

ECHONET Lite Web API Appendix

Version 1.00



改定履歴

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1. 本書の概要

このドキュメントはECHONET Lite Web APIガイドラインに基づき、各機器のDevice Descriptionを記述する。Device Descriptionは主にpropertyの記述で構成されている。各propertyが扱うデータの記述にはデータの値の関するものとデータの値の説明に関するものがある。JSON Schemaを利用して前者を記述する。後者はJSON Schemaにkeywordを追加してJSON Schemaのframework内に記述する。

2. 本書の構成

各propertyが扱うデータ型に関する定義を3章に、各機器オブジェクトに関するDevice Description例を第4章に記述する。Device Description例は、AIF認証にて規定されている機器のいくつかについて例示している。

3. Data Types

JSON Schemaに準拠し、必要に応じてkeywordを追加する。

3.1 boolean

Format

```
{
  "type": "boolean",
  "values": [
    {
      "value": <true or false>,
      "descriptions": {"ja": <description in Japanese>, "en": <description in
English>},
      "edt": <edt value>
    },
    ...
  ]
}
```

Keyword	Type	Required	Extention	Description
values	array	yes	yes	array of value object
value	boolean	yes	yes	true or false
descriptions.ja	string	yes	yes	description in Japanese
descriptions.en	string	yes	yes	description in English
edt	string	no	yes	EDT value in HEX

上記の表の"extention"欄はextention keywordであるか否かを示す。

Example of Device Description

```
{
  "type": "boolean",
  "values": [
    { "value": true, "descriptions": {"ja": "異常あり", "en": "Fault"}, "edt": "0x41"},
  ]
}
```

```

    {"value":false, "descriptions":{"ja":"異常無し", "en":"No Fault"}, "edt":"0x42"}
  ]
}

```

Example of body data: boolean

```
{ "operationStatus":true }, { "operationStatus":false }
```

3.2 string

Format

```

{
  "type":"string",
  "format":<keyword for format>
  "enum":[<string1>, <string2>, ...],
  "values":[
    {
      "value":<value in string>,
      "descriptions":{"ja":<description in Japanese>, "en":<description in
English>},
      "edt":<edt value>
    },
    ...
  ]
}

```

stringが特定の値を意味する場合は keyword "format" で指定する。指定する値は"date-time", "date", "time"である。取りうる値を列挙する場合は keyword "enum" を使う。

enumの値を説明するkeyword "values" はbooleanで定義されたものと同じである。

Keyword	Type	Required	Extention	Description
format	string	no	no	specify data format from "date-time", "date" and "time"
enum	array	no	no	enumurate available strings
values	array	yes	yes	array of value object
value	string	yes	yes	value in string
descriptions.ja	string	yes	yes	description in Japanese
descriptions.en	string	yes	yes	description in English
edt	string	no	yes	EDT value in HEX

Example of Schema

```

{
  "type":"string",

```

```
"format":"date-time",
}
```

```
{
  "type":"string",
  "enum":["normal", "night", "color"],
  "values":[
    {"value":"normal", "descriptions":{"ja":"通常灯", "en":"Normal Lighting"}},
    {"value":"night", "descriptions":{"ja":"常夜灯", "en":"Night Lighting"}},
    {"value":"color", "descriptions":{"ja":"カラー灯", "en":"Color Lighting"}}
  ]
}
```

Example of body data

```
{ "date-time" : "2017-01-24T13:15:22+09:00" }
```

```
{ "date" : "2018-01-23" }
```

```
{ "time" : "10:30:00" }
```

```
{ "operationMode":"normal" }, { "operationMode":"color" }
```

3.3 number

Format

```
{
  "type":"number",
  "unit":<unit>,
  "minimum":<minimum number>,
  "maximum":<maximum number>,
  "multipleOf":<minimum digit>
}
```

Keyword	Type	Required	Extention	Description
unit	string	no	yes	unit of the data

Keyword	Type	Required	Extention	Description
minimum	number	no	no	minimum value
maximum	number	no	no	maximum value
multipleOf	number	no(*)	no	minimum step of the data

(*) multipleOfを記述していないnumberは、整数値で最小単位が1です。

Example of Schema

```
{
  "type": "number",
  "unit": "kWh",
  "minimum": 0,
  "maximum": 9999
}
```

Example of body data

```
{ "humidity": 45 }, { "cumulativeEnergy": 15.5 }
```

3.4 array

Format

```
{
  "type": "array",
  "minItems": <a minimum count of items in the array>,
  "maxItems": <a maximum count of items in the array>,
  "items": <data type object>
}
```

Keyword	Type	Required	Extention	Description
minItems	number	no	no	a minimum count of items in the array
maxItems	number	no	no	a maximum count of items in the array
items	object	yes	no	data type object

Example of Schema

```
{
  "type": "array",
  "minItems": 48,
  "maxItems": 48,
  "items": {
```

```
    "type": "number",
    "unit": "kWh",
    "minimum": 0,
    "maximum": 9999
  }
}
```

Example of body data

```
{ "powerConsumption": [23, 12, 0, ...] }
```

3.5 object

Format

```
{
  "type": "object",
  "properties": {
    <property name>: <data type object>,
    <property name>: <data type object>,
    ...
  }
}
```

Keyword	Type	Required	Extention	Description
properties	object	yes	no	key:property name, value:data type object

Example of Schema (General Lighting, rgb)

```
{
  "type": "object",
  "properties": {
    "red": {
      "type": "number",
      "minimum": 0,
      "maximum": 255,
    },
    "green": {
      "type": "number",
      "minimum": 0,
      "maximum": 255,
    },
    "blue": {
      "type": "number",
      "minimum": 0,
      "maximum": 255,
    }
  }
}
```

Example of body data

```
{
  "rgb":{
    "red":20,
    "green":255,
    "blue":0
  }
}
```

Example of Schema (LV smart meter, normDirCumulativeEnergyLog1)

```
{
  "type":"object",
  "properties":{
    "day":{
      "type":"number",
      "minimum":0,
      "maximum":255
    }
    "energy":{
      "type":"array",
      "minItems":48,
      "maxItems":48,
      "items":{
        "type":"number",
        "unit":"kWh"
      }
    }
  }
}
```

Example of body data

```
{
  "normDirCumulativeEnergyLog1":{
    "day":0,
    "energy":[20, 34, 59, 109]
  }
}
```

3.6 Mixed type: oneOf

複数のData type objectからひとつを選ぶことができる場合

Format


```
{
  "oneOf": [
    <data type object>,
    <data type object>,
    ...
  ]
}
```

Example of Schema

```
{
  "oneOf": [
    {
      "type": "number",
      "minimum": 1,
      "maximum": 8,
    },
    {
      "type": "string",
      "enum": ["auto"],
      "values": [
        { "value": "auto", "descriptions": { "ja": "自動", "en": "Auto", "edt": "0x41" } }
      ]
    }
  ]
}
```

Example of body data

```
{ "airFlowLevel": 3 }, { "airFlowLevel": "auto" }
```

4. Device Description

4.1 ネーミング指針

ECHONET Lite における機器オブジェクトのプロパティ名は機器固有の機能を表している。プロパティ名はそのままではWeb APIのインタフェース名称として利用しづらいものも存在する。また、Webサービス・アプリ開発者であっても容易に利用できるよう、ECHONETプロパティコード（EPC）の値（例：0x80）ではなく、operationStatusのような文字列を利用することが望ましい。

このようなプロパティを指定する文字列をここではプロパティ・リソース名と呼ぶ。プロパティ・リソース名はWeb APIのURIの一部となるため、わかりやすく簡潔な文字列であることが求められる。以下に、プロパティ・リソース名のネーミング指針について記述する。

1. ECHONET Liteのプロパティ名の英語名をlowerCamelCaseとしたものを出発点とする
2. method（GET, PUT）に続く名詞であることを意識する
3. 冗長さを省くために情報量のない単語を省略する 例：measured, amount, value, setting
4. 意味を誤解される可能性がある場合は、必要に応じて修正する
5. 機器オブジェクト間で一貫性をもたせる

6. data typeがbooleanの場合、trueに対応するstatusをプロパティ・リソース名とする
7. 設定値と測定値が別のEPCで定義されている場合、設定値をtargetXXXとする 例：エアコン EPC=0xB3：温度設定値, "Set temperature value" → targetTemperature EPC=0xBB：室内温度計測値, "Measured value of room temperature" → roomTemperature (ちなみに、"Set temperature value"は「温度を設定する」というメソッドに誤解されかねない)

4.2 搭載プロパティ方針

Device Descriptionにて提供される内容は、対象となる機器のプロパティマップに基づき用意されることを推奨とする。プロパティマップの取得手段は、事前に該当機器の仕様書を入手したり、実機器に搭載されるプロパティマップをECHONET Liteコマンドを使用してコントローラ経由でサーバが入手するなどを想定する。入手したプロパティマップにて提供されるサービス（多くはプロパティコードEPCに対応）については、各機器に関する後述のDevice Description定義から該当するプロパティ・リソース名（properties.name）が存在する場合には、これに従い提供可能とする。もしも該当するプロパティ・リソース名が存在しない場合は、同サービスを提供しない、もしくは、必要に応じて独自に定義した上で提供可能とする。独自に定義する名称は、ベンダ固有のサービス名称であることを判別できるよう、サービス名の先頭に識別子となる接頭語（prefix）を付加すること。独自に定義する別の手段として、「POST /<deviceId>/echoCommands」を用いることも可能とする（ガイドライン本文5.5参照）。なお、機器のプロパティマップが入手できない場合は、後述のDevice Description定義をそのまま使用しても良い。サービサーのリクエストにて実機器が搭載しないサービスが呼び出された場合には、適切にエラーを応答するものとする。

機器PMでのサービス		本書DDの定義		実際のDD提供
有	x	有	=	DD定義に従う
有	x	無	=	無 or 独自定義可能
無	x	有/無	=	無

PM: プロパティマップ、DD: Device Description

各サービスにて扱う値域は、事前に実対象機器が搭載する値域（値の範囲や列挙値）を入手できる場合は、これを反映した上でDevice Descriptionのminimum, maximum, multipleOf, values, from, toなどの値へ反映可能とする。値域が不明な場合は、後述のDevice Descriptionの定義内容のまま使用し、実機器からの応答によって適切にリクエストに応答するものとする。

4.3 共通項目

全ての機器で共通なpropertyを記述する。operationStatus, faultStatusについては必須とする。

Properties

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
operationStatus	GET, PUT	boolean	0x80	動作状態 Operation Status	
installationLocation	GET	string	0x81	設置場所 Installation location	
instantaneousElectricPower	GET	number	0x84	瞬時消費電力計測値 Measured instantaneous power consumption	

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
cumulativeElectricEnergy	GET	number	0x85	積算消費電力計測値 Measured cumulative power consumption	
manufactureFaultCode	GET	string	0x86	メーカー異常コード Manufacture fault code	
currentLimit	GET	number	0x87	電流制限設定 Current limit setting	
faultStatus	GET	boolean	0x88	異常発生状態 Fault status	
faultDescription	GET	string	0x89	異常内容 Fault description	
businessFacilityCode	GET	string	0x8B	事業所名 Business facility code	
productCode	GET	string	0x8C	商品コード Product code	
serialNumber	GET	string	0x8D	製造番号 Serial number	
productionDate	GET	string	0x8E	製造年月日 Production date	
powerSaving	GET	boolean	0x8F	節電動作設定 Power-saving operation setting	
currentDateAndTime	GET	string	0x98(0x97との組だが、0x97は省略)	現在日時 Current date and time	
powerLimit	GET	number	0x99	電力制限設定 Power limit setting	
hourMeter	GET	number	0x9A	積算運転時間 Cumulative operating time	

Installation locationの値について

設置場所はECHONET Liteでは必須プロパティであるが、本ガイドラインではオプション扱いとする。機器設置後に適切に値を設定されないケースやクラウド上で任意の設置場所名の指定を許可するケースに対応するため、任意の文字列（string型）とする。

設置場所コードを使用する場合は、下記を参考にしても良い。また場所番号の使用は任意とするが、場所番号が0の場合は"livingRoom"または"livingRoom0"、1-7の場合は"livingRoom1"のように、場所番号を付与する（または省略する）形式が考えられる。下記例では、英訳版「APPENDIX Detailed Requirements for ECHONET Device objects」より、Installation location typeから、冒頭は小文字、空白は省略して連結、「/」は「_」に置き換えるというルールのもと、Installation location valueを生成している。

ECHONET Liteでは、設置場所を指定した機器の一括操作などが可能であるが、本ガイドラインでは対象外とする。

Installation location value	Installation location type	設置場所の種類(EL)
livingRoom	Living room	居間、リビング
diningRoom	Dining room	食堂、ダイニング
kitchen	Kitchen	台所、キッチン
bathroom	Bathroom	浴室、バス
lavatory	Lavatory	トイレ
washroom_changingRoom	Washroom/changing room	洗面所、脱衣所
passageway	Passageway	廊下
room	Room	部屋
stairway	Stairway	階段
frontDoor	Front door	玄関
storeroom	Storeroom	納戸
garden_perimeter	Garden/perimeter	庭、外周
garage	Garage	車庫
vernanda_balcony	Veranda/balcony	ベランダ、バルコニー
notSpecified	not specified	設置場所未設定
indefinite	indefinite	設置場所未定

Device Description (Common Items)

```
{
  "deviceType": "common",
  "eoj": "0x00",
  "descriptions": {"ja": "共通項目", "en": "Common items"},
  "properties": {
    "operationStatus": {
      "epc": "0x80",
      "descriptions": {"ja": "動作状態", "en": "Operation Status" },
      "writable": true,
      "observable": true,
      "schema": {
        "type": "boolean",
        "values": [
          {"value": true, "descriptions": {"ja": "ON", "en": "ON"}, "edt": "0x30"},
          {"value": false, "descriptions": {"ja": "OFF", "en": "OFF"}, "edt": "0x31"}
        ]
      }
    },
    "installationLocation": {
      "epc": "0x81",
      "descriptions": {"ja": "設置場所", "en": "Installation location"},

