | 0.000 | 0.000 | 1.000 |
| 11 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| 12 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 |
| 13 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| Total | 0.987 | 0.000 | 0.449 | 0.000 | 0.071 | 0.987 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_lb | eff\_ub |
| Country code |  |  |  |
| 1.Aust | .7716106 | .7267215 | .821819 |
| 2.NZ | .7568937 | .7133218 | .8071775 |
| 3.Ontario | .7717685 | .7268168 | .8219009 |
| Total | .7671018 | .7225931 | .8172974 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_lb | eff\_ub |
| dnsp |  |  |  |
| 1 | .5786046 | .5445206 | .6154219 |
| 2 | .6551444 | .6165515 | .6968319 |
| 3 | .8451719 | .7953851 | .8989512 |
| 4 | .7942638 | .7474758 | .8448037 |
| 5 | .7408996 | .6972553 | .788044 |
| 6 | .6842642 | .6439561 | .7278048 |
| 7 | .6900961 | .6494444 | .7340077 |
| 8 | .6855875 | .6452014 | .7292122 |
| 9 | .9631291 | .9134578 | 1.038425 |
| 10 | .8814727 | .8295501 | .9375655 |
| 11 | .7239146 | .6812707 | .7699782 |
| 12 | .9200676 | .8661392 | .9790265 |
| 13 | .8683218 | .8171716 | .9235746 |
| Total | .7716106 | .7267215 | .821819 |

SFACD short Elasticities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| Country code |  |  |  |  |  |  |
| 1.Aust | 0.074 | 0.268 | 0.026 | 0.542 | 0.028 | 0.938 |
| 2.NZ | 0.074 | 0.268 | 0.026 | 0.542 | 0.028 | 0.938 |
| 3.Ontario | 0.074 | 0.268 | 0.026 | 0.542 | 0.028 | 0.938 |
| Total | 0.074 | 0.268 | 0.026 | 0.542 | 0.028 | 0.938 |

SFATLG short Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_lb | eff\_ub |
| dnsp |  |  |  |
| 1 | .5523842 | .5228714 | .5840276 |
| 2 | .4413545 | .4177738 | .4666376 |
| 3 | .8113824 | .7680319 | .8578627 |
| 4 | .6869668 | .6502635 | .7263198 |
| 5 | .5514938 | .5220286 | .5830863 |
| 6 | .8066884 | .7635887 | .8528998 |
| 7 | .7696661 | .7285444 | .8137566 |
| 8 | .6026762 | .5704764 | .6372007 |
| 9 | .9209573 | .8718742 | .9738948 |
| 10 | .7499225 | .7098556 | .792882 |
| 11 | .5815446 | .5504737 | .6148584 |
| 12 | .9720525 | .9294028 | 1.047423 |
| 13 | .5585109 | .5286708 | .5905054 |
| Total | .6927385 | .6564504 | .7339504 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_ub | eff\_lb |
| Country code |  |  |  |
| 1.Aust | .6927385 | .7339504 | .6564504 |
| 2.NZ | .7127059 | .7541821 | .6749888 |
| 3.Ontario | .7229605 | .7645978 | .6844623 |
| Total | .7133257 | .7548222 | .6755418 |

SFATLG short Elasticities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| Country code |  |  |  |  |  |  |
| 1.Aust | -0.705 | 0.411 | -0.300 | 1.322 | 0.052 | 2.059 |
| 2.NZ | 0.508 | 0.235 | -0.102 | 0.333 | 0.057 | 1.305 |
| 3.Ontario | -0.043 | 0.177 | 0.454 | 0.388 | 0.006 | 1.361 |
| Total | -0.013 | 0.245 | 0.120 | 0.570 | 0.032 | 1.492 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| dnsp |  |  |  |  |  |  |
| 1 | -0.682 | 0.326 | -0.177 | 1.349 | 0.036 | 2.161 |
| 2 | -1.004 | 0.423 | -0.514 | 1.737 | 0.035 | 2.392 |
| 3 | -0.841 | 0.293 | -0.266 | 1.584 | 0.016 | 2.352 |
| 4 | -0.914 | 0.403 | 0.042 | 1.179 | 0.042 | 1.899 |
| 5 | -0.847 | 0.418 | -0.426 | 1.515 | 0.048 | 2.187 |
| 6 | -0.416 | 0.412 | 0.942 | -0.141 | 0.082 | 0.672 |
| 7 | -0.296 | 0.446 | 0.132 | 0.461 | 0.093 | 1.221 |
| 8 | -0.374 | 0.324 | -1.267 | 2.060 | 0.029 | 2.805 |
| 9 | -0.421 | 0.423 | -0.378 | 1.096 | 0.072 | 1.828 |
| 10 | -1.232 | 0.566 | -0.046 | 1.400 | 0.075 | 2.101 |
| 11 | -0.615 | 0.483 | -1.035 | 1.856 | 0.063 | 2.557 |
| 12 | -0.581 | 0.403 | 0.260 | 0.741 | 0.057 | 1.571 |
| 13 | -0.936 | 0.430 | -1.170 | 2.348 | 0.033 | 3.026 |
| Total | -0.705 | 0.411 | -0.300 | 1.322 | 0.052 | 2.059 |

SFATLG short Monotonicity Violations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | mon4 | mon5 | montot |
| Country code |  |  |  |  |  |  |
| 1.Aust | 0.987 | 0.000 | 0.679 | 0.077 | 0.000 | 0.987 |
| 2.NZ | 0.158 | 0.000 | 0.675 | 0.316 | 0.000 | 0.925 |
| 3.Ontario | 0.514 | 0.026 | 0.147 | 0.198 | 0.322 | 0.839 |
| Total | 0.504 | 0.012 | 0.425 | 0.209 | 0.153 | 0.898 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | mon4 | mon5 | montot |
| dnsp |  |  |  |  |  |  |
| 1 | 1.000 | 0.000 | 0.917 | 0.000 | 0.000 | 1.000 |
| 2 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| 3 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| 4 | 1.000 | 0.000 | 0.333 | 0.000 | 0.000 | 1.000 |
| 5 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| 6 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 |
| 7 | 0.833 | 0.000 | 0.000 | 0.000 | 0.000 | 0.833 |
| 8 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| 9 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| 10 | 1.000 | 0.000 | 0.583 | 0.000 | 0.000 | 1.000 |
| 11 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| 12 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 |
| 13 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| Total | 0.987 | 0.000 | 0.679 | 0.077 | 0.000 | 0.987 |