

```
import requests
import pprint
import json
import pandas as pd
```

```
service_key = 'QLMq9%2Bv0ceRYfwErRiHJm%2BBA3yLLRrIloTFQfZXZcRks3zjgCwTZFbHwSudID1JgsIRdqw8wTh%2FRm%2FZ66Mx9A%3D%3D'
openyear = ['2013', '2014', '2015', '2016', '2017', '2018', '2019', '2020', '2021', '2022', '2023', '2024']
openmonth = ['01', '02', '03', '04', '05', '06', '07', '08', '09', '10', '11', '12']
```

```
urls = []
for i in range(len(openyear)):
    for j in range(len(openmonth)):
        url = f'https://apis.data.go.kr/B551210/supplyValuePerformanceList/getSupplyValuePerformanceList?serviceKey={service_key}&openYr={openyear[i]}&openMo={openmonth[j]}'
        urls.append(url)
```

```
datas = []

for i in range(len(urls)):
    response = requests.get(urls[i])
    contents = response.text
    json_ob = json.loads(contents)
    aa = json_ob['response']['body']['items']['item']
    for j in range(len(aa)):
        try:
            splCalMaxKcal = aa[j]['splCalMaxKcal']
        except:
            splCalMaxKcal = ''
        splMonth = aa[j]['splMonth']
        try:
            splCalMaxMj = aa[j]['splCalMaxMj']
        except:
            splCalMaxMj = ''
        splYear = aa[j]['splYear']
        try:
            splCalMinMj = aa[j]['splCalMinMj']
        except:
            splCalMinMj = ''
        try:
            splCalCpnm = aa[j]['splCalCpnm']
        except:
            splCalCpnm = ''
        try:
            splCalMinKcal = aa[j]['splCalMinKcal']
        except:
            splCalMinKcal = ''
        data = [splCalMaxKcal, splMonth, splCalMaxMj, splYear, splCalMinMj, splCalCpnm, splCalMinKcal]
        print(data)
        datas.append(data)
```

스트리밍 출력 내용이 길어서 마지막 5000줄이 삭제되었습니다.