```

```
        "writable":true,
        "observable":true,
        "schema":{"type":"string" }
    },
    "instantaneousElectricPower":{
        "epc":"0x84",
        "descriptions":{"ja":"瞬時消費電力計測値", "en":"Measured instantaneous power
consumption"},
        "writable":false,
        "observable":false,
        "schema":{"
            "type":"number",
            "unit":"W",
            "minimum":0,
            "maximum":65533
        }
    },
    "cumulativeElectricEnergy":{
        "epc":"0x85",
        "descriptions":{"ja":"積算消費電力計測値", "en":"Measured cumalative power
consumption"},
        "writable":false,
        "observable":false,
        "schema":{"
            "type":"number",
            "unit":"kWh",
            "minimum":0,
            "maximum":999999.999,
            "multipleOf":0.001
        }
    },
    "manufactureFaultCode":{
        "epc":"0x86",
        "descriptions":{"ja":"メーカー異常コード", "en":"Manufacture fault code"},
        "writable":false,
        "observable":false,
        "schema":{"type":"string" }
    },
    "currentLimit":{
        "epc":"0x87",
        "descriptions":{"ja":"電流制限設定", "en":"Current limit setting"},
        "writable":true,
        "observable":false,
        "schema":{"
            "type":"number",
            "unit":"%",
            "minimum":0,
            "maximum":100
        }
    },
    "faultStatus":{
        "epc":"0x88",
        "descriptions":{"ja":"異常発生状態", "en":"Fault Status" },
        "writable":false,
        "observable":true,
        "schema":{
```

```

        "type":"boolean",
        "values":[
            {"valu":true, "descriptions":{"ja":"異常あり", "en":"Fault"},
"edt":"0x41"},
            {"value":false, "descriptions":{"ja":"異常無し", "en":"No Fault"},
"edt":"0x42"}
        ]
    }
},
"faultDescription":{
    "epc":"0x89",
    "descriptions":{"ja":"異常内容", "en":"Fault Description" },
    "writable":false,
    "observable":true,
    "schema":{"type":"string" }
},
"businessFacilityCode":{
    "epc":"0x8B",
    "descriptions":{"ja":"商品コード", "en":"Business facility code"},
    "writable":false,
    "observable":false,
    "schema":{"type":"string" }
},
"productCode":{
    "epc":"0x8C",
    "descriptions":{"ja":"商品コード", "en":"Product code"},
    "writable":false,
    "observable":false,
    "schema":{"type":"string" }
},
"serialNumber":{
    "epc":"0x8D",
    "descriptions":{"ja":"製造番号", "en":"Serial Number"},
    "writable":false,
    "observable":false,
    "schema":{"type":"string" }
},
"productionDate":{
    "epc":"0x8E",
    "descriptions":{"ja":"製造年月日", "en":"Production date"},
    "writable":false,
    "observable":false,
    "schema":{"type":"string", "format":"date" }
},
"powerSaving":{
    "epc":"0x8F",
    "descriptions":{"ja":"節電動作設定", "en":"Power-saving operation setting" },
    "writable":true,
    "observable":true,
    "schema":{
        "type":"boolean",
        "values":[
            {"value":true, "descriptions":{"ja":"節電動作", "en":"Power saving
operation"}, "edt":"0x41"},
            {"value":false, "descriptions":{"ja":"通常動作", "en":"Normal
operation"}, "edt":"0x42"}
        ]
    }
}

```


機器名	Device Type	EOJ	Note
換気扇	ventilationFan	0x0133	
空気清浄器	airCleaner	0x0135	
電動ブラインド・日よけ	electricBlind	0x0260	
電動雨戸・シャッター	electricRainDoor	0x0263	
電気温水器	electricWaterHeater	0x026B	*1
電気錠	electricKey	0x026F	
瞬間式給湯器	instantaneousWaterHeater	0x0272	*1
浴室暖房乾燥機	bathroomHeaterDryer	0x0273	
住宅用太陽光発電	pvPowerGeneration	0x0279	
冷温水熱源機	hotWaterHeatSource	0x027A	
床暖房	floorHeater	0x027B	
燃料電池	fuelCell	0x027C	*1
蓄電池	storageBattery	0x027D	*1
電気自動車充放電器	evChargerDischarger	0x027E	*1
電力量メータ	Watt-hour meter	0x0280	
水流量メータ	Water flow meter	0x0281	
ガスメータ	Gas meter	0x0282	
分電盤メータリング	powerDistributionBoard	0x0287	
低圧スマート電力量メータ	lvSmartElectricEnergyMeter	0x0288	*1
高圧スマート電力量メータ	hvSmartElectricEnergyMeter	0x028A	*1
一般照明	generalLighting	0x0290	*1
単機能照明	monoFunctionalLighting	0x0291	
電気自動車充電器	evCharger	0x02A1	*1
拡張照明システム	Lighting	0x02A4	*1
冷凍冷蔵庫	refrigerator	0x03B7	
オープンレンジ	combinationMicrowaveOven	0x03B8	
クッキングヒータ	cookingHeater	0x03B9	
洗濯乾燥機	washerDryer	0x03D3	
スイッチ	switch	0x05FD	
コントローラ	controller	0x05FF	*1

*1 ECHONETコンソーシアムのWeb API対応機器

家庭用エアコン:homeAirConditioner:0x0130

Properties

Property Name	Resource	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
powerSaving		GET, PUT	boolean	0x8F	節電動作設定 Power-saving operation setting	*1
airFlowLevel		GET, PUT	number	0xA0	風量設定 Air flow rate setting	*1
operationMode		GET, PUT	string	0xB0	運転モード設定 Operation mode setting	*1
targetTemperature		GET, PUT	number	0xB3	温度設定値 Set temperature value	*1
humidity		GET	number	0xBA	室内相対湿度計測値 Measured value of room relative humidity	*1
roomTemperature		GET	number	0xBB	室内温度計測値 Measured value of room temperature	*1
airFlowTemperature		GET	number	0xBD	吹き出し温度計測値 Measured cooled air temperature	*1
outdoorTemperature		GET	number	0xBE	外気温度計測値 Measured outdoor air temperature	*1

*1 AIF対応プロパティ

Device Description

```
{
  "deviceType": "homeAirConditioner",
  "eoj": "0x0130",
  "descriptions": {"ja": "家庭用エアコン", "en": "Home Air Conditioner"},
  "properties": {
    "powerSaving": {
      "epc": "0x8F",
      "descriptions": {"ja": "節電動作設定", "en": "Power-saving operation setting"},
      "writable": true,
      "observable": true,
      "schema": {
        "type": "boolean",
        "values": [
          {"value": true, "descriptions": {"ja": "節電動作", "en": "Power saving operation"}}, {"value": false, "descriptions": {"ja": "通常動作", "en": "Normal operation"}}, {"value": true, "descriptions": {"ja": "節電動作", "en": "Power saving operation"}}, {"value": false, "descriptions": {"ja": "通常動作", "en": "Normal operation"}}
        ]
      }
    }
  }
}
```

```

    },
    "airFlowLevel":{
      "epc":"0xA0",
      "descriptions":{"ja":"風量設定", "en":"Air flow rate setting" },
      "writable":true,
      "observable":true,
      "schema":{
        "oneOf":[
          {
            "type":"number",
            "minimum":1,
            "maximum":8
          },
          {
            "type":"string",
            "enum":["auto"],
            "values":[
              {"value":"auto", "descriptions":{"ja":"自動", "en":"Auto"},
"edt":"0x41"}
            ]
          }
        ]
      }
    },
    "operationMode":{
      "epc":"0xB0",
      "descriptions":{"ja":"運転モード設定", "en":"Operation mode setting" },
      "writable":true,
      "observable":true,
      "schema":{
        "type":"string",
        "enum":["auto", "cooling", "heating", "dehumidification", "circulation",
"other"],
        "values":[
          {"value":"auto", "descriptions":{"ja":"自動", "en":"Auto"},
"edt":"0x41"},
          {"value":"cooling", "descriptions":{"ja":"冷房", "en":"Cooling"},
"edt":"0x42"},
          {"value":"heating", "descriptions":{"ja":"暖房", "en":"Heating"},
"edt":"0x43"},
          {"value":"dehumidification", "descriptions":{"ja":"除湿",
"en":"Dehumidification"}, "edt":"0x44"},
          {"value":"circulation", "descriptions":{"ja":"送風",
"en":"Circulation"}, "edt":"0x45"},
          {"value":"other", "descriptions":{"ja":"その他", "en":"Other"},
"edt":"0x40"}
        ]
      }
    },
    "targetTemperature":{
      "epc":"0xB3",
      "descriptions":{"ja":"温度設定値", "en":"Set temperature value" },
      "writable":true,
      "observable":false,
      "schema":{
        "type":"number",

```

```
        "unit": "Celsius",
        "minimum": 0,
        "maximum": 50
    }
},
"humidity": {
    "epc": "0xBA",
    "descriptions": {
        "ja": "室内相对湿度計測値",
        "en": "Measured value of room relative humidity"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "%",
        "minimum": 0,
        "maximum": 100
    }
},
"roomTemperature": {
    "epc": "0xBB",
    "descriptions": { "ja": "室内温度計測値", "en": "Measured value of room
temperature" },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Celsius",
        "minimum": -127,
        "maximum": 125
    }
},
"airFlowTemperature": {
    "epc": "0xBD",
    "descriptions": { "ja": "吹き出し温度計測値", "en": "Measured cooled air
temperature" },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Celsius",
        "minimum": -127,
        "maximum": 125
    }
},
"outdoorTemperature": {
    "epc": "0xBE",
    "descriptions": { "ja": "外気温度計測値", "en": "Measured outdoor air temperature"
},
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Celsius",
        "minimum": -127,
```

```

    "maximum":125
  }
}
}

```

電気温水器:electricWaterHeater:0x026B

Properties

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
automaticWaterHeating	GET, PUT	string	0xB0	沸き上げ自動設定 Automatic water heating setting	*1
waterHeatingStatus	GET	boolean	0xB2	沸き上げ中状態 Water heater status	*1
daytimeReheatingPermission	GET, PUT	boolean	0xC0	昼間沸き増し許可設定 Daytime reheating permission setting	*1
alarmStatus	GET	object	0xC2	警報発生状態 Alarm status	*1
hotWaterSupplyStatus	GET	boolean	0xC3	給湯中状態 Hot water supply status	*1
energyShiftParticipation	GET, PUT	boolean	0xC7	エネルギーシフト参加状態 Participation in energy shift	*1
waterHeatingStartTime	GET	number	0xC8	沸き上げ開始基準時刻 Standard time to start heating	*1
numberOfEnergyShifts	GET	number	0xC9	エネルギーシフト回数 Number Of Energy Shifts	*1
waterHeatingTime1	GET, PUT	number	0xCA	昼間沸き上げシフト時刻1 Daytime heating shift time 1	*1
estimatedEnergyConsumption1	GET	object	0xCB	昼間沸き上げシフト時刻1での沸き上げ予測電力量 Expected electric energy at daytime heating shift time 1	*1
energyConsumptionRate1	GET	object	0xCC	時間あたり消費電力量1 Consumption of electric energy per hour 1	*1
waterHeatingTime2	GET, PUT	number	0xCD	昼間沸き上げシフト時刻2 Daytime heating shift time 2	*1

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
estimatedEnergyConsumption2	GET	object	0xCE	昼間沸き上げシフト時刻2での沸き上げ予測電力量 Expected electric energy at daytime heating shift time 2	*1
energyConsumptionRate2	GET	object	0xCF	時間あたり消費電力量2 Consumption of electric energy per hour 2	*1
automaticBathOperation	GET, PUT	boolean	0xE3	風呂自動モード設定 Automatic bath water heating mode setting	*1
bathOperationMode	GET	string	0xEA	風呂動作状態監視 Bath operation status monitor	*1

*1 AIF対応プロパティ

Device Description

```
{
  "deviceType": "electricWaterHeater",
  "eoj": "0x026B",
  "descriptions": { "ja": "電気温水器", "en": "Electric WaterHeater" },
  "properties": {
    "automaticWaterHeating": {
      "epc": "0xB0",
      "descriptions": { "ja": "沸き上げ自動設定", "en": "Automatic water heating setting"
    },
    "writable": true,
    "observable": true,
    "schema": {
      "type": "string",
      "enum": [ "auto", "manualNoHeating", "manualHeating" ],
      "values": [
        { "value": "auto", "descriptions": { "ja": "自動沸き上げ", "en": "Auto Heating" }, "edt": "0x41" },
        { "value": "manualNoHeating", "descriptions": { "ja": "手動沸き上げ停止", "en": "Manual No Heating" }, "edt": "0x43" },
        { "value": "manualHeating", "descriptions": { "ja": "手動沸き上げ", "en": "Manual Heating" }, "edt": "0x42" }
      ]
    }
  },
  "waterHeatingStatus": {
    "epc": "0xB2",
    "descriptions": { "ja": "沸き上げ中状態", "en": "Water heater status" },
    "writable": false,
    "observable": true,
    "schema": {
      "type": "boolean",

```

```

        "values":[
            {"value":true, "descriptions":{"ja":"沸き上げ中", "en":"Heating"},
"edt":"0x41"},
            {"value":false, "descriptions":{"ja":"沸き上げ無し", "en":"Not
Heating"}, "edt":"0x42"}
        ]
    },
    "daytimeReheatingPermission":{
        "epc":"0xC0",
        "descriptions":{"
            "ja":"昼間沸き増し許可設定",
            "en":"Daytime reheating permission setting"
        },
        "writable":true,
        "observable":false,
        "schema":{
            "type":"boolean",
            "values":[
                {"value":true, "descriptions":{"ja":"許可", "en":"Permitted"},
"edt":"0x41"},
                {"value":false, "descriptions":{"ja":"禁止", "en":"Not Permitted"},
"edt":"0x42"}
            ]
        }
    },
    "alarmStatus":{
        "epc":"0xC2",
        "descriptions":{" ja":"警報発生状態", "en":"Alarm status" },
        "writable":false,
        "observable":true,
        "schema":{
            "type":"object",
            "properties":{
                "noHotWater":{
                    "type":"boolean",
                    "values":[
                        {"value":true, "descriptions":{"ja":"発生", "en":"Alarm"},
"edt":0},
                        {"value":false, "descriptions":{"ja":"正常", "en":"No Alarm"},
"edt":1}
                    ]
                },
                "leaking":{
                    "type":"boolean",
                    "values":[
                        {"value":true, "descriptions":{"ja":"発生", "en":"Alarm"},
"edt":0},
                        {"value":false, "descriptions":{"ja":"正常", "en":"No Alarm"},
"edt":1}
                    ]
                },
                "freezing":{
                    "type":"boolean",
                    "values":[
                        {"value":true, "descriptions":{"ja":"発生", "en":"Alarm"},

```

```
"edt":0},
                                {"value":false, "descriptions":{"ja":"正常", "en":"No Alarm"},
"edt":1}
                                ]
                                }
                                }
                                },
                                },
                                "hotWaterSupplyStatus":{
                                "epc":"0xC3",
                                "descriptions":{"ja":"給湯中状態", "en":"Hot water supply status" },
                                "writable":false,
                                "observable":true,
                                "schema":{
                                "type":"boolean",
                                "values":[
                                {"value":true, "descriptions":{"ja":"給湯中", "en":"Supplying"},
"edt":"0x41"},
                                {"value":false, "descriptions":{"ja":"非給湯中", "en":"Not Supplying"},
"edt":"0x42"}
                                ]
                                }
                                },
                                "energyShiftParticipation":{
                                "epc":"0xC7",
                                "descriptions":{"ja":"エネルギーシフト参加状態", "en":"Participation in energy
shift"},
                                "writable":true,
                                "observable":false,
                                "schema":{
                                "type":"boolean",
                                "values":[
                                {"value":true, "descriptions":{"ja":"参加", "en":"Participation"},
"edt":"0x01"},
                                {"value":false, "descriptions":{"ja":"不参加", "en":"Non
Participation"}, "edt":"0x00"}
                                ]
                                }
                                },
                                "standardTimeToStartHeating":{
                                "epc":"0xC8",
                                "descriptions":{"ja":"沸き上げ開始基準時刻", "en":"Standard time to start
heating" },
                                "writable":false,
                                "observable":false,
                                "schema":{
                                "type":"string",
                                "format":"time"
                                }
                                },
                                },
                                "numberOfEnergyShifts":{
                                "epc":"0xC9",
                                "descriptions":{"ja":"エネルギーシフト回数", "en":"Number Of Energy Shifts" },
                                "writable":false,
                                "observable":false,
                                "schema":{
```

```

        "type":"number",
        "minimum":1,
        "maximum":2,
        "multipleOf":1
    }
},
"waterHeatingShiftTime1":{
    "epc":"0xCA",
    "descriptions":{ "ja":"昼間沸き上げシフト時刻1", "en":"Daytime heating shift
time 1" },
    "writable":true,
    "observable":false,
    "schema":{
        "type":"string",
        "format":"time",
        "enum":
["9:00:00","10:00:00","11:00:00","12:00:00","13:00:00","14:00:00","15:00:00","16:00:00","1
7:00:00"]
    }
},
"estimatedElectricEnergyAtShiftTime1":{
    "epc":"0xCB",
    "descriptions":{
        "ja":"昼間沸き上げシフト時刻1での沸き上げ予測電力量",
        "en":"Expected electric energy at daytime heating shift time 1"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"object",
        "properties":{
            "at1000":{
                "type":"number",
                "unit":"Wh"
            },
            "at1300":{
                "type":"number",
                "unit":"Wh"
            },
            "at1500":{
                "type":"number",
                "unit":"Wh"
            },
            "at1700":{
                "type":"number",
                "unit":"Wh"
            }
        }
    }
},
"electricEnergyConsumptionRate1":{
    "epc":"0xCC",
    "descriptions":{ "ja":"時間あたり消費電力量1", "en":"Consumption of electric
energy per hour 1" },
    "writable":false,
    "observable":false,

