5 Outputs Opex Cost Function - long period

LSECD long Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_lb | eff\_ub |
| dnsp |  |  |  |
| 1 | .5144797 | .3729668 | .6559926 |
| 2 | .5924546 | .4202162 | .7646928 |
| 3 | .7943576 | .6410435 | .9476717 |
| 4 | .6893929 | .5495932 | .8291927 |
| 5 | .7023044 | .5872588 | .8173499 |
| 6 | .5732191 | .4513457 | .6950924 |
| 7 | .6763119 | .5232602 | .8293636 |
| 8 | .7358776 | .5765773 | .8951778 |
| 9 | 1 | 1 | 1 |
| 10 | .9497024 | .7609965 | 1.138408 |
| 11 | .8508246 | .7061819 | .9954672 |
| 12 | .8679832 | .6741483 | 1.061818 |
| 13 | .9322332 | .7423586 | 1.122108 |
| Total | .7599339 | .6158421 | .9040258 |

LSECD long Elasticities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| Country code |  |  |  |  |  |  |
| 1.Aust | 0.503 | 0.206 | 0.154 | 0.080 | 0.018 | 0.961 |
| 2.NZ | 0.503 | 0.206 | 0.154 | 0.080 | 0.018 | 0.961 |
| 3.Ontario | 0.503 | 0.206 | 0.154 | 0.080 | 0.018 | 0.961 |
| Total | 0.503 | 0.206 | 0.154 | 0.080 | 0.018 | 0.961 |

LSETLG long Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_lb | eff\_ub |
| dnsp |  |  |  |
| 1 | .484084 | .3441059 | .6240619 |
| 2 | .5052308 | .3499034 | .6605582 |
| 3 | .723067 | .5555781 | .8905559 |
| 4 | .6577923 | .5181746 | .7974101 |
| 5 | .6231301 | .5062647 | .7399955 |
| 6 | .6202607 | .4533081 | .7872132 |
| 7 | .7391509 | .5516205 | .9266814 |
| 8 | .5923531 | .4327138 | .7519923 |
| 9 | 1 | 1 | 1 |
| 10 | .9608358 | .7673578 | 1.154314 |
| 11 | .773104 | .6343327 | .9118752 |
| 12 | .8759445 | .6706876 | 1.081201 |
| 13 | .7075124 | .5235586 | .8914661 |
| Total | .7124973 | .5621235 | .8628711 |

LSETLG long Elasticities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| Country code |  |  |  |  |  |  |
| 1.Aust | 0.098 | 0.328 | 0.320 | 0.197 | 0.001 | 1.137 |
| 2.NZ | 0.657 | 0.216 | 0.121 | -0.059 | 0.014 | 0.877 |
| 3.Ontario | 0.155 | 0.190 | 0.370 | 0.222 | 0.013 | 1.158 |
| Total | 0.299 | 0.227 | 0.282 | 0.129 | 0.011 | 1.066 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| dnsp |  |  |  |  |  |  |
| 1 | 0.115 | 0.288 | 0.333 | 0.196 | -0.003 | 1.129 |
| 2 | -0.235 | 0.371 | 0.375 | 0.427 | -0.005 | 1.360 |
| 3 | -0.187 | 0.313 | 0.412 | 0.390 | -0.008 | 1.318 |
| 4 | -0.057 | 0.314 | 0.409 | 0.288 | 0.001 | 1.240 |
| 5 | -0.087 | 0.360 | 0.349 | 0.322 | -0.003 | 1.263 |
| 6 | 0.472 | 0.216 | 0.357 | -0.044 | 0.018 | 0.952 |
| 7 | 0.504 | 0.287 | 0.219 | -0.033 | 0.011 | 0.940 |
| 8 | -0.046 | 0.374 | 0.215 | 0.355 | -0.007 | 1.253 |
| 9 | 0.280 | 0.325 | 0.242 | 0.107 | 0.004 | 1.056 |
| 10 | 0.211 | 0.343 | 0.379 | 0.018 | 0.005 | 0.965 |
| 11 | 0.165 | 0.388 | 0.211 | 0.154 | 0.001 | 1.068 |
| 12 | 0.304 | 0.265 | 0.356 | 0.028 | 0.011 | 0.978 |
| 13 | -0.170 | 0.415 | 0.300 | 0.355 | -0.009 | 1.252 |
| Total | 0.098 | 0.328 | 0.320 | 0.197 | 0.001 | 1.137 |