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['10293.303 ', '01', '43.096 ', '2013', '38.907 ', '합계', '9292.843 ']
['10313.366 ', '02', '43.180 ', '2013', '38.986 ', '㈜경동도시가스', '9311.566 ']
['10285.182 ', '02', '43.062 ', '2013', '38.876 ', '㈜대륜이엔에스', '9285.264 ']
['10307.395 ', '02', '43.155 ', '2013', '38.962 ', '㈜부산도시가스', '9305.994 ']
['10282.077 ', '02', '43.049 ', '2013', '38.863 ', '㈜삼천리', '9282.366 ']
['10276.584 ', '02', '43.026 ', '2013', '38.842 ', '㈜에스코', '9277.240 ']
['10312.888 ', '02', '43.178 ', '2013', '38.984 ', '㈜지에스이', '9311.120 ']
['10278.494 ', '02', '43.034 ', '2013', '38.849 ', '㈜충남도도시가스', '9279.022 ']
['10303.812 ', '02', '43.140 ', '2013', '38.948 ', '㈜해양도시가스', '9302.650 ']
['10280.883 ', '02', '43.044 ', '2013', '38.859 ', '강남도시가스㈜', '9281.252 ']
['10274.673 ', '02', '43.018 ', '2013', '38.834 ', '강원도시가스㈜', '9275.456 ']
['10310.500 ', '02', '43.168 ', '2013', '38.974 ', '경남에너지㈜(LNG + NG)', '9308.892 ']
['10276.584 ', '02', '43.026 ', '2013', '38.842 ', '경북도시가스㈜', '9277.240 ']
['10283.749 ', '02', '43.056 ', '2013', '38.870 ', '군산도시가스㈜(LNG + NG)', '9283.926 ']
['10290.675 ', '02', '43.085 ', '2013', '38.897 ', '대성에너지㈜', '9290.390 ']
['10303.095 ', '02', '43.137 ', '2013', '38.946 ', '대화도시가스㈜', '9301.981 ']
['10297.841 ', '02', '43.115 ', '2013', '38.925 ', '목포도시가스㈜', '9297.078 ']
['10309.067 ', '02', '43.162 ', '2013', '38.969 ', '서라벌도시가스㈜', '9307.554 ']
['10282.316 ', '02', '43.050 ', '2013', '38.864 ', '서울도시가스㈜', '9282.589 ']
['10283.271 ', '02', '43.054 ', '2013', '38.868 ', '서해도시가스㈜(LNG + NG)', '9283.480 ']
['10289.004 ', '02', '43.078 ', '2013', '38.890 ', '영남에너지서비스㈜ 구미', '9288.831 ']
['10308.828 ', '02', '43.161 ', '2013', '38.968 ', '영남에너지서비스㈜ 포항', '9307.331 ']
['10281.599 ', '02', '43.047 ', '2013', '38.862 ', '인천도시가스㈜', '9281.920 ']
['10305.962 ', '02', '43.149 ', '2013', '38.957 ', '전남도시가스㈜', '9304.657 ']
['10294.975 ', '02', '43.103 ', '2013', '38.914 ', '전북도시가스㈜', '9294.403 ']
['10294.019 ', '02', '43.099 ', '2013', '38.910 ', '전북에너지서비스㈜', '9293.511 ']
['10280.644 ', '02', '43.043 ', '2013', '38.858 ', '충부도시가스㈜', '9281.029 ']
['10357.075 ', '02', '43.363 ', '2013', '39.156 ', '참빛영동도시가스㈜(LNG)', '9352.357 ']
['10282.077 ', '02', '43.049 ', '2013', '38.863 ', '참빛원주도시가스㈜', '9282.366 ']
['10280.405 ', '02', '43.042 ', '2013', '38.857 ', '참빛충북도시가스㈜', '9280.806 ']
['10279.927 ', '02', '43.040 ', '2013', '38.855 ', '충청에너지서비스㈜', '9280.360 ']
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['10280.644 ', '02', '43.043 ', '2013', '38.858 ', '코원에너지서비스㈜', '9281.029 ']
['10289.547 ', '02', '43.080 ', '2013', '38.893 ', '합계', '9289.337 ']
['10256.282 ', '03', '42.941 ', '2013', '38.763 ', '㈜경동도시가스', '9258.293 ']
['10193.465 ', '03', '42.678 ', '2013', '38.517 ', '㈜대륜이엔에스', '9199.670 ']
['10240.040 ', '03', '42.873 ', '2013', '38.699 ', '㈜부산도시가스', '9243.135 ']
['10198.959 ', '03', '42.701 ', '2013', '38.539 ', '㈜삼천리', '9204.797 ']
['10193.465 ', '03', '42.678 ', '2013', '38.517 ', '㈜에스코', '9199.670 ']
['10246.967 ', '03', '42.902 ', '2013', '38.726 ', '㈜지에스이', '9249.600 ']
['10219.261 ', '03', '42.786 ', '2013', '38.618 ', '㈜충남도시가스', '9223.744 ']
['10243.145 ', '03', '42.886 ', '2013', '38.711 ', '㈜해양도시가스', '9246.033 ']
['10197.048 ', '03', '42.693 ', '2013', '38.531 ', '강남도시가스㈜', '9203.013 ']
['10219.977 ', '03', '42.789 ', '2013', '38.621 ', '강원도시가스㈜', '9224.412 ']
['10241.712 ', '03', '42.880 ', '2013', '38.706 ', '경남에너지㈜Wn(LNG + NG)', '9244.696 ']
['10233.591 ', '03', '42.846 ', '2013', '38.674 ', '대성청정에너지㈜', '9237.117 ']
['10209.468 ', '03', '42.745 ', '2013', '38.580 ', '군산도시가스㈜Wn(LNG + NG)', '9214.604 ']
['10222.127 ', '03', '42.798 ', '2013', '38.629 ', '대성에너지㈜', '9226.418 ']
['10235.502 ', '03', '42.854 ', '2013', '38.681 ', '대화도시가스㈜', '9238.900 ']
['10258.670 ', '03', '42.951 ', '2013', '38.772 ', '목포도시가스㈜', '9260.522 ']
['10240.279 ', '03', '42.874 ', '2013', '38.700 ', '서라벌도시가스㈜', '9243.358 ']
['10196.092 ', '03', '42.689 ', '2013', '38.527 ', '서울도시가스㈜', '9202.121 ']
['10206.841 ', '03', '42.734 ', '2013', '38.569 ', '서해도시가스㈜Wn(LNG + NG)', '9212.153 ']
['10217.827 ', '03', '42.780 ', '2013', '38.612 ', '영남에너지서비스㈜ 구미', '9222.405 ']
['10236.457 ', '03', '42.858 ', '2013', '38.685 ', '영남에너지서비스㈜ 포항', '9239.792 ']
['10189.882 ', '03', '42.663 ', '2013', '38.503 ', '인천도시가스㈜', '9196.326 ']
['10235.980 ', '03', '42.856 ', '2013', '38.683 ', '전남도시가스㈜', '9239.346 ']
['10241.234 ', '03', '42.878 ', '2013', '38.704 ', '전북도시가스㈜', '9244.250 ']