```



```

    "schema":{
      "type":"object",
      "properties":{
        "at1000":{
          "type":"number",
          "unit":"Wh"
        },
        "at1300":{
          "type":"number",
          "unit":"Wh"
        },
        "at1500":{
          "type":"number",
          "unit":"Wh"
        },
        "at1700":{
          "type":"number",
          "unit":"Wh"
        }
      }
    }
  },
  "waterHeatingShiftTime2":{
    "epc":"0xCD",
    "descriptions":{"ja":"昼間沸き上げシフト時刻2", "en":"Daytime heating shift
time 2" },
    "writable":true,
    "observable":false,
    "schema":{
      "type":"string",
      "format":"time",
      "enum":
["9:00:00","10:00:00","11:00:00","12:00:00","13:00:00","14:00:00","15:00:00","16:00:00","1
7:00:00"]
    }
  },
  "estimatedElectricEnergyAtShiftTime2":{
    "epc":"0xCE",
    "descriptions":{"
ja":"昼間沸き上げシフト時刻2での沸き上げ予測電力量",
en":"Expected electric energy at daytime heating shift time 2"
},
    "writable":false,
    "observable":false,
    "schema":{
      "type":"object",
      "properties":{
        "at1000":{
          "type":"number",
          "unit":"Wh"
        },
        "at1300":{
          "type":"number",
          "unit":"Wh"
        },
        "at1500":{

```

```
        "type": "number",
        "unit": "Wh"
      },
      "at1700": {
        "type": "number",
        "unit": "Wh"
      }
    }
  },
  "electricEnergyConsumptionRate2": {
    "epc": "0xCF",
    "descriptions": { "ja": "時間あたり消費電力量2", "en": "Consumption of electric
energy per hour 2" },
    "writable": false,
    "observable": false,
    "schema": {
      "type": "object",
      "properties": {
        "at1300": {
          "type": "number",
          "unit": "Wh"
        },
        "at1500": {
          "type": "number",
          "unit": "Wh"
        },
        "at1700": {
          "type": "number",
          "unit": "Wh"
        }
      }
    }
  },
  "automaticBathOperation": {
    "epc": "0xE3",
    "descriptions": {
      "ja": "風呂自動モード設定",
      "en": "Automatic Bath Water Heating Mode Setting"
    },
    "writable": true,
    "observable": false,
    "schema": {
      "type": "boolean",
      "values": [
        { "value": true, "descriptions": { "ja": "自動", "en": "Auto" },
"edt": "0x41" },
        { "value": false, "descriptions": { "ja": "非自動", "en": "Non Auto" },
"edt": "0x42" }
      ]
    }
  },
  "bathOperationMode": {
    "epc": "0xEA",
    "descriptions": { "ja": "風呂動作状態監視", "en": "Bath Operation Status Monitor"
},
```

```

        "writable":false,
        "observable":true,
        "schema":{
            "type":"string",
            "enum":["runningHotWater", "noOperation", "keepingTemperature"],
            "values":[
                {"value":"runningHotWater", "descriptions":{"ja":"湯張り中",
"en":"Running Hot Water"}, "edt":"0x41"},
                {"value":"noOperation", "descriptions":{"ja":"停止中", "en":"No
Operation"}, "edt":"0x42"},
                {"value":"keepingTemperature", "descriptions":{"ja":"保温中",
"en":"Keeping Temperature"}, "edt":"0x43"}
            ]
        }
    }
}
}

```

瞬間式給湯器:instantaneousWaterHeater:0x0272

Properties

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
hotWaterHeatingStatus	GET	boolean	0xD0	給湯器燃焼状態 Hot water heating status	*1
bathWaterHeatingStatus	GET	boolean	0xE2	風呂給湯器燃焼状態 Bath water heater status	*1
automaticBathOperation	GET, PUT	boolean	0xE3	風呂自動モード設定 Bath auto mode setting	*1
bathOperationStatus	GET	string	0xEF	風呂動作状態監視 Bath operation status monitor	

*1 AIF対応プロパティ

Device Description

```

{
    "deviceType":"instantaneousWaterHeater",
    "eoj":"0x0272",
    "descriptions":{"ja":"瞬間式給湯器", "en":"Instantaneous Water Heater"},
    "properties":{
        "hotWaterHeatingStatus":{
            "epc":"0xD0",
            "descriptions":{"ja":"給湯器燃焼状態", "en":"Hot water heating status" },
            "writable":false,
            "observable":false,
            "schema":{
                "type":"boolean",
                "values":[
                    {"value":true, "descriptions":{"ja":"燃焼状態有", "en":"Heating"}},

```

```

"edt":"0x41"},
        {"value":false, "descriptions":{"ja":"燃烧状態無", "en":"Not Heating"},
"edt":"0x42"}
    ]
    }
},
"bathWaterHeatingStatus":{
    "epc":"0xE2",
    "descriptions":{"ja":"風呂給湯器燃烧状態", "en":"Bath water heater status" },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"boolean",
        "values":[
            {"value":true, "descriptions":{"ja":"燃烧状態有", "en":"Heating"},
"edt":"0x41"},
            {"value":false, "descriptions":{"ja":"燃烧状態無", "en":"Not Heating"},
"edt":"0x42"}
        ]
    }
},
"automaticBathOperation":{
    "epc":"0xE3",
    "descriptions":{"ja":"風呂自動モード設定", "en":"Bath auto mode setting" },
    "writable":true,
    "observable":false,
    "schema":{
        "type":"boolean",
        "values":[
            {"value":true, "descriptions":{"ja":"ON", "en":"ON"}, "edt":"0x41"},
            {"value":false, "descriptions":{"ja":"OFF", "en":"OFF"}, "edt":"0x42"}
        ]
    }
},
"bathOperationStatus":{
    "epc":"0xEF",
    "descriptions":{"ja":"風呂動作状態監視", "en":"Bath operation status monitor"
},
    "writable":false,
    "observable":true,
    "schema":{
        "type":"string",
        "enum":["runningHotWater", "noOperation", "keepingTemperature"],
        "values":[
            {"value":"runningHotWater", "descriptions":{"ja":"湯張り中",
"en":"Running Hot Water"}, "edt":"0x41"},
            {"value":"noOperation", "descriptions":{"ja":"停止中", "en":"No
Operation"}, "edt":"0x42"},
            {"value":"keepingTemperature", "descriptions":{"ja":"保温中",
"en":"Keeping Temperature"}, "edt":"0x43"}
        ]
    }
}
}
}
}

```

住宅用太陽光発電:pvPowerGeneration:0x0279

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
instantaneousElectricPowerOfGeneration	GET	number	0xE0	瞬時発電電力計測値 Measured instantaneous amount of electricity generated	*1
cumulativeElectricEnergyOfGeneration	GET	number	0xE1	積算発電電力量計測値 Measured cumulative amount of electric energy generated	*1

*1 AIF対応プロパティ

Device Description

```
{
  "deviceType": "pvPowerGeneration",
  "eoj": "0x0279",
  "descriptions": { "ja": "住宅用太陽光発電", "en": "PV Power Generation" },
  "properties": {
    "instantaneousElectricPowerOfGeneration": {
      "epc": "0xE0",
      "descriptions": {
        "ja": "瞬時発電電力計測値",
        "en": "Measured instantaneous amount of electricity generated"
      },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "unit": "W"
      }
    },
    "cumulativeElectricEnergyOfGeneration": {
      "epc": "0xE1",
      "descriptions": {
        "ja": "積算発電電力量計測値",
        "en": "Measured cumulative amount of electric energy generated"
      },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "unit": "kWh",
        "multipleOf": 0.001
      }
    }
  }
}
```

燃料電池:fuelCell:0x027C

Properties

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
ratedElectricPowerOfGeneration	GET	number	0xC2	定格発電出力 Rated power generation output	*1
instantaneousElectricPowerOfGeneration	GET	number	0xC4	瞬時発電電力計測値 Measured instantaneous power generation output	*1
cumulativeElectricEnergyOfGeneration	GET	number	0xC5	積算発電電力量計測値 Measured cumulative power generation output	*1
powerGenerationStatus	GET	string	0xCB	発電動作状態 Power generation status	*1
powerSystemInterconnectionStatus	GET	string	0xD0	系統連系状態 System interconnected type	*1
requestedTimeOfGeneration	GET, PUT	object	0xD1	発電要請時刻設定 Power generation request time setting	*1
powerGenerationMode	GET, PUT	string	0xD2	指定発電状態 Assigned power generation status	*1

*1 AIF対応プロパティ

Device Description

```
{
  "deviceType": "fuelCell",
  "eoj": "0x027C",
  "descriptions": {"ja": "燃料電池", "en": "Fuel Cell"},
  "properties": {
    "ratedElectricPowerOfGeneration": {
      "epc": "0xC2",
      "descriptions": {
        "ja": "定格発電出力",
        "en": "Rated power generation output"
      },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "unit": "W",
        "minimum": 0,

```

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        "maximum":65533
    }
},
"instantaneousElectricPowerOfGeneration":{
    "epc":"0xC4",
    "descriptions":{
        "ja":"瞬時発電電力計測値",
        "en":"Measured instantaneous power generation output"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"W",
        "minimum":0,
        "maximum":65533
    }
},
"cumulativeElectricEnergyOfGeneration":{
    "epc":"0xC5",
    "descriptions":{
        "ja":"積算発電電力量計測値",
        "en":"Measured cumulative power generation output"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"kWh",
        "minimum":0,
        "maximum":999999.999,
        "multipleOf":0.001
    }
},
"powerGenerationStatus":{
    "epc":"0xCB",
    "descriptions":{ "ja":"発電動作状態", "en":"Power generation status" },
    "writable":false,
    "observable":true,
    "schema":{
        "type":"string",
        "enum":["generating", "stopped", "starting", "stopping", "idling"],
        "values":[
            {"value":"generating", "descriptions":{"ja":"発電中",
"en":"Generating"}, "edt":"0x41"},
            {"value":"stopped", "descriptions":{"ja":"停止中", "en":"Stopped"},
"edt":"0x42"},
            {"value":"starting", "descriptions":{"ja":"起動中", "en":"Starting"},
"edt":"0x43"},
            {"value":"stopping", "descriptions":{"ja":"停止動作中",
"en":"Stopping"}, "edt":"0x44"},
            {"value":"idling", "descriptions":{"ja":"アイドル中", "en":"Idling"},
"edt":"0x45"}
        ]
    }
},

```

```

    "powerSystemInterconnectionStatus":{
      "epc":"0xD0",
      "descriptions":{"ja":"系統連系状態", "en":"System interconnected type" },
      "writable":false,
      "observable":false,
      "schema":{
        "type":"string",
        "enum":["reversePowerFlowAcceptable", "independent",
"reversePowerFlowNotAcceptable"],
        "values":[
          {
            "value":"reversePowerFlowAcceptable",
            "descriptions":{"
              "ja":"系統連系（逆潮流可）",
              "en":"System Interconnected Type(revese power flow
acceptable)"
            },
            "edt":"0x00"
          },
          {
            "value":"independent",
            "descriptions":{"
              "ja":"独立",
              "en":"Independent Type"
            },
            "edt":"0x01"
          },
          {
            "value":"reversePowerFlowNotAcceptable",
            "descriptions":{"
              "ja":"系統連系（逆潮流不可）",
              "en":"System Interconnected Type(revese power flow not
acceptable)"
            },
            "edt":"0x02"
          }
        ]
      }
    },
    "requestedTimeOfGeneration":{
      "epc":"0xD1",
      "descriptions":{"ja":"発電要請時刻設定", "en":"Power generation request time
setting" },
      "writable":true,
      "observable":false,
      "schema":{
        "type":"object",
        "properties":{
          "startTime":{
            "type":"string",
            "format":"time"
          },
          "endTime":{
            "type":"string",
            "format":"time"
          }
        }
      }
    }
  }

```


Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
dischargeableElectricEnergy	GET	number	0xA5	放電可能量 AC dischargeable electric energy	*1
cumulativeChargingElectricEnergy	GET	number	0xA8	AC積算充電電力量計測値 AC measured cumulative charging electric energy	*1
cumulativeDischargingElectricEnergy	GET	number	0xA9	AC積算放電電力量計測値 AC measured cumulative discharging electric energy	*1
targetChargingElectricEnergy	GET, PUT	number	0xAA	AC充電量設定値 AC charge amount setting value	*1
targetDischargingElectricEnergy	GET, PUT	number	0xAB	AC放電量設定値 AC discharge amount setting value	*1
minimumAndMaximumChargingElectricPower	GET	object	0xC8	最小最大充電電力値 Minimum/maximum charging electric energy	*1
minimumAndMaximumDischargingElectricPower	GET	object	0xC9	最小最大放電電力値 Minimum/maximum discharging electric energy	*1
actualOperationMode	GET	string	0xCF	運転動作状態 Working operation status	*1
ratedElectricEnergy	GET	number	0xD0	定格電力量 Rated electric energy	*1
ratedCapacity	GET	number	0xD1	定格容量 Rated capacity	*1
ratedVoltage	GET	number	0xD2	定格電圧 Rated voltage	*1
operationMode	GET, PUT	string	0xDA	運転モード設定 Operation mode setting	*1

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
powerSystemInterconnectionStatus	GET	string	0xDB	系統連系状態 System interconnected type	*1
remainingCapacity1	GET	number	0xE2	蓄電残量1 Remaining stored electricity 1	*1
remainingCapacity2	GET	number	0xE3	蓄電残量2 Remaining stored electricity 2	*1
remainingCapacity3	GET	number	0xE4	蓄電残量3 Remaining stored electricity 3	*1
batteryType	GET	string	0xE6	蓄電池タイプ Battery type	*1

*1 AIF対応プロパティ

Device Description

