

## General Terms

## 一般能源名詞

1.1 General Terms	1.1 一般能源名詞
1.1.1 The energy industries; the energy sector; the energy economy That part of the national economy that is concerned in meeting a nation's energy requirements.	1.1.1 能源工業；能源部門；能源經濟 國家經濟體系中滿足國家能源需求有關的部門。
1.1.2 Natural energy see 1.5.3.1	1.1.2 天然能源 存在於自然界中且可藉技術方法取得的能源總量。參閱 1.5.3.1
1.1.3 Primary energy; crude energy Energy that has not been subjected to any conversion or transformation process.	1.1.3 初級能源；原始能源 尚未加以轉化或轉換處理的能源。
1.1.4 Secondary energy; derived energy Energy that has been produced by the conversion or transformation of primary energy or of another secondary form of energy.	1.1.4 二級能源；次級能源；衍生能源 利用初級能源或其他二級能源加以轉化或轉換處理後的能源。
1.1.5 Energy supplied; energy available The energy made available to the consumer before its final conversion (i.e. before final utilisation).	1.1.5 可用能源；可供能源 最後轉化過程（即最後使用過程）之前可供消費者使用的能源。
1.1.6 Useful energy; net energy The energy made usefully available to the consumer in its final conversion (i.e. in its final utilisation).	1.1.6 有效能源；淨能 能源經最後轉化過程（即最後使用過程）而可供消費者使用的能源。
1.1.7 Sources of energy All sources from which useful energy can be recovered directly or by means of a conversion or transformation process. The terms "sources of energy", "forms of energy" and "energy" are interchangeable in many contexts. See under 1.1.3 above.	1.1.7 能源 直接應用或經由轉化或轉換過程後應用的所有能源。「能源」「能源形式」及「能量」本文中是相通的。
1.1.8 Energy Transformation The recovery or production of energy involving a physical change of state of the form of energy (e.g. coal liquefaction); In English usage the term "energy conversion" is commonly employed in both this sense and in the sense given in 1.1.10 below.	1.1.8 能源轉換 能源由一種物理形態經物理變化後轉換為另一物理形態的過程（如煤液化）。「能源轉化」有時亦被應用於本意義。

1.1.9 Energy conversion The recovery or production of energy involving no change in the physical state of the form of energy supplied.	1.1.9 能源轉化 能源的回收或生產並不涉及物理形態的改變（如煤煉焦）。1.1.10 能源利用 由可供能源獲得有效能源。
1.2 Energy Balance Terms	1.2 能源平衡名詞
1.2.1 Energy balance A quantitative statement referred to a specific economic area, system or process for a specified period of time, of the energy input on the one side and energy consumption on the other, the statement including losses occurring in conversion and transport as well as well as input of forms of energy that are not utilized for energy purposes. The term "heat balance" is analogous.	1.2.1 能源平衡 就某一特定的經濟區域、系統或製程，在一特定時間內的能源投入及能源消費的數量表示，包括在轉化或運輸過程中的損失及用於非能源用途的能源物質投入。「熱平衡」是一類似用語。
1.3 Terms Relating to Time and capacity	1.3 有關時間與容量之名詞
1.3.1 Operating time The period of time during which a plant or part of a plant supplies useful energy.	1.3.1 運轉時間 電廠或其他部份機組供電時間。
1.3.2 Stand-by availability time; stand-by time; reserve shutdown time The period of time during which a plant or a part of a plant could supply useful energy after the normal period of start-up.	1.3.2 備轉時間 機組正常起動後即可供電之待機時間（機組無故障情況之待機時間）。
1.3.3 Planned unavailability time; planned outage time; planned down time The period of time during which a plant or part of a plant is not in running order due to planned maintenance.	1.3.3 計畫停機時間 機組有計畫的停機檢修時間。
1.3.4 Unplanned unavailability time; unplanned outage time; unplanned down time The period of time during which a plant or part of a plant is not in running order due to unforeseen breakdown.	1.3.4 非計畫停機時間 機組因意外故障而停機檢修之時間。
1.3.5 Availability time The sum of the operating time and the stand-by availability time, etc.	1.3.5 可用時間 運轉時間與備轉時間之和。
1.3.6 Unavailability time; outage time; down	1.3.6 不可用時間；停機時間 計畫停機與非計