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urls_2025 = []
months_2025 = ['01', '02', '03', '04', '05', '06', '07', '08', '09', '10']
for i in range(10):
    url = f'https://apis.data.go.kr/B551210/supplyValuePer formanceList/getSupplyValuePer formanceList?serviceKey={service_key}&openYr=2025'
    urls_2025.append(url)

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for i in range(len(urls_2025)):
    response = requests.get(urls_2025[i])
    contents = response.text
    json_ob = json.loads(contents)
    aa = json_ob['response']['body']['items']['item']
    for j in range(len(aa)):
        try:
            spICalMaxKcal = aa[j]['spICalMaxKcal']
        except:
            spICalMaxKcal = ''
        spICalMonth = aa[j]['spICalMonth']
        try:
            spICalMaxMj = aa[j]['spICalMaxMj']
        except:
            spICalMaxMj = ''
        spICalYear = aa[j]['spICalYear']
        try:
            spICalMinMj = aa[j]['spICalMinMj']
        except:
            spICalMinMj = ''
        try:
            spICalCpnm = aa[j]['spICalCpnm']
        except:
            spICalCpnm = ''
        try:
            spICalMinKcal = aa[j]['spICalMinKcal']
        except:
            spICalMinKcal = ''
        data = [spICalMaxKcal, spICalMonth, spICalMaxMj, spICalYear, spICalMinMj, spICalCpnm, spICalMinKcal]
        print(data)
        datas.append(data)

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['10262.73', '01', '42.968', '2025', '38.788', '(주)경동도시가스', '9264.311']
['10254.61', '01', '42.934', '2025', '38.756', '(주)귀뚜라미에너지', '9256.733']
['10242.429', '01', '42.883', '2025', '38.708', '(주)대륜이엔에스', '9245.365']
['10284.227', '01', '43.058', '2025', '38.872', '(주)미래엔서해에너지', '9284.373']
['10283.032', '01', '43.053', '2025', '38.867', '(주)부산도시가스', '9283.257']
['10243.623', '01', '42.888', '2025', '38.713', '(주)삼천리', '9246.479']
['10240.996', '01', '42.877', '2025', '38.703', '(주)에스코', '9244.028']
['10286.854', '01', '43.069', '2025', '38.882', '(주)제주도시가스', '9286.824']
['10261.536', '01', '42.963', '2025', '38.783', '(주)지에스이', '9263.196']
['10256.998', '01', '42.944', '2025', '38.765', '(주)해양에너지', '9258.961']
['10256.043', '01', '42.94', '2025', '38.762', '강원도시가스(주)', '9258.07']
['10286.854', '01', '43.069', '2025', '38.882', '경남에너지(주)', '9286.824']
['10287.809', '01', '43.073', '2025', '38.886', '군산도시가스(주)', '9287.715']
['10272.045', '01', '43.007', '2025', '38.824', '대성에너지(주)', '9273.004']
['10269.896', '01', '42.998', '2025', '38.816', '대성청정에너지(주)', '9270.998']
['10239.085', '01', '42.869', '2025', '38.695', '대화도시가스(주)', '9242.244']
['10237.891', '01', '42.864', '2025', '38.691', '명성파워그린(주)', '9241.13']
['10254.849', '01', '42.935', '2025', '38.757', '서라벌도시가스(주)', '9256.956']
['10257.954', '01', '42.948', '2025', '38.769', '서울도시가스(주)', '9259.854']
['10284.943', '01', '43.061', '2025', '38.875', '씨엔씨티에너지(주)', '9285.041']
['10246.489', '01', '42.9', '2025', '38.724', '램씨에너지(주)', '9249.154']

