# Resource Efficiency Improvement Summary

## A. Assumptions

- Total units (tasks): 100 (fixed)  
- Original effort per unit: 100 MD  
- Improved effort per unit: 65 MD or 75 MD  
- Working days per resource: 220 days  
- Utilization rates: 42.4% (current), 50% (target)

## B. Total Effort Required

|  |  |  |
| --- | --- | --- |
| Scenario | Effort per Unit (MD) | Total Effort (MD) |
| Original (100 units) | 100 | 10000 |
| Improved (100 units @ 75 MD) | 75 | 7500 |
| Improved (100 units @ 65 MD) | 65 | 6500 |

## C. Resources Required

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Scenario | Total Effort (MD) | Utilization | Effective MD/Resource | Required Resources |
| Baseline (100 units @ 100 MD) | 10000 | 42.4% | 93.28 | 107.2 |
| Improved (100 @ 75 MD) | 7500 | 50% | 110 | 68.2 |
| Improved (100 @ 65 MD) | 6500 | 50% | 110 | 59.1 |

## D. Percentage Resource Reduction

|  |  |  |
| --- | --- | --- |
| Scenario | Reduction from Baseline | % Reduction |
| 75 MD @ 50% Utilization | 107.2 → 68.2 | 36.4% |
| 65 MD @ 50% Utilization | 107.2 → 59.1 | 44.9% |