

Web Services

Documentation (/services) » Get Utility Rates

https://api.openei.org/utility_rates?params

Access complex utility rate structure information (across all sectors) for most U.S. utility companies from the U.S. Utility Rate Database. This information is collected and quality controlled on a continual basis by Illinois State University on behalf of DOE and housed within the OpenEI.org platform. To browse available data, see the OpenEI U.S. Utility Rate Database page (/wiki/Utility_Rate_Database).

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Request URL

GET https://api.openei.org/utility_rates?parameters

Request Parameters

Parameter	Required	Value	Description
version	Yes	Options: <i>latest, 3-7</i>	Versions 4+ include international rates.
format	Yes	Options: <i>json, csv, or json_plain</i>	The format parameter will be disregarded if the debug parameter is set
api_key	Yes	Type: String	Register for a key here (/services/api/signup), it's free!
modified_after	No	Type: Integer	Timestamp, seconds since 1970-01-01T00:00:00, UTC.
limit	No	Type: Integer	Maximum record count 500.
getpage	No	Type: String	Get a specific page name, i.e. <code>getpage=535aeca39bef511109580ee1</code> (<code>https://api.openei.org/utility_rates?version=5&format=json_plain&detail=full&getpage=535aeca39bef511109580ee1</code>). This is referred to as "label" in the results.
ratesforutility	No	Type: String	Get rates for a specific utility page name, i.e. <code>ratesforutility=Detroit Edison Co</code> (<code>https://api.openei.org/utility_rates?version=5&limit=20&detail=full&format=json_plain&ratesforutility=Detroit%20Edison%20Co</code>). This value can be re-used from the "label" value in the <code>utility_companies</code> results.
offset	No	Type: Integer Default: 0	The offset from which to start retrieving records.
orderby	No	Type: Field Name Default: label	Field to use to sort results.
direction	No	Type: String Default: asc Options: <i>asc, or desc</i>	Direction to order results, ascending or descending.
effective_on_date	No	Type: Integer	Timestamp, seconds since 1970-01-01T00:00:00, UTC.
sector	No	Options: <i>Residential, Commercial, Industrial, or Lighting</i>	Shows only those rates matching the given sector.
approved	No	Options: <i>true or false</i>	Shows only those rates whose approval status matches the given value.
is_default	No	Options: <i>true or false</i>	Shows only those rates whose "Is Default" status matches the given value.
country	No	Type: String	ISO 3 character country code, i.e. <code>country=USA</code> .
address	No	Type: String	Address for rate, see Google Geocoding API (<code>https://developers.google.com/maps/documentation/geocoding/</code>) for details. Address or lat/lon may be used, but not both.
lat	No	Type: Integer	Latitude for rate. If set, lon must also be set and address must not.
lon	No	Type: Integer	Longitude for rate. If set, lat must also be set and address must not.
radius	No	Type: Integer Default: 0 Maximum: 200	Radius to include surrounding search result, in miles.

Parameter	Required	Value	Description
co_limit	No	Type: Integer	Maximum number of companies to include in a geographic search (using lat/lon, or address).
eia	No	Type: Integer	EIA Id to look up.
callback	No	Type: String Type: String Default: minimal Options: full	callback=<mycallback> - set mycallback as the json callback.
detail	No	(https://api.openei.org/utility_rates?version=5&limit=5&detail=full) or minimal" (https://api.openei.org/utility_rates?version=5&limit=5)	- detail=full - returns every variable. Since this results in a lot of data that can time-out returning to your server, use a limit=500 and set an offset (e.g. 501) if you want more data. - Compare to detail=minimal (https://api.openei.org/utility_rates?version=5&limit=5), which is the default.