```
{
  "deviceType": "storageBattery",
  "eoj": "0x027D",
  "descriptions": { "ja": "蓄電池", "en": "Storage Battery" },
  "properties": {
    "effectiveChargingCapacity": {
      "epc": "0xA0",
      "descriptions": { "ja": "AC実効容量 (充電)", "en": "AC effective capacity(charging)" },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
      }
    },
    "effectiveDischargingCapacity": {
      "epc": "0xA1",
      "descriptions": {
        "ja": "AC実効容量 (放電)",
        "en": "AC effective capacity(discharging)"
      },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",

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```

        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
    }
},
"chargeableCapacity": {
    "epc": "0xA2",
    "descriptions": { "ja": "充電可能容量", "en": "AC chargeable capacity" },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
    }
},
"dischargeableCapacity": {
    "epc": "0xA3",
    "descriptions": { "ja": "放電可能容量", "en": "AC dischargeable capacity" },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
    }
},
"chargeableElectricEnergy": {
    "epc": "0xA4",
    "descriptions": { "ja": "充電可能量", "en": "AC chargeable electric energy" },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
    }
},
"dischargeableElectricEnergy": {
    "epc": "0xA5",
    "descriptions": { "ja": "放電可能量", "en": "AC dischargeable electric energy" },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
    }
},
"cumulativeChargingElectricEnergy": {
    "epc": "0xA8",
    "descriptions": {

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        "ja": "AC積算充電電力量計測値",
        "en": "AC measured cumulative charging electric energy"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "kWh",
        "minimum": 0,
        "maximum": 999999.999,
        "multipleOf": 0.001
    }
},
"cumulativeDischargingElectricEnergy": {
    "epc": "0xA9",
    "descriptions": {
        "ja": "AC積算放電電力量計測値",
        "en": "AC measured cumulative discharging electric energy"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "kWh",
        "minimum": 0,
        "maximum": 999999.999,
        "multipleOf": 0.001
    }
},
"targetChargingElectricEnergy": {
    "epc": "0xAA",
    "descriptions": { "ja": "AC充電量設定値", "en": "AC charge amount setting value"
},
    "writable": true,
    "observable": true,
    "schema": {
        "type": "number",
        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
    }
},
"targetDischargingElectricEnergy": {
    "epc": "0xAB",
    "descriptions": { "ja": "AC放電量設定値", "en": "AC discharge amount setting
value" },
    "writable": true,
    "observable": true,
    "schema": {
        "type": "number",
        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
    }
},
"minimumAndMaximumChargingElectricPower": {

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```

    "epc": "0xC8",
    "descriptions": {
      "ja": "最小最大充電電力値",
      "en": "Minimum/maximum charging electric energy"
    },
    "writable": false,
    "observable": false,
    "schema": {
      "type": "object",
      "properties": {
        "minimumElectricPower": {
          "type": "number",
          "unit": "W",
          "minimum": 0,
          "maximum": 999999999
        },
        "maximumElectricPower": {
          "type": "number",
          "unit": "W",
          "minimum": 0,
          "maximum": 999999999
        }
      }
    }
  },
  "minimumAndMaximumDischargingElectricPower": {
    "epc": "0xC9",
    "descriptions": {
      "ja": "最小最大放電電力値",
      "en": "Minimum/maximum discharging electric energy"
    },
    "writable": false,
    "observable": false,
    "schema": {
      "type": "object",
      "properties": {
        "minimumElectricPower": {
          "type": "number",
          "unit": "W",
          "minimum": 0,
          "maximum": 999999999
        },
        "maximumElectricPower": {
          "type": "number",
          "unit": "W",
          "minimum": 0,
          "maximum": 999999999
        }
      }
    }
  },
  "actualOperationMode": {
    "epc": "0xCF",
    "descriptions": { "ja": "運転動作状態", "en": "Working operation status" },
    "writable": false,
    "observable": true,

```

```

        "schema":{
            "type":"string",
            "enum":["rapidCharging", "charging", "discharging", "standby", "test",
"auto", "restart", "capacityRecalculation", "other"],
            "values":[
                {"value":"rapidCharging", "descriptions":{"ja":"急速充電",
"en":"rapidCharging"}, "edt":"0x41"},
                {"value":"charging", "descriptions":{"ja":"充電", "en":"charging"},
"edt":"0x42"},
                {"value":"discharging", "descriptions":{"ja":"放電",
"en":"discharging"}, "edt":"0x43"},
                {"value":"standby", "descriptions":{"ja":"待機", "en":"standby"},
"edt":"0x44"},
                {"value":"test", "descriptions":{"ja":"テスト", "en":"test"},
"edt":"0x45"},
                {"value":"auto", "descriptions":{"ja":"自動", "en":"auto"},
"edt":"0x46"},
                {"value":"restart", "descriptions":{"ja":"再起動", "en":"restart"},
"edt":"0x48"},
                {"value":"capacityRecalculation", "descriptions":{"ja":"実行容量再計算
処理", "en":"capacityRecalculation"}, "edt":"0x49"},
                {"value":"other", "descriptions":{"ja":"その他", "en":"other"},
"edt":"0x40"}
            ]
        }
    },
    "ratedElectricEnergy":{
        "epc":"0xD0",
        "descriptions":{"ja":"定格電力量", "en":"Rated electric energy" },
        "writable":false,
        "observable":false,
        "schema":{
            "type":"number",
            "unit":"Wh",
            "minimum":0,
            "maximum":999999999
        }
    },
    "ratedCapacity":{
        "epc":"0xD1",
        "descriptions":{"ja":"定格容量", "en":"Rated capacity" },
        "writable":false,
        "observable":false,
        "schema":{
            "type":"number",
            "unit":"Ah",
            "minimum":0,
            "maximum":3276.6,
            "multipleOf":0.1
        }
    },
    "ratedVoltage":{
        "epc":"0xD2",
        "descriptions":{"ja":"定格電圧", "en":"Rated voltage" },
        "writable":false,
        "observable":false,

```

```

        "schema":{
            "type":"number",
            "unit":"V",
            "minimum":0,
            "maximum":32766
        }
    },
    "operationMode":{
        "epc":"0xDA",
        "descriptions":{"ja":"運転モード設定", "en":"Operation mode setting" },
        "writable":true,
        "observable":true,
        "schema":{
            "type":"string",
            "enum":["rapidCharging", "charging", "discharging", "standby", "test",
"auto", "restart", "capacityRecalculation", "other"],
            "values":[
                {"value":"rapidCharging", "descriptions":{"ja":"急速充電",
"en":"rapidCharging"}, "edt":"0x41"},
                {"value":"charging", "descriptions":{"ja":"充電", "en":"charging"},
"edt":"0x42"},
                {"value":"discharging", "descriptions":{"ja":"放電",
"en":"discharging"}, "edt":"0x43"},
                {"value":"standby", "descriptions":{"ja":"待機", "en":"standby"},
"edt":"0x44"},
                {"value":"test", "descriptions":{"ja":"テスト", "en":"test"},
"edt":"0x45"},
                {"value":"auto", "descriptions":{"ja":"自動", "en":"auto"},
"edt":"0x46"},
                {"value":"restart", "descriptions":{"ja":"再起動", "en":"restart"},
"edt":"0x48"},
                {"value":"capacityRecalculation", "descriptions":{"ja":"実行容量再計算
処理", "en":"capacityRecalculation"}, "edt":"0x49"},
                {"value":"other", "descriptions":{"ja":"その他", "en":"other"},
"edt":"0x40"}
            ]
        },
        "note":{
            "ja":"このプロパティをGetして取得できる値は設定値である。実際の運転状態は
actualOperationModeをGETすること",
            "en":"The value you get with this property is the value you set. Get
actualOperationMode for the current status."
        }
    },
    "powerSystemInterconnectionStatus":{
        "epc":"0xDB",
        "descriptions":{"ja":"系統連系状態", "en":"System interconnected type" },
        "writable":false,
        "observable":false,
        "schema":{
            "type":"string",
            "enum":["reversePowerFlowAcceptable", "independent",
"reversePowerFlowNotAcceptable"],
            "values":[
                {
                    "value":"reversePowerFlowAcceptable",

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```

        "descriptions":{
            "ja":"系統連系（逆潮流可）",
            "en":"System Interconnected Type(reverse power flow
acceptable)"
        },
        "edt":"0x00"
    },
    {
        "value":"independent",
        "descriptions":{
            "ja":"独立",
            "en":"Independent Type"
        },
        "edt":"0x01"
    },
    {
        "value":"reversePowerFlowNotAcceptable",
        "descriptions":{
            "ja":"系統連系（逆潮流不可）",
            "en":"System Interconnected Type(reverse power flow not
acceptable)"
        },
        "edt":"0x02"
    }
}
]
},
"remainingCapacity1":{
    "epc":"0xE2",
    "descriptions":{ "ja":"蓄電残量1", "en":"Remaining stored electricity 1" },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"Wh",
        "minimum":0,
        "maximum":999999999
    }
},
"remainingCapacity2":{
    "epc":"0xE3",
    "descriptions":{ "ja":"蓄電残量2", "en":"Remaining stored electricity 2" },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"Ah",
        "minimum":0,
        "maximum":3276.6,
        "multipleOf":0.1
    }
},
"remainingCapacity3":{
    "epc":"0xE4",
    "descriptions":{ "ja":"蓄電残量3", "en":"Remaining stored electricity 3" },
    "writable":false,

```


Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
dischargeableCapacity2	GET	number	0xC1	車載電池の放電可能容量値2 Dischargeable capacity of vehicle mounted battery 2	*1
remainingDischargeableCapacity1	GET	number	0xC2	車載電池の放電可能残容量1 Remaining dischargeable capacity of vehicle mounted battery 1	*1
remainingDischargeableCapacity2	GET	number	0xC3	車載電池の放電可能残容量2 Remaining dischargeable capacity of vehicle mounted battery 2	*1
remainingDischargeableCapacity3	GET	number	0xC4	車載電池の放電可能残容量3 Remaining dischargeable capacity of vehicle mounted battery 3	*1
ratedChargeElectricPower	GET	number	0xC5	定格充電能力 Rated charge capacity	*1
ratedDischargeElectricPower	GET	number	0xC6	定格放電能力 Rated discharge capacity	*1
chargeDischargeStatus	GET	string	0xC7	車両接続・充放電可否状態 Vehicle connection and chargeable/dischargeable status	*1
minimumAndMaximumChargingElectricPower	GET	object	0xC8	最小大充電電力値 Minimum/maximum charging electric energy	*1
minimumAndMaximumDischargingElectricPower	GET	object	0xC9	最小最大放電電力値 Minimum/maximum discharging electric energy	*1
minimumAndMaximumChargingCurrent	GET	object	0xCA	最小大充電電流値 Minimum/maximum charging current	*1

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
minimumAndMaximumDischargingCurrent	GET	object	0xCB	最小最大放電電流値 Minimum/maximum discharging current	*1
equipmentType	GET	string	0xCC	充放電器タイプ Charger/Discharger type	*1
chargeableCapacity	GET	number	0xCE	車載電池の充電可能容量値 Chargeable capacity of vehicle mounted battery	*1
remainingChargeableCapacity	GET	number	0xCF	車載電池の充電可能残容量値 Remaining Chargeable capacity of vehicle mounted battery	*1
usedCapacity1	GET	number	0xD0	車載電池の使用容量値1 Used capacity of vehicle mounted battery 1	*1
usedCapacity2	GET	number	0xD1	車載電池の使用容量値2 Used capacity of vehicle mounted battery 2	*1
ratedVoltage	GET	number	0xD2	定格電圧 Rated voltage	*1
instantaneousElectricPower	GET	number	0xD3	瞬時充放電電力計測値 Measured instantaneous charging/discharging electric energy	*1
instantaneousCurrent	GET	number	0xD4	瞬時充放電電流計測値 Measured instantaneous charging/discharging electric current	*1
instantaneousVoltage	GET	number	0xD5	瞬時充放電電圧計測値 Measured instantaneous charging/discharging electric voltage	*1
cumulativeDischargingElectricEnergy	GET	number	0xD6	積算放電電力量計測 Measured cumulative amount of discharging electric energy	*1

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
resetCumulativeDischargingElectricEnergy	SET	number	0xD7	積算放電電力量リセット設定 Cumulative amount of discharging electric energy reset setting	*1
cumulativeChargingElectricEnergy	GET	number	0xD8	積算充電電力量計測値 Measured cumulative amount of charging electric energy	*1
resetCumulativeChargingElectricEnergy	SET	number	0xD9	積算充電電力量リセット設定 Cumulative amount of Charging electric energy reset setting	*1
operationMode	GET, PUT	string	0xDA	運転モード設定 Operation mode setting	*1
powerSystemInterconnectionStatus	GET	string	0xDB	系統連系状態 System interconnected type	*1
remainingCapacity1	GET	number	0xE2	車載電池の電池残容量1 Remaining stored electricity of vehicle mounted battery1	*1
remainingCapacity2	GET	number	0xE3	車載電池の電池残容量2 Remaining stored electricity of vehicle mounted battery2	*1
remainingCapacity3	GET	number	0xE4	車載電池の電池残容量3 Remaining stored electricity of vehicle mounted battery3	*1
vehicleId	GET	string	0xE6	車両ID Identification of electric vehicle	*1
targetChargingElectricEnergy1	GET, PUT	number	0xE7	充電量設定値1 Charging amount 1	*1
targetChargingElectricEnergy2	GET, PUT	number	0xE9	充電量設定値2 Charging amount 2	*1

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
targetDischargingElectricEnergy	GET, PUT	number	0xEA	放電量設定値 Discharging amaout setting	*1
chargingElectricPower	GET, PUT	number	0xEB	充電電力設定値 Charging electrnic energy setting	*1
dischargingElectricPower	GET, PUT	number	0xEC	放電電力設定値 Discharging electrnic energy setting	*1
chargingCurrent	GET, PUT	number	0xED	充電電流設定値 Charging current setting	*1
dischargingCurrent	GET, PUT	number	0xEE	放電電流設定値 Discharging current setting	*1
ratedVoltageOfIndependentOperation	GET	number	0xEF	定格電圧（独立時） Rated voltage(Independent)	*1

*1 AIF対応プロパティ

Device Description

```
{
  "deviceType": "evChargerDischarger",
  "eoj": "0x027E",
  "descriptions": {"ja": "電気自動車充放電器", "en": "Electric vehicle charger/discharger"},
  "properties": {
    "dischargeableCapacity1": {
      "epc": "0xC0",
      "descriptions": {
        "ja": "車載電池の放電可能容量値1",
        "en": "Dischargeable capacity of vehicle mounted battery 1"
      },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
      }
    },
    "dischargeableCapacity2": {
      "epc": "0xC1",
      "descriptions": {
        "ja": "車載電池の放電可能容量値2",

```

