IEGS-118-20:

	power load profiles (1-24h):	gas load profiles (1-24h):
1	4700	5021.6
2	4460	4709.6
3	3980	4468.0
4	3500	4260.8
5	3900	4329.6
6	4100	4536.0
7	4700	4986.4
8	5180	5470.4
9	5420	6023.2
10	5780	6473.6
11	5840	6854.4
12	5540	7164.8
13	5300	7269.6
14	5060	7338.4
15	5780	7580.0
16	5900	7787.2
17	5600	7892.0
18	5840	7476.8
19	6140	7406.4
20	6380	7178.4
21	6500	7345.6
22	5900	6784.0
23	5720	5948.0
24	5420	5748.0

The power/gas load profile refers to the total power/gas loads at time t (t=1,…,24).

Wind power generation data:

Considering 1) the data are available online freely, 2) we are not permitted to publish their data (although the data are available freely), 3) we use a myriad of renewable power generation data in our paper as inputs (1000-10000 samples, each sample corresponding to a group of wind power generation data), thus we provide only the names of these wind power generation datasets and some statistical information of these data.

The wind power generation data are partly taken from the following datasets and partly generated based on the above data.

IEGS-118-20 wind farm 1:

1). The following outputs of wind generators are integrated into one wind farm: # 93609, # 94404, # 94683, # 95221, # 94943, # 96020, # 96540, # 96019.

2). The average output of the integrated wind farm is 152.0283 MW.

3). The maximum wind power output is 244 MW.

IEGS-118-20 wind farm 2:

1). The following outputs of wind generators are integrated into one wind farm: # 113243, # 113180, # 113179, # 113178, # 113177, # 113115, # 113114 # 113054, # 113053, # 112994, # 112993, # 112932, # 112931.

2). The average output of the integrated wind farm is 249.2278 MW.

3). The maximum wind power output is 396 MW.

IEGS-118-20 wind farm 3:

1). The following outputs of wind generators are integrated into one wind farm: # 124844, # 124941, # 124892, # 124891, # 124890, # 124845, # 124846, # 124889.

2). The average output of the integrated wind farm is 70.9727 MW.

3). The maximum wind power output is 256 MW.

IEGS-118-20 wind farm 4:

1). The following outputs of wind generators are integrated into one wind farm: # 118435, # 118535, # 118534, # 118533, # 118436.

2). The average output of the integrated wind farm is 72.5314 MW.

3). The maximum wind power output is 156 MW.

IEGS-118-20 wind farm 5:

1). The following outputs of wind generators are integrated into one wind farm: # 121766, # 121767, # 121934, # 121850, # 121851.

2). The average output of the integrated wind farm is 104.5124 MW.

3). The maximum wind power output is 156 MW.

Reference:

National Renewable Energy Laboratory (NREL). Western Wind Data Set [Online]. Available: https://www.nrel.gov/grid/western-wind-data.html

This file includes load profiles of power and gas network (IEGS-118-20).

Data information is provided by Rongpeng Liu at The University of Hong Kong (2021)

For more information about the IEGS-118-20, see the follow link: https://sites.google.com/site/rongpengliu1991/