Response Fields

Field	Value	Description
label	Type: string	Page label.
utility	Type: string	Utility company name.
name	Type: string	Rate name.
uri	Type: URI	Full page URI.
approved	Type: boolean	Expert has verified
is_default	Type: boolean	Is the most common rate for the given time period, sector and service type for the utility.
startdate	Type: integer	Effective Date timestamp
enddate	Type: integer	End Date timestamp
supercedes	Type: string	Label of the rate this rate supercedes.
sector	Type: enumeration	Sector, one of "Residential", "Commercial", "Industrial", or "Lighting"
servicetype	Type: enumeration	Service type, one of "Bundled", "Energy", "Delivery", or "Delivery with Standard Offer"
description	Type: string	Description
source	Type: string	Source or reference.
sourceparent	Type: URI	Source Parent
basicinformationcomments	Type: string	Basic Comments
peakkwcapacitymin	Type: decimal	Demand Minimum (kW)
peakkwcapacitymax	Type: decimal	Demand Maximum (kW)
demandunits	Type: enumeration	Demand applicability units, one of "kW", "hp", "kVA", "kW daily", "hp daily", "kVA daily"
peakkwcapacityhistory	Type: decimal	Demand History (months)
peakkwhusagemin	Type: decimal	Energy Minimum (kW)
peakkwhusagemax	Type: decimal	Energy Maximum (kW)
peakkwhusagehistory	Type: decimal	Energy History (months)
voltageminimum	Type: decimal	Service Voltage Minimum
voltagemaximum	Type: decimal	Service Voltage Maximum
voltagecategory	Type: enumeration	Voltage category, one of "Primary", "Secondary", or "Transmission"

Field	Value	Description
phasewiring	Type: enumeration	Phase wiring, one of "Single Phase", "3-Phase", or "Single and 3-Phase"
flatdemandunit	Type: enumeration	Seasonal/Monthly Rate Units, one of "kW", "hp", "kVA", "kW daily", "hp daily", "kVA daily" Seasonal/Monthly Demand Charge Structure. Each element in the top-level array corresponds to one period (see flatdemandmonths) and each array element within a period corresponds to one tier. Indices are zero-based and correspond with flatdemandmonths entries: [{"max":(Decimal),"rate":(Decimal),"adj":(Decimal)},...,...]
flatdemandstructure	Type: array	Note that in the downloadable csv the flatdemandstructure is flattened into the following format for backward compatibility, where period_number and tier_number are zero-indexed: • flatdemandstructure/period<period_number>/tier<tier_number>max • flatdemandstructure/period<period_number>/tier<tier_number>rate • flatdemandstructure/period<period_number>/tier<tier_number>adj Seasonal/Monthly Demand Charge Structure. Array of 12 integers, one per month, where each corresponds to the index of a period in flatdemandstructure.
flatdemandmonths	Type: array	Note that in the downloadable csv each month has its own column header of the form flatdemandmonth<month_number> with month_numbers 1-12.
demandrateunit	Type: enumeration	Time of Use Rate Units, one of "kW", "hp", "kVA", "kW daily", "hp daily", "kVA daily" Time of Use Demand Charge Structure. Each element in the top-level array corresponds to one period (see demandweekdayschedule and demandweekendschedule) and each array element within a period corresponds to one tier. Indices are zero-based and correspond with demandweekdayschedule and/or demandweekendschedule entries: [{"max":(Decimal),"rate":(Decimal),"adj":(Decimal),"sell":(Decimal)},...,...]
demandratestructure	Type: array	Note that in the downloadable csv the demandratestructure is flattened into the following format for backward compatibility, where period_number and tier_number are zero-indexed: • demandratestructure/period<period_number>/tier<tier_number>max • demandratestructure/period<period_number>/tier<tier_number>rate • demandratestructure/period<period_number>/tier<tier_number>adj Time of Use Demand Charge Structure Weekday Schedule. Value is an array of arrays. The 12 top-level arrays correspond to a month of the year. Each month array contains one integer per hour of the weekday from 12am to 11pm, and the integer corresponds to the index of a period in demandratestructure.
demandweekdayschedule	Type: array	Time of Use Demand Charge Structure Weekend Schedule. Value is an array of arrays. The 12 top-level arrays correspond to a month of the year. Each month array contains one integer per hour of the weekday from 12am to 11pm, and the integer corresponds to the index of a period in demandratestructure.
demandweekendschedule	Type: array	Array of 12 decimal numbers, one Demand Ratchet Percentage per month.
demandratchetpercentage	Type: array	Demand Window (minutes)
demandwindow	Type: decimal	Demand Reactive Power Charge (\$/kVAR)
demandreactivepowercharge	Type: decimal	Coincident Rate Units, one of "kW", "hp", "kVA", "kW daily", "hp daily", "kVA daily"
coincidentrateunit	Type: enumeration	Coincident Rate Structure. Each element in the top-level array corresponds to one period (see coincidentstructure) and each array element within a period corresponds to one tier. Indices are zero-based to correspond with coincidentstructure entries: [{"max":(Decimal),"rate":(Decimal),"adj":(Decimal),"sell":(Decimal)},...,...]
coincidentratestructure	Type: array	Note that in the downloadable csv the coincidentratestructure is flattened into the following format for backward compatibility, where period_number and tier_number are zero-indexed: • coincidentratestructure/period<period_number>/tier<tier_number>max • coincidentratestructure/period<period_number>/tier<tier_number>rate • coincidentratestructure/period<period_number>/tier<tier_number>adj Coincident Rate Structure Schedule. Value is an array of arrays. The 12 top-level arrays correspond to a month of the year. Each month array contains one integer per hour of the day from 12am to 11pm, and the integer corresponds to the index of a period in coincidentratestructure.
coincidentrateschedule	Type: array	Other Demand Attributes in a key/value format.
demandattrs	Type: array	Demand Comments
demandcomments	Type: string	

Field	Value	Description
dgrules	Type: enumeration	Compensation for distributed generation, one of "Net Metering", "Net Billing Instantaneous", "Net Billing Hourly", or "Buy All Sell All"
energyratestructure	Type: array	Tiered Energy Usage Charge Structure. Each element in the top-level array corresponds to one period (see energyweekdayschedule and energyweekendschedule) and each array element within a period corresponds to one tier. Indices are zero-based to correspond with energyweekdayschedule and energyweekendschedule entries: [{"max":(Decimal),"unit":(Enumeration),"rate":(Decimal),"adj":(Decimal),"sell":(Decimal)},...,...] Note that in the downloadable csv the energyratestructure is flattened into the following format for backward compatibility, where period_number and tier_number are zero-indexed: - energyratestructure/period<period_number>/tier<tier_number>max - energyratestructure/period<period_number>/tier<tier_number>rate - energyratestructure/period<period_number>/tier<tier_number>adj - energyratestructure/period<period_number>/tier<tier_number>sell
energyweekdayschedule	Type: array	Tiered Energy Usage Charge Structure Weekday Schedule. Value is an array of arrays. The 12 top-level arrays correspond to a month of the year. Each month array contains one integer per hour of the weekday from 12am to 11pm, and the integer corresponds to the index of a period in energyratestructure.
energyweekendschedule	Type: array	Tiered Energy Usage Charge Structure Weekend Schedule. Value is an array of arrays. The 12 top-level arrays correspond to a month of the year. Each month array contains one integer per hour of the weekend from 12am to 11pm, and the integer corresponds to the index of a period in energyratestructure.
fueladjustmentsmonthly	Type: array	Array of 12 decimal numbers, one per month, each is \$/kWh.
energyattrs	Type: array	Other Energy Attributes in a key/value format.
energycomments	Type: string	Energy Comments
fixedchargefirstmeter	Type: decimal	Fixed charge for first meter. See fixedchargeunits for units.
fixedchargeeeaaddl	Type: decimal	Fixed charge for each additional meter. See fixedchargeunits for units.
fixedchargeunits	Type: enumeration	Units for fixedchargefirstmeter and fixedchargeeeaaddl, one of "\$/day", "\$/month" or "\$/year".
mincharge	Type: decimal	Minimum charge. See minchargeunits for units.
minchargeunits	Type: enumeration	Units for mincharge, one of "\$/day", "\$/month" or "\$/year".
fixedattrs	Type: array	Other Fixed Charge Attributes in a key/value format.

Examples

JSON Output Format

GET https://api.openei.org/utility_rates?version=5&format=json&limit=3&api_key=EXAMPLE_API_KEY (https://api.openei.org/utility_rates?version=5&format=json&limit=3&api_key=EXAMPLE_API_KEY)

```
1  {"items": [  
2      {"label": "5374efea9bef51471a6965d0",  
3          "uri": "https://openei.org/apps/USURDB/rate/view/5374efea9bef51471a6965d0",  
4          "type": "Utility_Rates"},  
5      {"label": "5374efea9bef51471a6965d2",  
6          "uri": "https://openei.org/apps/USURDB/rate/view/5374efea9bef51471a6965d2",  
7          "type": "Utility_Rates"},  
8      {"label": "5374efea9bef51471a6965d4",  
9          "uri": "https://openei.org/apps/USURDB/rate/view/5374efea9bef51471a6965d4",  
10         "type": "Utility_Rates"}  
11  ]}
```

CSV Output Format

GET https://api.openei.org/utility_rates?version=5&format=csv&limit=3&api_key=EXAMPLE_API_KEY (https://api.openei.org/utility_rates?version=5&format=csv&limit=3&api_key=EXAMPLE_API_KEY)

1	PageName
2	5374efea9bef51471a6965d0
3	5374efea9bef51471a6965d2
4	5374efea9bef51471a6965d4

Errors

Returns a description of the error



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