
Algorithm 1 Diffusion Policy

```
1: procedure PERIOD ITERATION
2:    $period \leftarrow 0$ 
3:    $futurevalues[state] \leftarrow sum(state)$ 
4:    $currentvalues[state] \leftarrow 0$ 
5: top:
6:   for all  $state$ :
7:     for all  $depletion$ :
8:        $order1=0$ ,  $value1= revenue + futurevalue[futurestate]$ ;
9:       if  $order2 = cvalue - sum(state) + depletion > 0$  then
10:         $value2 = revenue + futurevalue[0] + marginal \cdot sum(futurestate)$ ;
11:         $currentvalue[state] = max(value1, value2)$ ;
12:       $currentvalue[state] = max(currentvalue[state], value1)$ ;
13: loop:
14:    $period \leftarrow period + 1$ ;
15:    $futurevalues[state] \leftarrow currentvalues[state]$ 
16: goto top.
```