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[ '10286.137', '01', '43.066', '2025', '38.879', '영남에너지서비스(주)구미', '9286.155' ]
[ '10254.61', '01', '42.934', '2025', '38.756', '영남에너지서비스(주)포항', '9256.733' ]
[ '10281.122', '01', '43.045', '2025', '38.86', '인천도시가스(주)', '9281.475' ]
[ '10224.993', '01', '42.81', '2025', '38.64', '전남도시가스(주)', '9229.093' ]
[ '10267.03', '01', '42.986', '2025', '38.805', '전북도시가스(주)', '9268.324' ]
[ '10283.271', '01', '43.054', '2025', '38.868', '전북에너지서비스(주)', '9283.48' ]
[ '10234.786', '01', '42.851', '2025', '38.679', '제이비(주)', '9238.232' ]
[ '10258.431', '01', '42.95', '2025', '38.771', '참빛도시가스(주)', '9260.299' ]
[ '10235.98', '01', '42.856', '2025', '38.683', '참빛영동도시가스(주)', '9239.346' ]
[ '10254.61', '01', '42.934', '2025', '38.756', '참빛원주도시가스(주)', '9256.733' ]
[ '10256.759', '01', '42.943', '2025', '38.764', '참빛충북도시가스(주)', '9258.738' ]
[ '10239.801', '01', '42.872', '2025', '38.698', '충청에너지서비스(주)', '9242.912' ]
[ '10235.98', '01', '42.856', '2025', '38.683', '코원에너지서비스(주)', '9239.346' ]
[ '10255.087417598166', '01', '42.936', '2025', '38.75795407200001', '합계', '9257.17829177415' ]
[ '10246.967', '02', '42.902', '2025', '38.726', '(주)경동도시가스', '9249.6' ]
[ '10173.402', '02', '42.594', '2025', '38.439', '(주)귀뚜라미에너지', '9180.946' ]
[ '10231.681', '02', '42.838', '2025', '38.666', '(주)대륜이엔에스', '9235.334' ]
[ '10151.428', '02', '42.502', '2025', '38.353', '(주)미래엔서해에너지', '9160.439' ]
[ '10260.342', '02', '42.958', '2025', '38.778', '(주)부산도시가스', '9262.082' ]
[ '10161.938', '02', '42.546', '2025', '38.394', '(주)삼천리', '9170.247' ]
[ '10182.478', '02', '42.632', '2025', '38.474', '(주)에스코', '9189.416' ]
[ '10307.156', '02', '43.154', '2025', '38.961', '(주)제주도시가스', '9305.771' ]
[ '10228.098', '02', '42.823', '2025', '38.652', '(주)지에스이', '9231.991' ]
[ '10182.956', '02', '42.634', '2025', '38.476', '(주)해양에너지', '9189.862' ]
[ '10241.951', '02', '42.881', '2025', '38.707', '강원도시가스(주)', '9244.919' ]
[ '10262.73', '02', '42.968', '2025', '38.788', '경남에너지(주)', '9264.311' ]
[ '10158.355', '02', '42.531', '2025', '38.38', '군산도시가스(주)', '9166.904' ]
[ '10246.967', '02', '42.902', '2025', '38.726', '대성에너지(주)', '9249.6' ]
[ '10176.029', '02', '42.605', '2025', '38.449', '대성청정에너지(주)', '9183.398' ]
[ '10201.825', '02', '42.713', '2025', '38.55', '대화도시가스(주)', '9207.472' ]
[ '10224.037', '02', '42.806', '2025', '38.637', '명성파워그린(주)', '9228.201' ]
[ '10248.639', '02', '42.909', '2025', '38.733', '서라벌도시가스(주)', '9251.16' ]
[ '10217.589', '02', '42.779', '2025', '38.611', '서울도시가스(주)', '9222.183' ]
[ '10157.877', '02', '42.529', '2025', '38.378', '씨엔씨티에너지(주)', '9166.457' ]
[ '10176.746', '02', '42.608', '2025', '38.452', '엠씨에너지(주)', '9184.067' ]
[ '10168.386', '02', '42.573', '2025', '38.419', '영남에너지서비스(주)구미', '9176.265' ]
[ '10248.877', '02', '42.91', '2025', '38.734', '영남에너지서비스(주)포항', '9251.382' ]
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```
spldf = pd.DataFrame(datas)
spldf.columns = ['spICalMaxKcal', 'spIMonth', 'spICalMaxMj', 'spIYear', 'spICalMinMj', 'spICalCpnm', 'spICalMinKcal']

spldf_total = spldf[spldf['spICalCpnm']=='합계']
spldf = spldf[spldf['spICalCpnm']!='합계']
spldf = spldf[spldf['spICalCpnm']!='']

spldf = spldf.reset_index()
spldf_total = spldf_total.reset_index()

spldf[['spICalMaxKcal', 'spICalMinKcal', 'spICalMaxMj', 'spICalMinMj']] = spldf[['spICalMaxKcal', 'spICalMinKcal', 'spICalMaxMj', 'spICalMinMj']]
spldf_total[['spICalMaxKcal', 'spICalMinKcal', 'spICalMaxMj', 'spICalMinMj']] = spldf_total[['spICalMaxKcal', 'spICalMinKcal', 'spICalMaxMj', 'spICalMinMj']]

spldf['spIym'] = spldf['spIYear'] + '-' + spldf['spIMonth']
spldf_total['spIym'] = spldf_total['spIYear'] + '-' + spldf_total['spIMonth']

# 이상치 처리
spldf_total.loc[53, 'spICalMinKcal'] = 9201.23
spldf.drop([4276], axis=0, inplace=True)
```

```
spldf.to_csv('spldf.csv')
spldf_total.to_csv('spldf_total.csv')
```