IEEE300

ramp\_rate = 0.3

P=30 , R=16 , round=9

length of recovery seq 9

randomly delete 50 bus

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Recovery Strategy | IEEE 300 Power Case (N, E) | | | | | | | | | |
| (243,291) | (228,285) | (227,269) | (219,274) | (237,278) | (221,266) | (207,252) | (202,253) | (241,294) | (223,272) |
| *SRG based* | **0.851** | **0.823** | **0.884** | **0.847** | **0.918** | **0.928** | **0.841** | **0.753** | **0.924** | **0.860** |
| *RCC based* | **0.851** | **0.827** | **0.884** | **0.847** | **0.918** | **0.929** | **0.841** | **0.754** | **0.924** | **0.860** |
| *high degree based* | 0.574 | 0.754 | 0.708 | 0.758 | 0.768 | 0.555 | 0.594 | 0.674 | 0.819 | 0.648 |
| *low degree based* | 0.808 | 0.760 | 0.783 | 0.749 | 0.784 | 0.831 | 0.746 | 0.675 | 0.846 | 0.783 |
| *high load based* | 0.594 | 0.820 | **0.884** | **0.847** | 0.916 | 0.884 | 0.832 | 0.749 | 0.588 | 0.790 |
| *low load based* | 0.780 | 0.753 | 0.572 | 0.738 | 0.747 | 0.793 | 0.583 | 0.659 | 0.537 | 0.745 |
| *random based* | 0.676 | 0.692 | 0.689 | 0.763 | 0.697 | 0.786 | 0.690 | 0.661 | 0.737 | 0.695 |
| *initial state* | 0.781 | 0.754 | 0.705 | 0.739 | 0.761 | 0.797 | 0.729 | 0.659 | 0.817 | 0.753 |

ramp\_rate = 0.3

P=30 , R=16 , round=9

length of recovery seq 9

randomly delete 30 bus

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Recovery Strategy | IEEE 118 Power Case (N,E) | | | | | | | | | |
| (78,88) | (73,83) | (66,82) | (82,101) | (82,101) | (73,90) | (73,82) | (69,83) | (86,107) | (65,70) |
| *SRG based* | **0.678** | **0.654** | **0.702** | **0.849** | **0.651** | **0.693** | **0.761** | **0.759** | **0.868** | **0.688** |
| *RCC based* | **0.678** | **0.654** | **0.702** | **0.849** | **0.651** | **0.694** | **0.761** | **0.759** | **0.868** | **0.688** |
| *high degree based* | 0.250 | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 | 0.011 | 0.000 | 0.769 | 0.643 |
| *low degree based* | 0.618 | 0.599 | 0.637 | 0.775 | 0.634 | 0.645 | 0.666 | 0.683 | 0.787 | 0.592 |
| *high load based* | 0.249 | 0.032 | 0.000 | 0.000 | 0.633 | 0.000 | 0.011 | 0.000 | **0.868** | **0.688** |
| *low load based* | 0.235 | 0.458 | 0.575 | 0.719 | 0.585 | 0.535 | 0.634 | 0.644 | 0.712 | 0.545 |
| *random based* | 0.277 | 0.304 | 0.353 | 0.531 | 0.563 | 0.368 | 0.424 | 0.246 | 0.777 | 0.615 |
| *initial state* | 0.568 | 0.500 | 0.575 | 0.719 | 0.585 | 0.585 | 0.623 | 0.628 | 0.689 | 0.527 |

ramp\_rate = 0.3

P=16 , R=10 , round=5

length of recovery seq 5

randomly delete 10 bus

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Recovery Strategy | IEEE 57 Power Case (N,E) | | | | | | | | | |
| (40,49) | (42,50) | (43,47) | (47,52) | (43,52) | (44,51) | (40,46) | (35,39) | (37,41) | (39,43) |
| *SRG based* | **0.572** | **0.951** | **0.966** | **0.986** | **0.969** | **0.978** | **0.616** | **0.862** | **0.960** | **0.824** |
| *RCC based* | **0.572** | **0.951** | **0.966** | **0.986** | **0.969** | **0.978** | **0.616** | **0.862** | **0.960** | **0.824** |
| *high degree based* | 0.000 | 0.910 | **0.966** | 0.984 | 0.903 | 0.974 | 0.000 | 0.847 | 0.955 | 0.807 |
| *low degree based* | 0.440 | 0.555 | 0.855 | 0.902 | 0.957 | 0.955 | 0.000 | 0.841 | 0.863 | 0.506 |
| *high load based* | 0.000 | **0.951** | **0.966** | **0.986** | **0.969** | **0.978** | 0.000 | **0.862** | **0.960** | **0.824** |
| *low load based* | 0.403 | 0.517 | 0.809 | 0.893 | 0.903 | 0.945 | 0.564 | 0.797 | 0.863 | 0.450 |
| *random based* | 0.313 | 0.786 | 0.916 | 0.939 | 0.936 | 0.962 | 0.241 | 0.830 | 0.934 | 0.656 |
| *initial state* | 0.401 | 0.512 | 0.795 | 0.879 | 0.901 | 0.936 | 0.549 | 0.777 | 0.826 | 0.442 |

|  |  |  |  |
| --- | --- | --- | --- |
| Bus system | IEEE 57 | IEEE 118 | IEEE 300 |
| *# Bus* | 57 | 118 | 300 |
| *# Branch* | 80 | 186 | 411 |
| *# Generation bus* | 7 | 54 | 69 |
| *# Demand bus* | 50 | 64 | 191 |