LSETLG long Monotonicity Violations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | mon4 | mon5 | montot |
| Country code |  |  |  |  |  |  |
| 1.Aust | 0.457 | 0.000 | 0.000 | 0.167 | 0.504 | 0.722 |
| 2.NZ | 0.041 | 0.000 | 0.173 | 0.711 | 0.061 | 0.795 |
| 3.Ontario | 0.144 | 0.000 | 0.000 | 0.029 | 0.010 | 0.170 |
| Total | 0.179 | 0.000 | 0.054 | 0.270 | 0.131 | 0.483 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | mon4 | mon5 | montot |
| dnsp |  |  |  |  |  |  |
| 1 | 0.056 | 0.000 | 0.000 | 0.000 | 0.889 | 0.889 |
| 2 | 1.000 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 3 | 1.000 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 4 | 1.000 | 0.000 | 0.000 | 0.000 | 0.389 | 1.000 |
| 5 | 1.000 | 0.000 | 0.000 | 0.000 | 0.944 | 1.000 |
| 6 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 |
| 7 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 |
| 8 | 0.889 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 9 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 10 | 0.000 | 0.000 | 0.000 | 0.167 | 0.000 | 0.167 |
| 11 | 0.000 | 0.000 | 0.000 | 0.000 | 0.333 | 0.333 |
| 12 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 13 | 1.000 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| Total | 0.457 | 0.000 | 0.000 | 0.167 | 0.504 | 0.722 |

SFACD long Efficiency Scores

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | mon4 | mon5 | montot |
| dnsp |  |  |  |  |  |  |
| 1 | 0.056 | 0.000 | 0.000 | 0.000 | 0.889 | 0.889 |
| 2 | 1.000 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 3 | 1.000 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 4 | 1.000 | 0.000 | 0.000 | 0.000 | 0.389 | 1.000 |
| 5 | 1.000 | 0.000 | 0.000 | 0.000 | 0.944 | 1.000 |
| 6 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 |
| 7 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 |
| 8 | 0.889 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 9 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 10 | 0.000 | 0.000 | 0.000 | 0.167 | 0.000 | 0.167 |
| 11 | 0.000 | 0.000 | 0.000 | 0.000 | 0.333 | 0.333 |
| 12 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 13 | 1.000 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| Total | 0.457 | 0.000 | 0.000 | 0.167 | 0.504 | 0.722 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_lb | eff\_ub |
| Country code |  |  |  |
| 1.Aust | .7673497 | .7256705 | .8170241 |
| 2.NZ | .7513864 | .7106368 | .8007248 |
| 3.Ontario | .8203643 | .7750904 | .8722744 |
| Total | .7875812 | .7444826 | .8382138 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_lb | eff\_ub |
| dnsp |  |  |  |
| 1 | .5248333 | .4952942 | .5566277 |
| 2 | .6182719 | .5834738 | .6557269 |
| 3 | .9165415 | .8650804 | .9722509 |
| 4 | .7279106 | .6869416 | .7720073 |
| 5 | .7133674 | .6732169 | .7565832 |
| 6 | .5872709 | .5542176 | .6228478 |
| 7 | .6047503 | .5707131 | .641386 |
| 8 | .742227 | .7004523 | .7871911 |
| 9 | .9689807 | .9232903 | 1.046123 |
| 10 | .9260137 | .8742231 | .9826151 |
| 11 | .7658541 | .7227496 | .8122496 |
| 12 | .9081663 | .8570999 | .9632527 |
| 13 | .9713587 | .926964 | 1.052453 |
| Total | .7673497 | .7256705 | .8170241 |

SFACD long Elasticities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| Country code |  |  |  |  |  |  |
| 1.Aust | 0.266 | 0.114 | 0.531 | 0.020 | 0.030 | 0.960 |
| 2.NZ | 0.266 | 0.114 | 0.531 | 0.020 | 0.030 | 0.960 |
| 3.Ontario | 0.266 | 0.114 | 0.531 | 0.020 | 0.030 | 0.960 |
| Total | 0.266 | 0.114 | 0.531 | 0.020 | 0.030 | 0.960 |