```
        "en": "Dischargeable capacity of vehicle mounted battery 2"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Ah",
        "minimum": 0,
        "maximum": 3276.6,
        "multipleOf": 0.1
    }
},
"remainingDischargeableCapacity1": {
    "epc": "0xC2",
    "descriptions": {
        "ja": "車載電池の放電可能残容量1",
        "en": "Remaining dischargeable capacity of vehicle mounted battery 1"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
    }
},
"remainingDischargeableCapacity2": {
    "epc": "0xC3",
    "descriptions": {
        "ja": "車載電池の放電可能残容量2",
        "en": "Remaining dischargeable capacity of vehicle mounted battery 2"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Ah",
        "minimum": 0,
        "maximum": 3276.6,
        "multipleOf": 0.1
    }
},
"remainingDischargeableCapacity3": {
    "epc": "0xC4",
    "descriptions": {
        "ja": "車載電池の放電可能残容量3",
        "en": "Remaining dischargeable capacity of vehicle mounted battery 3"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "%",
        "minimum": 0,
        "maximum": 100
    }
}
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    }
  },
  "ratedChargeElectricPower":{
    "epc":"0xC5",
    "descriptions":{"ja":"定格充電能力", "en":"Rated charge capacity" },
    "writable":false,
    "observable":false,
    "schema":{
      "type":"number",
      "unit":"W",
      "minimum":0,
      "maximum":999999999
    }
  },
  "ratedDischargeElectricPower":{
    "epc":"0xC6",
    "descriptions":{"ja":"定格放電能力", "en":"Rated discharge capacity" },
    "writable":false,
    "observable":false,
    "schema":{
      "type":"number",
      "unit":"W",
      "minimum":0,
      "maximum":999999999
    }
  },
  "chargeDischargeStatus":{
    "epc":"0xC7",
    "epcAtomic":"0xCD",
    "descriptions":{"
      "ja":"車両接続・充放電可否状態",
      "en":"Vehicle connection and chargeable/dischargeable status"
    },
    "writable":false,
    "observable":true,
    "schema":{
      "type":"string",
      "enum":["undefined", "notConnected", "connected", "chargeable",
"dischargeable", "chargeableDischargeable", "unknown"],
      "values":[
        {"value":"undefined", "descriptions":{"ja":"不定", "en":"Undefined"}},
        {"value":"notConnected", "descriptions":{"ja":"車両未接続", "en":"Not
Connected"}, "edt":"0x30"},
        {"value":"connected", "descriptions":{"ja":"車両接続・充電不可・放電不
可", "en":"Connected"}, "edt":"0x40"},
        {"value":"chargeable", "descriptions":{"ja":"車両接続・充電可・放電不可",
"en":"Chargeable Dischargeable"}, "edt":"0x41"},
        {"value":"dischargeable", "descriptions":{"ja":"車両接続・充電不可・放電
可", "en":"Dischargeable"}, "edt":"0x42"},
        {"value":"chargeableDischargeable", "descriptions":{"ja":"車両接続・充
電可・放電可", "en":"Chargeable"}, "edt":"0x43"},
        {"value":"unknown", "descriptions":{"ja":"車両接続・充電可否不明",
"en":"Unknown of Chargeability"}, "edt":"0x44"}
      ]
    }
  }
}

```



```
    },
    "minimumAndMaximumChargingElectricPower":{
      "epc":"0xC8",
      "descriptions":{
        "ja":"最小最大充電電力値",
        "en":"Minimum/maximum charging electric energy"
      },
      "writable":false,
      "observable":false,
      "schema":{
        "type":"object",
        "properties":{
          "minimumElectricPower":{
            "type":"number",
            "unit":"W",
            "minimum":0,
            "maximum":999999999
          },
          "maximumElectricPower":{
            "type":"number",
            "unit":"W",
            "minimum":0,
            "maximum":999999999
          }
        }
      }
    },
    "minimumAndMaximumDischargingElectricPower":{
      "epc":"0xC9",
      "descriptions":{
        "ja":"最小最大放電電力値",
        "en":"Minimum/maximum discharging electric energy"
      },
      "writable":false,
      "observable":false,
      "schema":{
        "type":"object",
        "properties":{
          "minimumElectricPower":{
            "type":"number",
            "unit":"W",
            "minimum":0,
            "maximum":999999999
          },
          "maximumElectricPower":{
            "type":"number",
            "unit":"W",
            "minimum":0,
            "maximum":999999999
          }
        }
      }
    },
    "minimumAndMaximumChargingCurrent":{
      "epc":"0xCA",
      "descriptions":{
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```
        "ja": "最小最大充電電流値",
        "en": "Minimum/maximum charging electric current"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "object",
        "properties": {
            "minimumCurrent": {
                "type": "number",
                "unit": "A",
                "minimum": 0,
                "maximum": 3276.6,
                "multipleOf": 0.1
            },
            "maximumCurrent": {
                "type": "number",
                "unit": "A",
                "minimum": 0,
                "maximum": 3276.6,
                "multipleOf": 0.1
            }
        }
    }
},
"minimumAndMaximumDischargingCurrent": {
    "epc": "0xCB",
    "descriptions": {
        "ja": "最小最大放電電流値",
        "en": "Minimum/maximum discharging electric current"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "object",
        "properties": {
            "minimumCurrent": {
                "type": "number",
                "unit": "A",
                "minimum": 0,
                "maximum": 3276.6,
                "multipleOf": 0.1
            },
            "maximumCurrent": {
                "type": "number",
                "unit": "A",
                "minimum": 0,
                "maximum": 3276.6,
                "multipleOf": 0.1
            }
        }
    }
},
"equipmentType": {
    "epc": "0xCC",
    "descriptions": { "ja": "充放電器タイプ", "en": "Charger/Discharger type" },

```

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        "writable":false,
        "observable":false,
        "schema":{
            "type":"string",
            "enum":["AC_CPLT", "AC_HLC_Charge", "AC_HLC_ChargeDischarge",
"DC_AA_Charge", "DC_AA_ChargeDischarge",
            "DC_AA_Discharge", "DC_BB_Charge", "DC_BB_ChargeDischarge",
"DC_BB_Discharge", "DC_EE_Charge",
            "DC_EE_ChargeDischarge", "DC_EE_Discharge", "DC_FF_Charge",
"DC_FF_ChargeDischarge", "DC_FF_Discharge"],
            "values":[
                {"value":"AC_CPLT", "descriptions":{"ja":"AC_CPLT", "en":"AC_CPLT"},
"edt":"0x11"},
                {"value":"AC_HLC_Charge", "descriptions":{"ja":"AC_HLC (充電のみ)",
"en":"AC_HLC_Charge"}, "edt":"0x12"},
                {"value":"AC_HLC_ChargeDischarge", "descriptions":{"ja":"AC_HLC (充放電
可)", "en":"AC_HLC_ChargeDischarge"}, "edt":"0x13"},
                {"value":"DC_AA_Charge", "descriptions":{"ja":"DCタイプ_AA (充電のみ)",
"en":"DC_AA_Charge"}, "edt":"0x21"},
                {"value":"DC_AA_ChargeDischarge", "descriptions":{"ja":"DCタイプ_AA (充
放電可)", "en":"DC_AA_ChargeDischarge"}, "edt":"0x22"},
                {"value":"DC_AA_Discharge", "descriptions":{"ja":"DCタイプ_AA (放電の
み)", "en":"DC_AA_Discharge"}, "edt":"0x23"},
                {"value":"DC_BB_Charge", "descriptions":{"ja":"DCタイプ_BB (充電のみ)",
"en":"DC_BB_Charge"}, "edt":"0x31"},
                {"value":"DC_BB_ChargeDischarge", "descriptions":{"ja":"DCタイプ_BB (充
放電可)", "en":"DC_BB_ChargeDischarge"}, "edt":"0x32"},
                {"value":"DC_BB_Discharge", "descriptions":{"ja":"DCタイプ_BB (放電の
み)", "en":"DC_BB_Discharge"}, "edt":"0x33"},
                {"value":"DC_EE_Charge", "descriptions":{"ja":"DCタイプ_EE (充電のみ)",
"en":"DC_EE_Charge"}, "edt":"0x41"},
                {"value":"DC_EE_ChargeDischarge", "descriptions":{"ja":"DCタイプ_EE (充
放電可)", "en":"DC_EE_ChargeDischarge"}, "edt":"0x42"},
                {"value":"DC_EE_Discharge", "descriptions":{"ja":"DCタイプ_EE (放電の
み)", "en":"DC_EE_Discharge"}, "edt":"0x43"},
                {"value":"DC_FF_Charge", "descriptions":{"ja":"DCタイプ_FF (充電のみ)",
"en":"DC_FF_Charge"}, "edt":"0x51"},
                {"value":"DC_FF_ChargeDischarge", "descriptions":{"ja":"DCタイプ_FF (充
放電可)", "en":"DC_FF_ChargeDischarge"}, "edt":"0x52"},
                {"value":"DC_FF_Discharge", "descriptions":{"ja":"DCタイプ_FF (放電の
み)", "en":"DC_FF_Discharge"}, "edt":"0x53"}
            ]
        }
    },
    "chargeableCapacity":{
        "epc":"0xCE",
        "descriptions":{"ja":"車載電池の充電可能容量値", "en":"Chargeable capacity of
vehicle mounted battery" },
        "writable":false,
        "observable":false,
        "schema":{
            "type":"number",
            "unit":"Wh",
            "minimum":0,
            "maximum":999999999
        }
    }
}

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    },
    "remainingChargeableCapacity":{
      "epc":"0xCF",
      "descriptions":{ "ja":"車載電池の充電可能残容量値", "en":"Remaining Chargeable
capacity of vehicle mounted battery" },
      "writable":false,
      "observable":false,
      "schema":{
        "type":"number",
        "unit":"Wh",
        "minimum":0,
        "maximum":999999999
      }
    },
    "usedCapacity1":{
      "epc":"0xD0",
      "descriptions":{
        "ja":"車載電池の使用容量値1",
        "en":"Used capacity of vehicle mounted battery 1"
      },
      "writable":false,
      "observable":false,
      "schema":{
        "type":"number",
        "unit":"Wh",
        "minimum":0,
        "maximum":999999999
      }
    },
    "usedCapacity2":{
      "epc":"0xD1",
      "descriptions":{
        "ja":"車載電池の使用容量値2",
        "en":"Used capacity of vehicle mounted battery 2"
      },
      "writable":false,
      "observable":false,
      "schema":{
        "type":"number",
        "unit":"Ah",
        "minimum":0,
        "maximum":3276.6,
        "multipleOf":0.1
      }
    },
    "ratedVoltage":{
      "epc":"0xD2",
      "descriptions":{
        "ja":"定格電圧",
        "en":"Rated voltage"
      },
      "writable":false,
      "observable":false,
      "schema":{
        "type":"number",
        "unit":"V",

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        "minimum":0,
        "maximum":32766
    }
},
"instantaneousElectricPower":{
    "epc":"0xD3",
    "descriptions":{
        "ja":"瞬時充放電電力計測値",
        "en":"Measured instantaneous charging/discharging electric energy"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"W",
        "minimum":-999999999,
        "maximum":999999999
    }
},
"instantaneousCurrent":{
    "epc":"0xD4",
    "descriptions":{
        "ja":"瞬時充放電電流計測値",
        "en":"Measured instantaneous charging/discharging electric current"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"A",
        "minimum":-3276.7,
        "maximum":3276.6,
        "multipleOf":0.1
    }
},
"instantaneousVoltage":{
    "epc":"0xD5",
    "descriptions":{
        "ja":"瞬時充放電電圧計測値",
        "en":"Measured instantaneous charging/discharging electric voltage"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"V",
        "minimum":-32767,
        "maximum":32766
    }
},
"cumulativeDischargingElectricEnergy":{
    "epc":"0xD6",
    "descriptions":{
        "ja":"積算放電電力量計測値",
        "en":"Measured cumulative amount of discharging electric energy"
    },
},
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        "writable":false,
        "observable":false,
        "schema":{
            "type":"number",
            "unit":"kWh",
            "minimum":0,
            "maximum":999999.999,
            "multipleOf":0.001
        }
    },
    "resetCumulativeDischargingElectricEnergy":{
        "epc":"0xD7",
        "descriptions":{ "ja":"積算放電電力量リセット設定", "en":"Cumulative amount of
discharging electric energy reset setting" },
        "writable":true,
        "observable":false,
        "schema":{}
    },
    "cumulativeChargingElectricEnergy":{
        "epc":"0xD8",
        "descriptions":{
            "ja":"積算充電電力量計測値",
            "en":"Measured cumulative amount of charging electric energy"
        },
        "writable":false,
        "observable":false,
        "schema":{
            "type":"number",
            "unit":"kWh",
            "minimum":0,
            "maximum":999999.999,
            "multipleOf":0.001
        }
    },
    "resetCumulativeChargingElectricEnergy":{
        "epc":"0xD9",
        "descriptions":{ "ja":"積算充電電力量リセット設定", "en":"Cumulative amount of
charging electric energy reset setting" },
        "writable":true,
        "observable":false,
        "schema":{}
    },
    "operationMode":{
        "epc":"0xDA",
        "descriptions":{ "ja":"運転モード設定", "en":"Operation mode setting" },
        "writable":true,
        "observable":false,
        "schema":{
            "type":"string",
            "enum":["charge", "discharge", "standby", "idle", "other"],
            "values":[
                {"value":"charge", "descriptions":{"ja":"充電", "en":"Charge"}},
                {"value":"discharge", "descriptions":{"ja":"放電", "en":"Discharge"}},
                {"value":"standby", "descriptions":{"ja":"待機", "en":"Standby"}},
            ]
        }
    },
    "edt":"0x42"},
    "edt":"0x43"},

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"edt":"0x44"},
    {"value":"idle", "descriptions":{"ja":"停止", "en":"Idle"}},
"edt":"0x47"},
    {"value":"other", "descriptions":{"ja":"その他", "en":"Other"}},
"edt":"0x40"}
    ]
  }
},
"powerSystemInterconnectionStatus":{
  "epc":"0xDB",
  "descriptions":{"ja":"系統連系状態", "en":"System interconnected type" },
  "writable":false,
  "observable":false,
  "schema":{
    "type":"string",
    "enum":["reversePowerFlowAcceptable", "independent",
"reversePowerFlowNotAcceptable"],
    "values":[
      {
        "value":"reversePowerFlowAcceptable",
        "descriptions":{"
          "ja":"系統連系（逆潮流可）",
          "en":"System Interconnected Type(revese power flow
acceptable)"
        }},
        "edt":"0x00"
      },
      {
        "value":"independent",
        "descriptions":{"
          "ja":"独立",
          "en":"Independent Type"
        }},
        "edt":"0x01"
      },
      {
        "value":"reversePowerFlowNotAcceptable",
        "descriptions":{"
          "ja":"系統連系（逆潮流不可）",
          "en":"System Interconnected Type(revese power flow not
acceptable)"
        }},
        "edt":"0x02"
      }
    ]
  }
},
"remainingCapacity1":{
  "epc":"0xE2",
  "descriptions":{"
    "ja":"車載電池の電池残容量1",
    "en":"Remaining stored electricity of vehicle mounted battery1"
  }},
  "writable":false,
  "observable":false,
  "schema":{
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        "type": "number",
        "unit": "Wh",
        "minimum": 0,
        "maximum": 999999999
    }
},
"remainingCapacity2": {
    "epc": "0xE3",
    "descriptions": {
        "ja": "車載電池の電池残容量2",
        "en": "Remaining stored electricity of vehicle mounted battery2"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Ah",
        "minimum": 0,
        "maximum": 3276.6,
        "multipleOf": 0.1
    }
},
"remainingCapacity3": {
    "epc": "0xE4",
    "descriptions": {
        "ja": "車載電池の電池残容量3",
        "en": "Remaining stored electricity of vehicle mounted battery3"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "%",
        "minimum": 0,
        "maximum": 100
    }
},
"vehicleId": {
    "epc": "0xE6",
    "descriptions": {
        "ja": "車両ID",
        "en": "Identification of electric vehicle"
    },
    "writable": false,
    "observable": false,
    "schema": { "type": "string" }
},
"targetChargingElectricEnergy1": {
    "epc": "0xE7",
    "descriptions": {"ja": "充電量設定値1", "en": "Charging amount setting 1"},
    "writable": true,
    "observable": false,
    "schema": {
        "type": "number",
        "unit": "Wh",
        "minimum": 0,

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        "maximum":999999999
      }
    },
    "targetChargingElectricEnergy2":{
      "epc":"0xE9",
      "descriptions":{"ja":"充電量設定値2", "en":"Charging amount setting 2"},
      "writable":true,
      "observable":false,
      "schema":{
        "type":"number",
        "unit":"Ah",
        "minimum":0,
        "maximum":3276.6,
        "multipleOf":0.1
      }
    },
    "targetDischargingElectricEnergy":{
      "epc":"0xEA",
      "descriptions":{"ja":"放電量設定値", "en":"Discharging amount setting"},
      "writable":true,
      "observable":false,
      "schema":{
        "type":"number",
        "unit":"Wh",
        "minimum":0,
        "maximum":999999999
      }
    },
    "chargingElectricPower":{
      "epc":"0xEB",
      "descriptions":{"ja":"充電電力設定値", "en":"Charging electric energy
setting"},
      "writable":true,
      "observable":false,
      "schema":{
        "type":"number",
        "unit":"W",
        "minimum":0,
        "maximum":999999999
      }
    },
    "dischargingElectricPower":{
      "epc":"0xEC",
      "descriptions":{"ja":"放電電力設定値", "en":"Discharging electric energy
setting"},
      "writable":true,
      "observable":false,
      "schema":{
        "type":"number",
        "unit":"W",
        "minimum":0,
        "maximum":999999999
      }
    },
    "chargingCurrent":{
      "epc":"0xED",
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    "descriptions":{"ja":"充電電流設定値", "en":"Charging current setting"},
    "writable":true,
    "observable":false,
    "schema":{"
      "type":"number",
      "unit":"A",
      "minimum":0,
      "maximum":6553.3,
      "multipleOf":0.1
    }
  },
  "dischargingCurrent":{"
    "epc":"0xEE",
    "descriptions":{"ja":"放電電流設定値", "en":"Discharging current setting"},
    "writable":true,
    "observable":false,
    "schema":{"
      "type":"number",
      "unit":"A",
      "minimum":0,
      "maximum":6553.3,
      "multipleOf":0.1
    }
  },
  "ratedVoltageOfIndependentOperation":{"
    "epc":"0xEF",
    "descriptions":{"ja":"定格電圧 (独立時)", "en":"Rated voltage(Independent)"},
    "writable":false,
    "observable":false,
    "schema":{"
      "type":"number",
      "unit":"V",
      "minimum":0,
      "maximum":32766
    }
  }
}
}
```

