

MATLAB Code and Results/Graph:

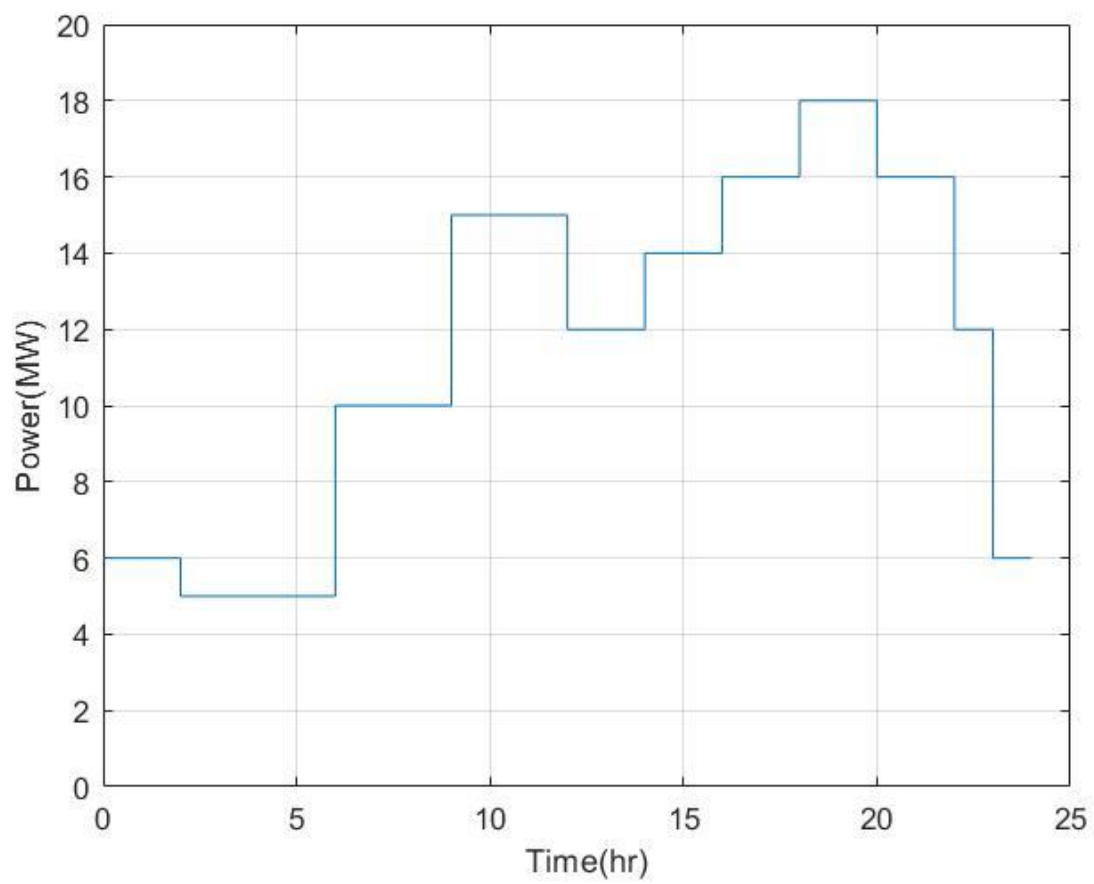
MATLAB Code: Using Barcycle function

```
function barcycle(data)
L=length(data);
tt = [data(:,1) data(:,2)];
t = sort(reshape(tt, 1, 2*L));
PP=data(:,3);
for n = 1:L
P(2*n-1)=PP(n);
P(2*n)=PP(n);
end
plot(t,P)
```

```
clear all;
clc;
data=[0 2 6
2 6 5
6 9 10
9 12 15
12 14 12
14 16 14
16 18 16
18 20 18
20 22 16
22 23 12
23 24 6];
p=data(:,3);
Dt=data(:,2)- data(:,1);
W=p'*Dt;
Pavg = W/sum(Dt)
Peak = max(p)
Load_Factor = Pavg/Peak *100
barcycle(data);
axis( [ 0 25 0 20 ] );
xlabel('Time(hr)');
ylabel('Power(MW)');
grid on
```

OUTPUT:

```
Command Window
New to MATLAB? See resources for Getting Started.
Pavg =
    11.5417
Peak =
    18
Load_Factor =
    64.1204
```



Load Duration Curve:

MATLAB Code:

```
clear all;  
clc;  
data=[ 0 2 18  
2 6 16  
6 9 15  
9 11 14  
11 14 12  
14 17 10  
17 20 6  
20 24 5];  
p=data(:,3);  
barcycle(data);  
axis( [ 0 25 0 20 ] );  
title('Load Duration Curve');  
xlabel('Time');  
ylabel('Power');  
grid on
```

OUTPUT:

