

Web Services

Documentation (/services) » Fetch Utility Rates

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

The `/utility_rates` endpoint returns a list of information about utilities. You can specify utility rates to view, see all rates effective on a specific date, find all rates for a specific country, and more.

This information is collected and updated by Illinois State University on behalf of DOE and housed within the OpenEI.org platform.

You'll need an API key to send a request. You can request a free API key using our signup form (/services/api/signup/).

Alternatively, we also support a webpage where you can browse the OpenEI U.S. Utility Rate Database (https://openei.org/wiki/Utility_Rate_Database) without using the API.

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Standard Request

The request URL provides the endpoint where your request will be sent. You'll need to send a GET request to:

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

You'll replace *parameters* with any of the request parameters. All requests must include a *version*, *format*, and *api_key*.

Minimum Request Example

GET https://api.openei.org/utility_rates?version=*latest*&format=*json*&api_key=*YOUR_API_KEY*

This example will retrieve a list of all companies. Be sure to:

- Replace *latest* with the version of the API you would like to use.
- Replace *json* with the format you would like to receive your response in.
- Replace *YOUR_API_KEY* with your API key.

Request Parameters

Parameter	Required	Value	Description
version	Yes	Options: <i>latest</i> , 3, 4, 5, 6, or 7	Choose which version of the API you would like to use. We recommend using the latest version. Versions 4+ include international rates.
format	Yes	Options: <i>json</i> , <i>csv</i> , or <i>json_plain</i>	The format determines how the response will be output. The format parameter will be disregarded if the debug parameter is set.
api_key	Yes	Type: String	You can request a free API key using our signup form (/services/api/signup/).
modified_after	No	Type: Integer	Returns all rates that were modified after a specific time and date. For the timestamp, use the format: Timestamp, seconds since 1970-01-01T00:00:00, UTC.
limit	No	Type: Integer	Choose how many rates to return. You can return up to 500 rates. You can combine this parameter with offset to page through results. Returns information associated with a specific webpage. You can set this parameter to the last part of the web page path for the result you want returned.
getpage	No	Type: String	For example, for page https://apps.openei.org/USURDB/rate/view/ 539fc9d7ec4f024d2f53f5b6 , set the value to 539fc9d7ec4f024d2f53f5b6 . The <i>label</i> response field contains the results for the page returned.
ratesforutility	No	Type: String	Returns all rates from a specific utility. To retrieve a full list of all utilities use the /GET — Fetch all Utility Companies (/services/doc/rest/util_cos) endpoint.
offset	No	Type: Integer Default: 0	Returns a list of records starting from a certain record number. For example, if you have set a <i>limit</i> of 500 records, but would like to return the records 500-1,000, you can set the offset to 500.
orderby	No	Type: Field Name Default: label	Choose how to sort results. You can set this field to any request parameter and results will be returned alphanumerically.

Parameter	Required	Value	Description
direction	No	Type: String Default: asc Options: asc, or desc	Search results are returned alphanumerically. Choose if you would like result to be returned in ascending or descending order.
effective_on_date	No	Type: Integer	Returns all rates that are effective starting at a specific time and date. For the timestamp use the format: Timestamp, seconds since 1970-01-01T00:00:00, UTC.
sector	No	Options: Residential, Commercial, Industrial, or Lighting	Returns rates matching the specified sector. For example, Residential, Commercial, Industrial, or Lighting.
approved	No	Options: true or false	<ul style="list-style-type: none">Returns rates that have been approved if set to true.Returns rates that have not been approved if set to false.
is_default	No	Options: true or false	<ul style="list-style-type: none">Returns default rates if set to true.Returns rates that are not the default if set to false.
country	No	Type: String	Returns all rates from a specified country. Set the parameter to an ISO 3 character country code. For example, country=USA.
address	No	Type: String	Returns all rates from a specified address. See Google Geocoding API (https://developers.google.com/maps/documentation/geocoding/) for details. You must set either an address or a latitude and longitude.
lat	No	Type: Integer	Returns all rates from a specific latitude and longitude. You must also set the longitude parameter to return results. You must set either an address or a latitude and longitude.
lon	No	Type: Integer	Returns all rates from a specific latitude and longitude. You must also set the latitude parameter to return results. You must set either an address or a latitude and longitude.
radius	No	Type: Integer Default: 0 Maximum: 200	Returns all results that are a specified radius from the address or latitude and longitude. You must set either an address or a latitude and longitude. The radius is measured in miles.
co_limit	No	Type: Integer	Choose how many companies to include in a geographic search. You must set either an address or a latitude and longitude.
eia	No	Type: Integer	Returns a single utility associated with an EIA ID.
callback	No	Type: String	callback=<mycallback> — set mycallback as the json callback.
detail	No	Type: String Default: minimal Options: full or minimal"	<ul style="list-style-type: none">detail=full - Returns every variable. This results in a lot of data that can time-out returning to your server. We recommend using limit and offset if you want more data.detail=minimal - Returns only the response fields associated with the request parameters set.

Response Fields

Field	Value	Description
label	Type: string	The page label is the last part of the web page path. For example, for page https://apps.openei.org/USURDB/rate/view/539fc9d7ec4f024d2f53f5b6 , the page label is 539fc9d7ec4f024d2f53f5b6.
utility	Type: string	The name of the utility company.
name	Type: string	The name of the rate. For example, Residential (RS).
uri	Type: URI	The link to the page in the URDB where the rate is listed.
approved	Type: boolean	Returns true if verified by an expert.
is_default	Type: boolean	Returns true if the rate is the most common rate for the given time period, sector, and service type for the utility.
startdate	Type: integer	The date and time that the rate became effective.
enddate	Type: integer	The date and time that the rate was sunset.
supercedes	Type: string	The label of the rate this rate supercedes. In most cases, this is the rate that was effective previously.
sector	Type: enumeration	"Residential", "Commercial", "Industrial", or "Lighting"
servicetype	Type: enumeration	"Bundled", "Energy", "Delivery", or "Delivery with Standard Offer"
description	Type: string	A description of the rate.
source	Type: string	A link directly to the rate sheet or book that provides information for the specified rate.
sourceparent	Type: URI	A link to the company website for the given rate.
basicinformationcomments	Type: string	The comments added to the URDB to characterize the rate. Basic comments are often added when an aspect of a rate can't be captured in the URDB or specific applicability rules apply.

Field	Value	Description
peakkwcapacitymin	Type: decimal	The minimum demand usage (kW) that must be met to be applicable for this rate.
peakkwcapacitymax	Type: decimal	The maximum demand usage (kW) that must be met to be applicable for this rate.
demandunits	Type: enumeration	"kW", "hp", "kVA", "kW daily", "hp daily", or "kVA daily"
peakkwcapacityhistory	Type: decimal	The number of months that a maximum or minimum demand history applies to.
peakkwhusagemin	Type: decimal	The minimum energy usage (kWh) that must be met to be applicable for this rate.
peakkwhusagemax	Type: decimal	The maximum energy usage (kWh) that must be met to be applicable for this rate.
peakkwhusagehistory	Type: decimal	The number of months that a maximum or minimum energy history applies to.
voltageminimum	Type: decimal	The minimum service voltage usage (V) that must be met to be applicable for this rate.
voltagemaximum	Type: decimal	The maximum service voltage usage (V) that must be met to be applicable for this rate.
voltagecategory	Type: enumeration	"Primary", "Secondary", or "Transmission"
phasewiring	Type: enumeration	"Single Phase", "3-Phase", or "Single and 3-Phase"
flatdemandunit	Type: enumeration	"kW", "hp", "kVA", "kW daily", "hp daily", or "kVA daily"
		The seasonal/monthly demand charge structure is represented by a multidemsional array. Each element in the top-level array corresponds to one period. These periods are represent by the <i>flatdemandmonths</i> parameter. Each array element within a period corresponds to one tier. Indices are zero-based to correspond with <i>flatdemandmonths</i> entries: [{"max":(Decimal),"rate":(Decimal),"adj":(Decimal)},...].
flatdemandstructure	Type: array	Note: In the downloadable csv, the <i>flatdemandstructure</i> is flattened into the following format for backward compatibility, where period_number and tier_number are zero-indexed: <ul style="list-style-type: none"> flatdemandstructure/period<period_number>/tier<tier_number>max flatdemandstructure/period<period_number>/tier<tier_number>rate flatdemandstructure/period<period_number>/tier<tier_number>adj The nested array that includes 12 integers, one per month, where each corresponds to the index of a period in <i>flatdemandstructure</i> parameter.
flatdemandmonths	Type: array	Note: 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	"kW", "hp", "kVA", "kW daily", "hp daily", or "kVA daily"
		The time of use demand charge structure is represented by a multidemsional array. Each element in the top-level array corresponds to one period. These periods are represent by the <i>demandweekdayschedule</i> parameter. Each array element within a period corresponds to one tier. Indices are zero-based to correspond with <i>demandweekdayschedule</i> and/or <i>demandweekendschedule</i> entries: [{"max":(Decimal),"rate":(Decimal),"adj":(Decimal),"sell":(Decimal)},...].
demandratestructure	Type: array	Note: In the downloadable csv, the <i>demandratestructure</i> is flattened into the following format for backward compatibility, where period_number and tier_number are zero-indexed: <ul style="list-style-type: none"> demandratestructure/period<period_number>/tier<tier_number>max demandratestructure/period<period_number>/tier<tier_number>rate demandratestructure/period<period_number>/tier<tier_number>adj
demandweekdayschedule	Type: array	In the time of use demand charge structure weekday schedule, the value returned 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 <i>demandratestructure</i> .
demandweekendschedule	Type: array	In the time of use demand charge structure weekend schedule, the value returned 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 <i>demandratestructure</i> .
demandratchetpercentage	Type: array	The Demand Ratchet Percentage per month, which is represented by an array of 12 decimal numbers.
demandwindow	Type: decimal	The amount of time, in minutes, that a demand charge applies.
demandreactivepowercharge	Type: decimal	The demand reactive power charge (\$/kVAR).
coincidentrateunit	Type: enumeration	"kW", "hp", "kVA", "kW daily", "hp daily", or "kVA daily"

Field	Value	Description
		The coincident rate structure is represented by a multidemsional array. Each element in the top-level array corresponds to one period. These periods are represent by the <i>coincidentrateschedule</i> . Each array element within a period corresponds to one tier. Indices are zero-based to correspond with <i>coincidentstructure</i> entries: [{"max":(Decimal),"rate":(Decimal),"adj":(Decimal),"sell":(Decimal)},...].
coincidentratestructure	Type: array	Note: In the downloadable csv, the <i>coincidentratestructure</i> is flattened into the following format for backward compatibility, where period_number and tier_number are zero-indexed: <ul style="list-style-type: none"> coincidentratestructure/period<period_number>/tier<tier_number>max coincidentratestructure/period<period_number>/tier<tier_number>rate coincidentratestructure/period<period_number>/tier<tier_number>adj
coincidentrateschedule	Type: array	In the coincident rate structure schedule, the value returned 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 <i>coincidentratestructure</i> .
demandattrs	Type: array	A list of any additional attribute and value pairs that characterize the demand charge.
demandcomments	Type: string	The demand comments list any factors needed to calculate the demand rate and all adjustments used to calculate the demand adjustment charge.
dgrules	Type: enumeration	The type of compensation that is offered for distributed generation. For example, "Net Metering", "Net Billing Instantaneous", "Net Billing Hourly", or "Buy All Sell All."
		The tiered energy usage charge structure is represented by a multidemsional array. Each element in the top-level array corresponds to one period. These periods are represent by the <i>energyweekdayschedule</i> and <i>energyweekendschedule</i> and each array element within a period corresponds to one tier. Indices are zero-based to correspond with <i>energyweekdayschedule</i> and <i>energyweekendschedule</i> entries: [{"max":(Decimal),"unit":(Enumeration),"rate":(Decimal),"adj":(Decimal),"sell":(Decimal)},...].
energyratestructure	Type: array	Note: In the downloadable csv, the <i>energyratestructure</i> is flattened into the following format for backward compatibility, where period_number and tier_number are zero-indexed: <ul style="list-style-type: none"> 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	In the tiered energy usage charge structure weekday schedule, the value returned 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 <i>energyratestructure</i> .
energyweekendschedule	Type: array	In the tiered energy usage charge structure weekend schedule, the value returned 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 <i>energyratestructure</i> .
fueladjustmentsmonthly	Type: array	The monthly fuel adjustment value is represented by an array of 12 decimal numbers, one per month, each is \$/kWh.
energyattrs	Type: array	A list of any additional attribute and value pairs that characterize the energy charge.
energycomments	Type: string	The energy comments list any factors needed to calculate the demand rate and all adjustments used to calculate the demand adjustment charge.
fixedchargefirstmeter	Type: decimal	The fixed customer charge. This can be charged per month, day, or year. You can see at what frequency the rate is being charged under <i>fixedchargeunits</i> .
fixedchargeeeaaddl	Type: decimal	The fixed customer charge for each additional meter. You can see at what frequency the rate is being charged under <i>fixedchargeunits</i> .
fixedchargeunits	Type: enumeration	The frequency that the customer is charged the <i>fixedchargefirstmeter</i> customer charge and the <i>fixedchargeeeaaddl</i> for thier first and additional meters. Fixed charge units include: "\$/day", "\$/month", or "\$/year".
mincharge	Type: decimal	The minimum charge (\$) is the minimum amount the customer pays. You can see at what frequency the rate is being charged under <i>minchargeunits</i> .
minchargeunits	Type: enumeration	The frequency that the customer is charged the <i>mincharge</i> for thier meters. Fixed charge units include: "\$/day", "\$/month", or "\$/year".
fixedattrs	Type: array	A list of any additional attribute and value pairs that characterize the fixed charge.

Examples

Get a list of utilities in JSON format

Request

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

Be sure to:

- Replace *YOUR_API_KEY* with your API key.
- Set the *limit* to the number of records you would like returned.

Response

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

Get a list of utilities in CSV format

Request

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

Be sure to:

- Set the *version* to the version of the API you would like to use.
- Replace *YOUR_API_KEY* with your API key.
- Set the *limit* to the number of records you would like returned.

Response

1	PageName
2	5374efea9bef51471a6965d0
3	5374efea9bef51471a6965d2
4	5374efea9bef51471a6965d4

Get a specific utility

Request

GET https://api.openei.org/utility_rates?version=5&format=json&limit=3&ratesforutility=PacifiCorp&api_key=YOUR_API_KEY

Be sure to:

- Set the *format* to the format you would like to output.
- Set the *version* to the version of the API you would like to use.
- Set the *limit* to the number of records you would like returned.
- Set *PacificCorp* to the utility you would like to return rates for.
- Replace *YOUR_API_KEY* with your API key.

Response

Label	URI	Sector	Start Date	End Date	C
539f6b16ec4f024411ec9837	Link (https://apps.openei.org/IURDB/rate/view/539f6b16ec4f024411ec9837)	Residential	08/12/2013	06/06/2014	
539f6b34ec4f024411ec9999	Link (https://apps.openei.org/IURDB/rate/view/539f6b34ec4f024411ec9999)	Commercial	08/12/2013	06/06/2014	
539f6bfbec4f024411eca439	Link (https://apps.openei.org/IURDB/rate/view/539f6bfbec4f024411eca439)	Commercial	08/12/2013	06/06/2014	

Get a specific utility by page

Request

GET https://api.openei.org/utility_rates?version=5&format=json&limit=3&getpage=539fc9d7ec4f024d2f53f5b6&api_key=YOUR_API_KEY

Be sure to:

- Set the *format* to the format you would like to output.
- Set the *version* to the version of the API you would like to use.
- Set the *limit* to the number of records you would like returned.
- Set *539fc9d7ec4f024d2f53f5b6* to the page you would like rates returned from.

For example, for page https://apps.openei.org/USURDB/rate/view/539fc9d7ec4f024d2f53f5b6, set the value to 539fc9d7ec4f024d2f53f5b6.
- Replace *YOUR_API_KEY* with your API key.

Response

1	label: 539fc9d7ec4f024d2f53f5b6
2	uri: https://apps.openei.org/IURDB/rate/view/539fc9d7ec4f024d2f53f5b6

3	sector: Lighting
4	source: www.cloverland.com/mainNav/myService/ratesAndRules/legacyCloverlandRates.aspx
5	country: USA
6	name: Outdoor Lighting - LED - Existing Pole
7	eiaid: 3828
8	utility: Cloverland Electric Co-op
9	approved: true
10	revisions: 1372774968, 1372775001, 1374008049, 1427405217

Errors

Standard errors (/services/doc/rest/web_service_errors) may be returned. In addition, the following service-specific errors may be returned:

HTTP Status Code	Description
400	Invalid Request — One or more parameters did not pass validation or a parameter may be missing. Check the <i>error</i> section of the response to see how the request URL should be modified to address the error.
500	A problem occurred on the server-side. This is likely due to a failure of a downstera service. The request cannot be processed at this time.

Additional Resources

- /GET — Fetch all Utility Companies (/services/doc/rest/util_cos)
- /GET — Fetch all Pages that include a Specific Term (/services/doc/rest/recommend)
- /GET — Fetch Incentives for Renewables & Efficiency (/services/doc/rest/incentives/)

- About OpenEI (/wiki/OpenEI:About)
- Get Involved (/wiki/OpenEI:Get_Involved)
- Contact (/wiki/OpenEI:About)
- Disclaimers (/wiki/OpenEI:General_disclaimer)
- Help (/wiki/Help:Contents)
- Print Page (/w/index.php?title=Wind for Schools Portal&printable=yes)
- Special Pages (/wiki/Special:SpecialPages)
- Upload File (/datasets/upload/)
- Developer Services (/services/)

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