低圧スマート電力量メータ:lvSmartElectricEnergyMeter:0x0288

以下のECHONET LiteのPropertyは、ECHONET LiteでGETした値に係数（EPC=0xD3）と積算電力量単位（EPC=0xE1）を乗算することで実際の値となる。サーバ側でこれらの計算を行うこととする。したがってECHONET Lite Web APIでは取得した値をそのまま利用できる。

- 積算電力量計測値（正方向計測値）
- 積算電力量計測値履歴1（正方向計測値）
- 積算電力量計測値（逆方向計測値）
- 積算電力量計測値履歴1（逆方向計測値）
- 定時積算電力量計測値（正方向計測値）
- 定時積算電力量計測値（逆方向計測値）
- 積算電力量計測値履歴2

以下のECHONET LiteのPropertyは、ECHONET LiteでデータをGETする前に「積算履歴収集日1 (EPC=0xE5)」をSETする必要がある。ECHONET Lite Web APIでは以下のPropertyをGET(REST)する際に「積算履歴収集日1」の値をQueryとして指定する。サーバはECHONET Liteで「積算履歴収集日1」をSETしたのち「積算電力量計測値履歴1」をGETする。なお、ECHONET Lite Web APIでqueryを付加しない場合は「積算履歴収集日1」=0として扱う。

- 積算電力量計測値履歴1 (正方向計測値)
- 積算電力量計測値履歴1 (逆方向計測値)

以下のECHONET LiteのPropertyは、ECHONET LiteでデータをGETする前に「積算履歴収集日2 (EPC=0xED)」をSETする必要がある。ECHONET Lite Web APIでは以下のPropertyをGET(REST)する際に「積算履歴収集日2」の値をQueryとして指定する。サーバはECHONET Liteで「積算履歴収集日2」をSETしたのち「積算電力量計測値履歴2」をGETする。

- 積算電力量計測値履歴2 (正方向、逆方向計測値)

Properties

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称 (EL)	Note
normalDirectionCumulativeElectricEnergy	GET	number	0xE0	積算電力量計測値 (正方向計測値) Measured cumulative amount of electric energy (normal direction)	*1
normalDirectionCumulativeElectricEnergyLog1	GET	object	0xE2	積算電力量計測値履歴1 (正方向計測値) Historical data of measured cumulative amounts of electric energy 1(normal direction)	*1, *2
reverseDirectionCumulativeElectricEnergy	GET	number	0xE3	積算電力量計測値 (逆方向計測値) Measured cumulative amounts of electric energy (reverse direction)	*1

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称 (EL)	Note
reverseDirectionCumulativeElectricEnergyLog1	GET	object	0xE4	積算電力量計測値履歴1 (逆方向計測値) Historical data of measured cumulative amounts of electric energy 1(reverse direction)	*1,*2
instantaneousElectricPower	GET	number	0xE7	瞬時電力計測値 Measured instantaneous electric energy	*1
instantaneousCurrent	GET	object	0xE8	瞬時電流計測値 Measured instantaneous currents	*1
normalDirectionCumulativeElectricEnergyAtEvery30Min	GET	object	0xEA	定時積算電力量計測値 (正方向計測値) Cumulative amounts of electric energy measured at fixed time (normal direction)	*1
reverseDirectionCumulativeElectricEnergyAtEvery30Min	GET	object	0xEB	定時積算電力量計測値 (逆方向計測値) Cumulative amounts of electric energy measured at fixed time (reverse direction)	*1

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称 (EL)	Note
cumulativeElectricEnergyLog2	GET	object	0xEC	積算電力量計測値履歴2 (正方向、逆方向計測値) Historical data of measured cumulative amounts of electric energy 2(normal and reverse direction)	*1,*2

*1 AIF対応プロパティ *2 queryあり

Device Description

```
{
  "deviceType": "lvSmartElectricEnergyMeter",
  "eoj": "0x0288",
  "descriptions": {"ja": "低圧スマート電力量メータ", "en": "Low Voltage Smart Electric Energy Meter"},
  "properties": {
    "normalDirectionCumulativeElectricEnergy": {
      "epc": "0xE0",
      "descriptions": {
        "ja": "積算電力量計測値 (正方向計測値)",
        "en": "Measured cumulative amount of electric energy (normal direction)"
      },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "unit": "kWh",
        "minimum": 0
      },
      "note": {
        "ja": "EPC=0xD3, 0xE1の値を乗算済みの値",
        "en": "The value is multiplied by the value of EPC=0xD3 and 0xE1"
      }
    },
    "normalDirectionCumulativeElectricEnergyLog1": {
      "epc": "0xE2",
      "epcAtomic": "0xE5",
      "descriptions": {
        "ja": "積算電力量計測値履歴1 (正方向計測値)",
        "en": "Historical data of measured cumulative amounts of electric energy 1(normal direction)"
      },
      "writable": false,

```

```

    "observable":false,
    "querySchema":{
      "type":"number",
      "minimum":0,
      "maximum":99
    },
    "schema":{
      "type":"object",
      "properties":{
        "day":{
          "type":"number",
          "minimum":0,
          "maximum":99
        },
        "electricEnergy":{
          "type":"array",
          "minItems":48,
          "maxItems":48,
          "items":{
            "type":"number",
            "unit":"kWh",
            "minimum":0
          }
        }
      }
    },
    "note":{
      "ja":"Queryは履歴収集日。電力量はEPC=0xD3, 0xE1の値を乗算済みの値",
      "en":"Query is Day for collection. Electric power is multiplied by EPC=0xD3
and 0xE1."
    }
  },
  "reverseDirectionCumulativeElectricEnergy":{
    "epc":"0xE3",
    "descriptions":{
      "ja":"積算電力量計測値（逆方向計測値）",
      "en":"Measured cumulative amount of electric energy (reverse direction)"
    },
    "writable":false,
    "observable":false,
    "schema":{
      "type":"number",
      "unit":"kWh",
      "minimum":0
    },
    "note":{
      "ja":"EPC=0xD3, 0xE1の値を乗算済みの値",
      "en":"The value is multiplied by the value of EPC=0xD3 and 0xE1"
    }
  },
  "reverseDirectionCumulativeElectricEnergyLog1":{
    "epc":"0xE4",
    "epcAtomic":"0xE5",
    "descriptions":{
      "ja":"積算電力量計測値履歴1（逆方向計測値）",
      "en":"Historical data of measured cumulative amounts of electric energy

```

```

1(reverse direction)"
    },
    "writable":false,
    "observable":false,
    "querySchema":{
      "type":"number",
      "minimum":0,
      "maximum":99
    },
    "schema":{
      "type":"object",
      "properties":{
        "day":{
          "type":"number",
          "minimum":0,
          "maximum":99
        },
        "electricEnergy":{
          "type":"array",
          "minItems":48,
          "maxItems":48,
          "items":{
            "type":"number",
            "unit":"kWh",
            "minimum":0,
            "maximum":99999999
          }
        }
      }
    },
    "note":{
      "ja":"Queryは履歴収集日。電力量はEPC=0xD3, 0xE1の値を乗算済みの値",
      "en":"Query is Day for collection. Electric power is multiplied by EPC=0xD3
and 0xE1."
    }
  },
  "instantaneousElectricPower":{
    "epc":"0xE7",
    "descriptions":{
      "ja":"瞬時電力計測値",
      "en":"Measured instantaneous electric energy"
    },
    "writable":false,
    "observable":false,
    "schema":{
      "type":"number",
      "unit":"W",
      "minimum":-2147483647,
      "maximum":2147483645
    }
  },
  "instantaneousCurrent":{
    "epc":"0xE8",
    "descriptions":{ "ja":"瞬時電流計測値", "en":"Measured instantaneous currents"
  },
  "writable":false,

```

```

    "observable":false,
    "schema":{
      "type":"object",
      "properties":{
        "rPhase":{
          "type":"number",
          "unit":"A",
          "minimum":-3276.7,
          "maximum":3276.5,
          "multipleOf":0.1
        },
        "tPhase":{
          "type":"number",
          "unit":"A",
          "minimum":-3276.7,
          "maximum":3276.5,
          "multipleOf":0.1
        }
      }
    }
  },
  "normalDirectionCumulativeElectricEnergyAtEvery30Min":{
    "epc":"0xEA",
    "descriptions":{
      "ja":"定時積算電力量計測値（正方向計測値）",
      "en":"Cumulative amounts of electric energy measured at fixed time (normal
direction)"
    },
    "writable":false,
    "observable":false,
    "schema":{
      "type":"object",
      "properties":{
        "dateAndTime":{
          "type":"string",
          "format":"date-time"
        },
        "electricEnergy":{
          "type":"number",
          "unit":"kWh",
          "minimum":0,
          "maximum":99999999
        }
      }
    }
  },
  "note":{
    "ja":"EPC=0xD3, 0xE1の値を乗算済みの値",
    "en":"The value is multiplied by the value of EPC=0xD3 and 0xE1"
  }
},
  "reverseDirectionCumulativeElectricEnergyEvery30Min":{
    "epc":"0xEB",
    "descriptions":{
      "ja":"定時積算電力量計測値（逆方向計測値）",
      "en":"Cumulative amounts of electric energy measured at fixed time
(reverse direction)"
    }
  }
}

```



```
    },
    "writable":false,
    "observable":false,
    "schema":{
      "type":"object",
      "properties":{
        "dateAndTime":{
          "type":"string",
          "format":"date-time"
        },
        "electricEnergy":{
          "type":"number",
          "unit":"kWh",
          "minimum":0,
          "maximum":99999999
        }
      }
    },
    "note":{
      "ja":"EPC=0xD3, 0xE1の値を乗算済みの値",
      "en":"The value is multiplied by the value of EPC=0xD3 and 0xE1"
    }
  },
  "cumulativeElectricEnergyLog2":{
    "epc":"0xEC",
    "epcAtomic":"0xED",
    "descriptions":{
      "ja":"積算電力量計測値履歴2 (正方向、逆方向計測値) ",
      "en":"Historical data of measured cumulative amounts of electric energy  
2(normal and reverse directions)"
    },
    "writable":false,
    "observable":false,
    "querySchema":{
      "type":"object",
      "properties":{
        "dayAndTime":{
          "type":"string",
          "format":"day-time"
        },
        "numberOfCollectionSegments":{
          "type":"number",
          "minimum":1,
          "maximum":12,
          "multipleOf":1
        }
      }
    },
    "schema":{
      "type":"object",
      "properties":{
        "dayAndTime":{
          "type":"string",
          "format":"day-time"
        },
        "numberOfCollectionSegments":{
```

```
        "type": "number",
        "minimum": 1,
        "maximum": 12
    },
    "electricEnergy": {
        "type": "array",
        "minItems": 1,
        "maxItems": 12,
        "items": {
            "type": "object",
            "properties": {
                "normalDirectionElectricEnergy": {
                    "type": "number",
                    "unit": "kWh",
                    "minimum": 0,
                    "maximum": 99999999
                },
                "reverseDirectionElectricEnergy": {
                    "type": "number",
                    "unit": "kWh",
                    "minimum": 0,
                    "maximum": 99999999
                }
            }
        }
    }
},
"note": {
    "ja": "Queryは日時と収集コマ数。秒の値は0、分の値は0または30。電力量はEPC=0xD3,
    0xE1の値を乗算済みの値",
    "en": "Query is data&time and Number of collection segments. Value of
    seconds is 0 and value of minutes is 0 or 30. Electric energy is multiplied by EPC=0xD3 and
    0xE1"
}
```

高圧スマート電力量メータ: hvSmartElectricEnergyMeter:0x028A

以下のECHONET LiteのPropertyは、ECHONET LiteでGETした値に係数（EPC=0xD3）と係数の倍率（EPC=0xD4）と積算有効電力量単位（EPC=0xE6）を乗算することで実際の値となる。サーバ側でこれらの計算を行うこととする。したがってECHONET Lite Web APIでは取得した値をそのまま利用できる。

- 積算有効電力量計測値
- 定時積算有効電力量計測値
- 力測積算有効電力量計測値
- 積算有効電力量計測値履歴

以下のECHONET LiteのPropertyは、ECHONET LiteでGETした値に係数（EPC=0xD3）と係数の倍率（EPC=0xD4）と需要電力単位（EPC=0xC5）を乗算することで実際の値となる。サーバ側でこれらの計算を行うこととする。したがってECHONET Lite Web APIでは取得した値をそのまま利用できる。