SFATLG long Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_lb | eff\_ub |
| dnsp |  |  |  |
| 1 | .547352 | .5177662 | .5791006 |
| 2 | .377122 | .3567375 | .3989965 |
| 3 | .8599365 | .8134547 | .9098163 |
| 4 | .5451149 | .51565 | .5767337 |
| 5 | .4975931 | .4706968 | .5264554 |
| 6 | .7297033 | .6902609 | .772029 |
| 7 | .7119731 | .6734892 | .7532704 |
| 8 | .8054551 | .7619181 | .8521747 |
| 9 | .9653364 | .9192958 | 1.033229 |
| 10 | .930263 | .8803408 | .9847755 |
| 11 | .7493179 | .7088153 | .7927813 |
| 12 | .973663 | .9316896 | 1.053569 |
| 13 | .8537728 | .8076242 | .903295 |
| Total | .7343541 | .6959799 | .7797097 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | eff | eff\_ub | eff\_lb |
| Country code |  |  |  |
| 1.Aust | .7343541 | .7797097 | .6959799 |
| 2.NZ | .7153829 | .759752 | .6780902 |
| 3.Ontario | .7878635 | .8360453 | .7463653 |
| Total | .7538839 | .8002758 | .7143614 |

SFATLG long Elasticities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| Country code |  |  |  |  |  |  |
| 1.Aust | 0.142 | 0.246 | 0.237 | 0.103 | 0.027 | 0.800 |
| 2.NZ | 0.451 | 0.060 | 0.630 | -0.061 | 0.036 | 1.026 |
| 3.Ontario | 0.378 | 0.051 | 0.286 | 0.222 | 0.009 | 1.168 |
| Total | 0.350 | 0.095 | 0.383 | 0.109 | 0.021 | 1.045 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | ely4 | ely5 | elY |
| dnsp |  |  |  |  |  |  |
| 1 | 0.364 | 0.111 | 0.211 | 0.162 | 0.002 | 1.022 |
| 2 | 0.201 | 0.246 | -0.271 | 0.387 | 0.017 | 0.907 |
| 3 | 0.414 | 0.099 | -0.179 | 0.396 | -0.013 | 1.131 |
| 4 | 0.031 | 0.282 | 0.174 | 0.156 | 0.025 | 0.763 |
| 5 | 0.136 | 0.269 | -0.033 | 0.239 | 0.024 | 0.810 |
| 6 | -0.400 | 0.428 | 1.110 | -0.379 | 0.073 | 0.327 |
| 7 | -0.139 | 0.368 | 0.801 | -0.260 | 0.069 | 0.458 |
| 8 | 0.680 | 0.041 | -0.433 | 0.494 | -0.002 | 1.268 |
| 9 | 0.082 | 0.283 | 0.397 | -0.019 | 0.045 | 0.685 |
| 10 | -0.218 | 0.400 | 0.766 | -0.230 | 0.043 | 0.444 |
| 11 | 0.268 | 0.235 | 0.120 | 0.128 | 0.033 | 0.838 |
| 12 | -0.047 | 0.284 | 0.754 | -0.155 | 0.039 | 0.657 |
| 13 | 0.469 | 0.146 | -0.341 | 0.416 | -0.001 | 1.085 |
| Total | 0.142 | 0.246 | 0.237 | 0.103 | 0.027 | 0.800 |

SFATLG long Monotonicity Violations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | mon4 | mon5 | montot |
| Country code |  |  |  |  |  |  |
| 1.Aust | 0.329 | 0.009 | 0.363 | 0.368 | 0.188 | 0.778 |
| 2.NZ | 0.056 | 0.345 | 0.032 | 0.561 | 0.029 | 0.801 |
| 3.Ontario | 0.065 | 0.316 | 0.167 | 0.057 | 0.213 | 0.625 |
| Total | 0.118 | 0.260 | 0.167 | 0.281 | 0.150 | 0.712 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | mon4 | mon5 | montot |
| dnsp |  |  |  |  |  |  |
| 1 | 0.000 | 0.000 | 0.000 | 0.056 | 0.333 | 0.333 |
| 2 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 |
| 3 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 | 1.000 |
| 4 | 0.333 | 0.000 | 0.000 | 0.000 | 0.000 | 0.333 |
| 5 | 0.000 | 0.000 | 0.667 | 0.000 | 0.000 | 0.667 |
| 6 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 |
| 7 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 |
| 8 | 0.000 | 0.111 | 1.000 | 0.000 | 0.667 | 1.000 |
| 9 | 0.111 | 0.000 | 0.000 | 0.722 | 0.000 | 0.722 |
| 10 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 |
| 11 | 0.000 | 0.000 | 0.056 | 0.000 | 0.000 | 0.056 |
| 12 | 0.833 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 |
| 13 | 0.000 | 0.000 | 1.000 | 0.000 | 0.444 | 1.000 |
| Total | 0.329 | 0.009 | 0.363 | 0.368 | 0.188 | 0.778 |