- 月間最大需要電力
- 定時需要電力（30分平均電力）
- 需要電力計測値履歴

以下のECHONET LiteのPropertyは、ECHONET LiteでデータをGETする前に「積算履歴収集日（EPC=0xE1）」をSETする必要がある。ECHONET Lite Web APIでは以下のPropertyをGET(REST)する際に「積算履歴収集日」の値をqueryとして指定する。サーバはECHONET Liteで「積算履歴収集日」をSETしたのち「需要電力計測値履歴」または「積算有効電力量計測値履歴」をGETする。なお、ECHONET Lite Web APIでqueryを付加しない場合は「積算履歴収集日」=0として扱う。

- 需要電力計測値履歴
- 力測積算無効電力量(遅れ)計測値履歴
- 積算有効電力量計測値履歴

Properties

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
monthlyMaximumElectricPowerDemand	GET	number	0xC1	月間最大需要電力 Monthly maximum electric power demand	*1
cumulativeMaximumElectricPowerDemand	GET	number	0xC2	累積最大需要電力 Cumulative maximum electric power demand	*1
averageElectricPowerDemand	GET	object	0xC3	定時需要電力（30分平均電力） Electric power demand at fixed time(30-minute average electric power)	*1
electricPowerDemandLog	GET	object	0xC6	需要電力計測値履歴 Historical data of measured electric power demand	*1, *2
cumulativeReactiveElectricEnergy	GET	object	0xCA	力測積算無効電力量(遅れ)計測値 Measurement data of reactive electric power consumption (lag) for power factor measurement	*1

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
cumulativeReactiveElectricEnergyAtEvery30Min	GET	object	0xCB	定時力測積算無効電力量(遅れ)計測値 Measurement data of cumulative amount of reactive electric power consumption (lag) at fixed time for power factor measurement	*1
cumulativeReactiveElectricEnergyLog	GET	object	0xCE	力測積算無効電力量(遅れ)計測値履歴 Historical data of measurement data of cumulative amount of reactive electric power consumption (lag) for power factor measurement	*1, *2
fixedDate	GET	number	0xE0	確定日 Fixed date	*1
cumulativeActiveElectricEnergy	GET	object	0xE2	積算有効電力量計測値 Measured cumulative amounts of active electric energy	*1
cumulativeActiveElectricEnergyAtEvery30Min	GET	object	0xE3	定時積算有効電力量計測値 Cumulative amounts of active electric energy at fixed time	*1
cumulativeActiveElectricEnergyForPowerFactor	GET	object	0xE4	力測積算有効電力量計測値 Measurement data of cumulative amounts of active electric energy for power factor measurement	*1
activeElectricEnergyLog	GET	object	0xE7	積算有効電力量計測値履歴 Historical data of measured cumulative amount of active electric energy	*1, *2

*1 AIF対応プロパティ *2 queryあり

Device Description

```
{
  "deviceType": "hvSmartElectricEnergyMeter",
  "eoj": "0x028A",
  "descriptions": { "ja": "高圧スマート電力量メータ", "en": "High Voltage Smart Electric Energy Meter" },
  "properties": {
    "monthlyMaximumElectricPowerDemand": {
      "epc": "0xC1",
      "descriptions": { "ja": "月間最大需要電力", "en": "Monthly maximum electric power demand" },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "unit": "kW",
        "minimum": 0
      },
      "note": {
        "ja": "EPC=0xC5, 0xD3, 0xD4 の値を乗算済みの値",
        "en": "The value is multiplied by the value of EPC=0xC5, 0xD3 and 0xD4"
      }
    },
    "cumulativeMaximumElectricPowerDemand": {
      "epc": "0xC2",
      "descriptions": { "ja": "累積最大需要電力", "en": "Cumulative maximum electric power demand" },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "unit": "kW",
        "minimum": 0
      },
      "note": {
        "ja": "EPC=0xC7, 0xD3, 0xD4 の値を乗算済みの値",
        "en": "The value is multiplied by the value of EPC=0xC7, 0xD3 and 0xD4"
      }
    },
    "averageElectricPowerDemand": {
      "epc": "0xC3",
      "descriptions": {
        "ja": "定時需要電力 (30分平均電力) ",
        "en": "Electric power demand at fixed time(30-minute average electric power)"
      },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "object",
        "properties": {
          "dateAndTime": {
            "type": "string",
            "format": "date-time"
          }
        }
      }
    }
  }
}
```

```
    },
    "electricPower":{
      "type":"number",
      "unit":"kW",
      "minimum":0
    }
  },
  "note":{
    "ja":"EPC=0xC5, 0xD3, 0xD4 の値を乗算済みの値",
    "en":"The value is multiplied by the value of EPC=0xC5, 0xD3 and 0xD4"
  }
},
"electricPowerDemandLog":{
  "epc":"0xC6",
  "epcAtomic":"0xE1",
  "descriptions":{
    "ja":"需要電力計測値履歴",
    "en":"Historical data of measured electric power demand"
  },
  "writable":false,
  "observable":false,
  "querySchema":{
    "type":"number",
    "minimum":0,
    "maximum":99
  },
  "schema":{
    "type":"object",
    "properties":{
      "day":{
        "type":"number",
        "unit":"day",
        "minimum":0,
        "maximum":99
      },
      "electricPower":{
        "type":"array",
        "minItems":48,
        "maxItems":48,
        "items":{
          "type":"number",
          "unit":"kW",
          "minimum":0
        }
      }
    }
  }
},
"note":{
  "ja":"Queryは履歴収集日。電力量はEPC=0xC5, 0xD3, 0xD4 の値を乗算済みの値",
  "en":"Query is Day for collection. Electric power is multiplied by
EPC=0xC5, 0xD3 and 0xD4"
}
},
"cumulativeReactiveElectricEnergy":{
  "epc":"0xCA",
```

```

    "descriptions":{
      "ja":"力測積算無効電力量(遅れ)計測値",
      "en":"Measurement data of reactive electric power consumption (lag) for
power factor measurement"
    },
    "writable":false,
    "observable":false,
    "schema":{
      "type":"object",
      "properties":{
        "dateAndTime":{
          "type":"string",
          "format":"date-time"
        },
        "reactiveElectricEnergy":{
          "type":"number",
          "unit":"kvarh",
          "minimum":0
        }
      }
    },
    "note":{
      "ja":"EPC=0xCD, 0xD3, 0xD4 の値を乗算済みの値",
      "en":"The value is multiplied by the value of EPC=0xCD, 0xD3 and 0xD4"
    }
  },
  "cumulativeReactiveElectricEnergyAtEvery30Min":{
    "epc":"0xCB",
    "descriptions":{
      "ja":"定時力測積算無効電力量(遅れ)計測値",
      "en":"Measurement data of cumulative amount of reactive electric power
consumption (lag) at fixed time for power factor measurement"
    },
    "writable":false,
    "observable":false,
    "schema":{
      "type":"object",
      "properties":{
        "dateAndTime":{
          "type":"string",
          "format":"date-time"
        },
        "reactiveElectricEnergy":{
          "type":"number",
          "unit":"kvarh",
          "minimum":0
        }
      }
    },
    "note":{
      "ja":"EPC=0xCD, 0xD3, 0xD4 の値を乗算済みの値",
      "en":"The value is multiplied by the value of EPC=0xCD, 0xD3 and 0xD4"
    }
  },
  "cumulativeReactiveElectricEnergyLog":{
    "epc":"0xCE",

```

```

    "epcAtomic": "0xE1",
    "descriptions": {
      "ja": "力測積算無効電力量(遅れ)計測値履歴",
      "en": "Historical data of measurement data of cumulative amount of reactive
electric power consumption (lag) for power factor measurement"
    },
    "writable": false,
    "observable": false,
    "querySchema": {
      "type": "number",
      "minimum": 0,
      "maximum": 99
    },
    "schema": {
      "type": "object",
      "properties": {
        "day": {
          "descriptions": { "ja": "履歴収集日", "en": "Day for collection" },
          "type": "number",
          "unit": "day",
          "minimum": 0,
          "maximum": 99
        },
        "reactiveElectricEnergy": {
          "type": "array",
          "minItems": 48,
          "maxItems": 48,
          "items": {
            "type": "number",
            "unit": "kvarh",
            "minimum": 0
          }
        }
      }
    },
    "note": {
      "ja": "Queryは履歴収集日。電力量はEPC=0xCD, 0xD3, 0xD4 の値を乗算済みの値",
      "en": "Query is Day for collection. Electric power is multiplied by
EPC=0xCD, 0xD3 and 0xD4"
    },
    "fixedDate": {
      "epc": "0xE0",
      "descriptions": { "ja": "確定日", "en": "Fixed Date" },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "minimum": 1,
        "maximum": 31
      }
    },
    "activeElectricEnergyLog": {
      "epc": "0xE7",
      "epcAtomic": "0xE1",
      "descriptions": {

```



```

        "ja": "積算有効電力量計測値履歴",
        "en": "Historical data of measured cumulative amount of active electric
energy"
    },
    "writable": false,
    "observable": false,
    "querySchema": {
        "type": "number",
        "minimum": 0,
        "maximum": 99
    },
    "schema": {
        "type": "object",
        "properties": {
            "day": {
                "descriptions": { "ja": "日", "en": "Day" },
                "type": "number",
                "unit": "day"
            },
            "activeElectricEnergy": {
                "type": "array",
                "minItems": 48,
                "maxItems": 48,
                "items": {
                    "type": "number",
                    "unit": "kWh",
                    "minimum": 0
                }
            }
        }
    },
    "note": {
        "ja": "Queryは履歴収集日。電力量はEPC=0xD3, 0xD4, 0xE6 の値を乗算済みの値",
        "en": "Query is Day for collection. Electric power is multiplied by
EPC=0xD3, 0xD4 and 0xE6"
    },
    "cumulativeActiveElectricEnergy": {
        "epc": "0xE2",
        "descriptions": {
            "ja": "積算有効電力量計測値",
            "en": "Measured cumulative amounts of active electric energy"
        },
        "writable": false,
        "observable": false,
        "schema": {
            "type": "object",
            "properties": {
                "dateAndTime": {
                    "type": "string",
                    "format": "date-time"
                },
                "activeElectricEnergy": {
                    "type": "number",
                    "unit": "kWh",
                    "minimum": 0
                }
            }
        }
    }
}

```

```

        }
    },
    "note":{
        "ja":"multipleOfはEPC=0xD3, 0xD4, 0xE6の値を乗算した値である",
        "en":"multipleOf is the result of multiplying the value of EPC=0xD3, 0xD4
and 0xE6"
    }
},
"cumulativeActiveElectricEnergyAtEvery30Min":{
    "epc":"0xE3",
    "descriptions":{
        "ja":"定時積算有効電力量計測値",
        "en":"Cumulative amounts of active electric energy at fixed time"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"object",
        "properties":{
            "dateAndTime":{
                "type":"string",
                "format":"date-time"
            },
            "activeElectricEnergy":{
                "type":"number",
                "unit":"kWh",
                "minimum":0
            }
        }
    }
},
    "note":{
        "ja":"multipleOfはEPC=0xD3, 0xD4, 0xE6の値を乗算した値である",
        "en":"multipleOf is the result of multiplying the value of EPC=0xD3, 0xD4
and 0xE6"
    }
},
"cumulativeActiveElectricEnergyForPowerFactor":{
    "epc":"0xE4",
    "descriptions":{
        "ja":"力測積算有効電力量計測値",
        "en":"Measurement data of cumulative amounts of active electric energy for
power factor measurement"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"object",
        "properties":{
            "dateAndTime":{
                "type":"string",
                "format":"date-time"
            },
            "electricEnergy":{
                "type":"number",
                "unit":"kWh",
            }
        }
    }
}

```

```

        "minimum":0
      }
    },
    "note":{
      "ja":"multipleOfはEPC=0xD3, 0xD4, 0xE6の値を乗算した値である",
      "en":"multipleOf is the result of multiplying the value of EPC=0xD3, 0xD4
and 0xE6"
    }
  }
}

```

一般照明:generalLighting:0x0290

Properties

Property	Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
brightness		GET, PUT	number	0xB0	照度レベル設定 Illuminance level	*1
operationMode		GET, PUT	string	0xB6	点灯モード設定 Lighting mode setting	*1
rgb		GET, PUT	object	0xC0	カラー灯モード時RGB設定 RGB setting for color lighting	

*1 AIF対応プロパティ

Device Description

```

{
  "deviceType":"generalLighting",
  "eoj":"0x0290",
  "descriptions":{"ja":"一般照明", "en":"General Lighting"},
  "properties":{
    "brightness":{
      "epc":"0xB0",
      "descriptions":{"ja":"照度レベル設定", "en":"Illuminance level" },
      "writable":true,
      "observable":false,
      "schema":{
        "type":"number",
        "unit":"%",
        "minimum":0,
        "maximum":100
      }
    },
    "operationMode":{
      "epc":"0xB6",
      "descriptions":{"ja":"点灯モード設定", "en":"Lighting mode setting" },
      "writable":true,
      "observable":true,

```

```
    "schema":{
      "type":"string",
      "enum":["auto", "normal", "night", "color"],
      "values":[
        {"value":"auto", "descriptions":{"ja":"自動", "en":"Auto Lighting"}},
        {"value":"normal", "descriptions":{"ja":"通常灯", "en":"Normal
Lighting"}}, {"value":"night", "descriptions":{"ja":"常夜灯", "en":"Night
Lighting"}}, {"value":"color", "descriptions":{"ja":"カラー灯", "en":"Color
Lighting"}}, {"value":"", "descriptions":{"ja":"","en":""}}
      ]
    },
    "rgb":{
      "epc":"0xC0",
      "descriptions":{"ja":"カラー灯モード時RGB設定", "en":"RGB setting for color
lighting" },
      "writable":true,
      "observable":false,
      "schema":{
        "type":"object",
        "properties":{
          "red":{
            "type":"number",
            "minimum":0,
            "maximum":255
          },
          "green":{
            "type":"number",
            "minimum":0,
            "maximum":255
          },
          "blue":{
            "type":"number",
            "minimum":0,
            "maximum":255
          }
        }
      }
    }
  }
}
```

電気自動車充電器:evCharger:0x02A1

ECHONET LiteのProperty「車両接続・充電可否状態 (EPC=0xC7)」は、ECHONET LiteでデータをGETする前に「車両接続確認 (EPC=0xCD)」をSETする必要がある。サーバがECHONET Lite Web APIでGET:chargeStatusを受信した場合、サーバはECHONET Liteで「車両接続確認」をSETしたのち「車両接続・充電可否状態」をGETする。

Properties

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
ratedChargeElectricPower	GET	number	0xC5	定格充電能力 Rated charge capacity	*1
chargeStatus	GET	string	0xC7	車両接続・充電可否状態 Vehicle connection and chargeable status	*1
minimumAndMaximumChargingElectricPower	GET	object	0xC8	最小大充電電力値 Minimum/maximum charging electric energy	*1
minimumAndMaximumChargeCurrent	GET	object	0xCA	最小最大充電電流値 Minimum/maximum charging current	*1
equipmentType	GET	string	0xCC	充電器タイプ Charger type	*1
chargeableCapacity	GET	number	0xCE	車載電池の充電可能容量値 Chargeable capacity of vehicle mounted battery	*1
remainingChargeableCapacity	GET	number	0xCF	車載電池の充電可能残容量値 Remaining Chargeable capacity of vehicle mounted battery	*1
usedCapacity1	GET	number	0xD0	車載電池の使用容量値1 Used capacity of vehicle mounted battery 1	*1
ratedVoltage	GET	number	0xD2	定格電圧 Rated voltage	*1
instantaneousElectricPower	GET	number	0xD3	瞬時充電電力計測値 Measured instantaneous charging electric energy	*1
cumulativeChargingElectricEnergy	GET	number	0xD8	積算充電電力量計測値 Measured cumulative amount of charging electric energy	*1
resetCumulativeChargingElectricEnergy	SET	number	0xD9	積算充電電力量リセット設定 Cumulative amount of charging electric energy reset setting	*1

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
operationMode	GET, PUT	string	0xDA	運転モード設定 Operation mode setting	*1
remainingCapacity1	GET	number	0xE2	車載電池の電池残容量1 Remaining stored electricity of vehicle mounted battery1	*1
remainingCapacity3	GET	number	0xE4	車載電池の電池残容量3 Remaining stored electricity of vehicle mounted battery3	*1
vehicleId	GET	string	0xE6	車両ID Identification of electric vehicle	*1
targetChargingElectricEnergy1	GET, PUT	number	0xE7	充電量設定値1 Charging amount 1	*1
chargingElectricPower	GET, PUT	number	0xEB	充電電力設定値 Charging electric energy setting	*1
chargingCurrent	GET, PUT	number	0xED	充電電流設定値 Charging current setting	*1

*1 AIF対応プロパティ

Device Description

```
{
  "deviceType": "evChargerDischarger",
  "eoj": "0x02A1",
  "descriptions": { "ja": "電気自動車充電器", "en": "EV Charger" },
  "properties": {
    "ratedChargeElectricPower": {
      "epc": "0xC5",
      "descriptions": { "ja": "定格充電能力", "en": "Rated charge capacity" },
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "unit": "W",
        "minimum": 0,
        "maximum": 999999999
      }
    },
    "chargeStatus": {
      "epc": "0xC7",
      "descriptions": {
```

```

        "ja": "車両接続・充電可否状態",
        "en": "Vehicle connection and chargeable status"
    },
    "writable": false,
    "observable": true,
    "schema": {
        "type": "string",
        "enum": ["undefined", "notConnected", "notChargeable", "chargeable",
"unknown"],
        "values": [
            { "value": "undefined", "descriptions": { "ja": "不定", "en": "Undefined" },
"edt": "0xFF" },
            { "value": "notConnected", "descriptions": { "ja": "車両未接続", "en": "Not
Connected" }, "edt": "0x30" },
            { "value": "notChargeable", "descriptions": { "ja": "車両接続・充電不可",
"en": "Not Chargeable" }, "edt": "0x40" },
            { "value": "chargeable", "descriptions": { "ja": "車両接続・充電可",
"en": "Chargeable" }, "edt": "0x41" },
            { "value": "unknown", "descriptions": { "ja": "車両接続・充電可否不明",
"en": "Unknown" }, "edt": "0x44" }
        ]
    }
},
"minimumAndMaximumChargingElectricPower": {
    "epc": "0xC8",
    "descriptions": {
        "ja": "最小最大充電電力値",
        "en": "Minimum/maximum charging electric energy"
    },
    "writable": false,
    "observable": false,
    "schema": {
        "type": "object",
        "properties": {
            "minimumElectricPower": {
                "type": "number",
                "unit": "W",
                "minimum": 0,
                "maximum": 999999999
            },
            "maximumElectricPower": {
                "type": "number",
                "unit": "W",
                "minimum": 0,
                "maximum": 999999999
            }
        }
    }
},
"minimumAndMaximumChargingCurrent": {
    "epc": "0xCA",
    "descriptions": {
        "ja": "最小最大充電電流値",
        "en": "Minimum/maximum charging electric current"
    },
    "writable": false,

```

```

    "observable":false,
    "schema":{
      "type":"object",
      "properties":{
        "minimumCurrent":{
          "type":"number",
          "unit":"A",
          "minimum":0,
          "maximum":3276.6,
          "multipleOf":0.1
        },
        "maximumCurrent":{
          "type":"number",
          "unit":"A",
          "minimum":0,
          "maximum":3276.6,
          "multipleOf":0.1
        }
      }
    }
  },
  "equipmentType":{
    "epc":"0xCC",
    "descriptions":{"ja":"充放電器タイプ", "en":"Charger/Discharger type" },
    "writable":false,
    "observable":false,
    "schema":{
      "type":"string",
      "enum":["AC_CPLT", "AC_HLC_Charge", "DC_AA_Charge", "DC_BB_Charge",
"DC_EE_Charge", "DC_FF_Charge"],
      "values":[
        {"value":"AC_CPLT", "descriptions":{"ja":"AC_CPLT", "en":"AC_CPLT"},
"edt":"0x11"},
        {"value":"AC_HLC_Charge", "descriptions":{"ja":"AC_HLC (充電のみ) ",
"en":"AC_HLC_Charge"}, "edt":"0x12"},
        {"value":"DC_AA_Charge", "descriptions":{"ja":"DCタイプ_AA (充電のみ) ",
"en":"DC_AA_Charge"}, "edt":"0x21"},
        {"value":"DC_BB_Charge", "descriptions":{"ja":"DCタイプ_BB (充電のみ) ",
"en":"DC_BB_Charge"}, "edt":"0x31"},
        {"value":"DC_EE_Charge", "descriptions":{"ja":"DCタイプ_EE (充電のみ) ",
"en":"DC_EE_Charge"}, "edt":"0x41"},
        {"value":"DC_FF_Charge", "descriptions":{"ja":"DCタイプ_FF (充電のみ) ",
"en":"DC_FF_Charge"}, "edt":"0x51"}
      ]
    }
  },
  "chargeableCapacity":{
    "epc":"0xCE",
    "descriptions":{"ja":"車載電池の充電可能容量値", "en":"Chargeable capacity of
vehicle mounted battery" },
    "writable":false,
    "observable":false,
    "schema":{
      "type":"number",
      "unit":"Wh",
      "minimum":0,

```



```

        "maximum":999999999
    }
},
"remainingChargeableCapacity":{
    "epc":"0xCF",
    "descriptions":{ "ja":"車載電池の充電可能残容量値", "en":"Remaining Chargeable
capacity of vehicle mounted battery" },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"Wh",
        "minimum":0,
        "maximum":999999999
    }
},
"usedCapacity1":{
    "epc":"0xD0",
    "descriptions":{
        "ja":"車載電池の使用容量値1",
        "en":"Used capacity of vehicle mounted battery 1"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"Wh"
    }
},
"ratedVoltage":{
    "epc":"0xD2",
    "descriptions":{
        "ja":"定格電圧",
        "en":"Rated voltage"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"V",
        "minimum":0,
        "maximum":32766
    }
},
"instantaneousElectricPower":{
    "epc":"0xD3",
    "descriptions":{
        "ja":"瞬時充電電力計測値",
        "en":"Measured instantaneous charging electric energy"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"W",
        "minimum":-999999999,

```

```

        "maximum":999999999
    },
    },
    "cumulativeChargingElectricEnergy":{
        "epc":"0xD8",
        "descriptions":{
            "ja":"積算充電電力量計測値",
            "en":"Measured cumulative amount of charging electric energy"
        },
        "writable":false,
        "observable":false,
        "schema":{
            "type":"number",
            "unit":"kWh",
            "minimum":0,
            "maximum":999999.999,
            "multipleOf":0.001
        }
    },
    },
    "resetCumulativeChargingElectricEnergy":{
        "epc":"0xD9",
        "descriptions":{ "ja":"積算充電電力量リセット設定", "en":"Cumulative amount of
charging electric energy reset setting" },
        "writable":true,
        "observable":false,
        "schema":{}
    },
    },
    "operationMode":{
        "epc":"0xDA",
        "descriptions":{ "ja":"運転モード設定", "en":"Operation mode setting" },
        "writable":true,
        "observable":true,
        "schema":{
            "type":"string",
            "enum":["charge", "standby", "idle", "other"],
            "values":[
                {"value":"charge", "descriptions":{"ja":"充電", "en":"Charge"}},
                {"value":"standby", "descriptions":{"ja":"待機", "en":"Standby"}},
                {"value":"idle", "descriptions":{"ja":"停止", "en":"Idle"}},
                {"value":"other", "descriptions":{"ja":"その他", "en":"Other"}},
            ]
        }
    },
    },
    "remainingCapacity1":{
        "epc":"0xE2",
        "descriptions":{
            "ja":"車載電池の電池残容量1",
            "en":"Remaining stored electricity of vehicle mounted battery1"
        },
        "writable":false,
        "observable":false,
        "schema":{

```

```

        "type":"number",
        "unit":"Wh"
    }
},
"remainingCapacity3":{
    "epc":"0xE4",
    "descriptions":{
        "ja":"車載電池の電池残容量3",
        "en":"Remaining stored electricity of vehicle mounted battery3"
    },
    "writable":false,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"%",
        "minimum":0,
        "maximum":100
    }
},
"vehicleId":{
    "epc":"0xE6",
    "descriptions":{
        "ja":"車両ID",
        "en":"Identification of electric vehicle"
    },
    "writable":false,
    "observable":false,
    "schema":{ "type":"string" }
},
"targetChargingElectricEnergy1":{
    "epc":"0xE7",
    "descriptions":{"ja":"充電量設定値1", "en":"Charging amount setting 1"},
    "writable":true,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"Wh",
        "minimum":0,
        "maximum":999999999
    }
},
"chargingElectricPower":{
    "epc":"0xEB",
    "descriptions":{"ja":"充電電力設定値", "en":"Charging electric energy
setting"},
    "writable":true,
    "observable":false,
    "schema":{
        "type":"number",
        "unit":"W",
        "minimum":0,
        "maximum":999999999
    }
},
"chargingCurrent":{
    "epc":"0xED",

```

```

        "descriptions":{"ja":"充電電流設定値", "en":"Charging current setting"},
        "writable":true,
        "observable":false,
        "schema":{"
            "type":"number",
            "unit":"A",
            "minimum":0,
            "maximum":6553.3,
            "multipleOf":0.1
        }
    }
}
}
}

```

拡張照明システム:enhancedLightingSystem:0x02A4

Properties

Property Resource Name	Access Method	Data Type	EPC(EL)	プロパティ名称(EL)	Note
brightness	GET, PUT	number	0xB0	照度レベル設定 Illuminance level	*1
sceneld	GET, PUT	number	0xC0	シーン制御設定 Scene Control Setting	*1
maximumNumberOfsceneld	GET	number	0xC1	シーン制御設定可能数 Number that can assign scene control setting	
powerConsumptionRateList	GET	number	0xC2	電力消費率リスト Power Consumption Rate List	*1
powerConsumptionAtFullLighting	GET	number	0xC3	全灯時消費電力 Power Consumption at Full Lighting	*1
powerConsumptionWillBeSaved	GET	number	0xC4	節電可能消費電力 Power Consumption that will be saved	*1
powerConsumptionLimitSetting	GET, PUT	number	0xC5	消費電力制限設定 Power Consumption Limit Setting	*1

*1 AIF対応プロパティ

```

{
  "deviceType":"enhancedLightingSystem",
  "eoj":"0x02A4",
  "descriptions":{"ja":"拡張照明システム", "en":"Enhanced Lighting System"},
  "properties":{"
    "brightness":{"
      "epc":"0xB0",

```

```
    "descriptions":{ "ja":"照度レベル設定","en":"Illuminance level"},
    "writable":true,
    "observable":false,
    "schema":{
      "type":"number",
      "unit":"%",
      "minimum":0,
      "maximum":100
    }
  },
  "sceneId":{
    "epc":"0xC0",
    "descriptions":{ "ja":"シーン制御設定","en":"Scene Control Setting"},
    "writable":true,
    "observable":false,
    "schema":{
      "type":"number",
      "minimum":1,
      "maximum":253
    },
    "note":{ "ja":"最大値はmaxNumberOfsceneControlの値", "en":"Maximum value is the
value of maxNumberOfsceneControl"}
  },
  "maximumNumberOfsceneId":{
    "epc":"0xC1",
    "descriptions":{ "ja":"シーン制御設定可能数","en":"Number that can assign scene
control setting"},
    "writable":false,
    "observable":false,
    "schema":{
      "type":"number",
      "minimum":1,
      "maximum":253
    }
  },
  "powerConsumptionRateList":{
    "epc":"0xC2",
    "descriptions":{ "ja":"電力消費率リスト","en":"Power Consumption Rate List"},
    "writable":false,
    "observable":false,
    "schema":{
      "type":"array",
      "minItems":1,
      "maxItems":253,
      "items":{
        "type":"number",
        "unit":"%",
        "minimum":0,
        "maximum":100
      }
    }
  },
  "powerConsumptionAtFullLighting":{
    "epc":"0xC3",
    "descriptions":{ "ja":"全灯時消費電力","en":"Power Consumption at Full
Lighting"},
```


*1 AIF対応プロパティ

*2 EPC=0xC2, C3, C4, C5, C6, C7に対応した値をobjectのarrayで表現する

Device Description

```
{
  "deviceType": "controller",
  "eoj": "0x05FF",
  "descriptions": {"ja": "コントローラ", "en": "Controller"},
  "properties": {
    "controllerId": {
      "epc": "0xC0",
      "descriptions": {"ja": "コントローラID", "en": "Controller ID"},
      "writable": false,
      "observable": false,
      "schema": { "type": "string" }
    },
    "numberOfDevices": {
      "epc": "0xC1",
      "descriptions": {"ja": "管理台数", "en": "Number of devices controlled"},
      "writable": false,
      "observable": false,
      "schema": {
        "type": "number",
        "minimum": 0,
        "maximum": 65533
      }
    },
    "deviceList": {
      "epc": "0xC2",
      "descriptions": {"ja": "機器情報リスト", "en": "List of device information"},
      "writable": false,
      "observable": false,
      "schema": {
        "type": "array",
        "minItems": 1,
        "maxItems": 65533,
        "items": {
          "type": "object",
          "properties": {
            "deviceId": { "type": "string" },
            "deviceType": { "type": "string" },
            "connection": {
              "type": "string",
              "enum": ["connected", "disconnected", "notRegistered",
"deleted"],
              "values": [
                {"value": "connected", "descriptions": {"ja": "接続中",
"en": "Connected"}, "edt": "0x41"},
                {"value": "disconnected", "descriptions": {"ja": "離脱中",
"en": "Disconnected"}, "edt": "0x42"},
                {"value": "notRegistered", "descriptions": {"ja": "未登録",
"en": "Not registered"}, "edt": "0x43"},
                {"value": "deleted", "descriptions": {"ja": "削除",
"en": "Deleted"}, "edt": "0x44"}
              ]
            }
          }
        }
      }
    }
  }
}
```

```
    ]
    },
    "manufactureCode":{ "type":"string" }
  }
}
},
"note":{
  "ja":"EPC=0xC2, C3, C4, C5, C6, C7に対応した値をobjectのarrayで表現する",
  "en":"This property deal with info from 0xC2, C3, C4, C5, C6 and 0xC7
altogether."
}
}
}
}
```