<p>time The total of the planned and unplanned unavailability time, etc.</p> <p>1.3.7 Reference period The period of time to which data relate; in the context of this Section it is the sum of the availability time and the unavailability time, etc.</p> <p>1.3.8 Utilisation period (of maximum demand) The quotient of the energy obtained, produced, distributed or consumed within a specific period and the maximum capacity of (or demand on) the plant occurring within the same period.</p> <p>1.3.9 Availability time ratio When referred to a plant or part of a plant, the ratio of the availability time to the reference period.</p> <p>1.3.10 Operating time ratio The ratio of the operating time to the reference period.</p> <p>1.3.11 Nominal capacity; rated capacity; rated power; rating The maximum continuous capacity/ power/ rating for which the plant has been ordered and designed, as indicated on the makers' nameplate or in the manufacturers' specification.</p> <p>1.3.12 Nominal generation; nominal production The product of the nominal capacity and the reference period. The term "nominal output" is sometimes employed; the word "output", however, is imprecise and may mean either production or capacity.</p> <p>1.3.13 Lead time The period of time that elapses between the date of ordering (or any other appropriate, specified date, e.g. the date of commencement of planning, the date of commencement of work at the site) of an installation or plant and the date on which the installation or plant or the first unit of the installation or plant is contractually deemed to be delivered or</p>	<p>畫停機時間之和。</p> <p>1.3.7 參考時間 資料相關期間，即可用時間與不可用時之和。</p> <p>1.3.8 利用率 機組在一特定期間而生產之能量除以該機組在同一期間內可能最大產能之商。</p> <p>1.3.9 可用時間率 機組可用時間與參考期間之比值。</p> <p>1.3.10 運轉時間率 運轉時間與參考期間之比值</p> <p>1.3.11 標稱容量；額定容量；額定電力；額定機組之最大連續出力，載明於製造者名牌上或廠商之規範中。</p> <p>1.3.12 標稱發電量；標稱產能 在標稱容量與參考期間的產能，有時也使用「標稱出力」一詞，然「出力」並不正稱，蓋其可表示產能或容量。</p> <p>1.3.13 前置時間 一設施或工場之訂貨日期（或任何其他動用之特別日期，例如計畫著手日期）與其設施或工場或第一套設施或工場想訂定交貨或委辦日期之間所經過的一段時間。</p>
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<p>commissioned.</p> <p>1.3.14 System load factor (annual) The ratio of the average load throughout the year on an energy system to the maximum load on the system during that year, expressed as a percentage and employed as a measure of the fluctuating pattern of consumer demand. In order to allow for weather variations when comparing one year with another, the true system load factor may be adjusted on average cold spell conditions.</p> <p>1.3.15 Load factor The ratio of the consumption within a specified period (year, month, day etc.) to the consumption that would result from continuous use of the maximum or other specified demand occurring within the same period.</p>	<p>1.3.14 系統負載因數（每年） 一能源系統上全年平均負載對當年該系統上最高負載之比例而以百分率表示，並以用戶需求之波動模型測定之。為了本年與他年作比較時斟酌氣候變化，此真實系統的負載因數可以平均冷天的狀況調整之。</p> <p>1.3.15 負載因數 在一特別期間（年、月、天等）內之消費對同一期間內因連續最大使用或其他特別需求發生所引起的消費比例。</p>
<p>1.4 Supply Characteristics</p>	<p>1.4 供應特性</p>
<p>1.4.1 Energy consumption The utilization of energy for conversion to secondary energy or for the production of useful energy. It should be stated whether the energy consumed is primary energy, secondary energy, energy supplied or useful energy.</p> <p>1.4.2 Customer The party who receives the energy supplied from the supply or distribution undertaking. In most contexts a wholesale purchaser.</p> <p>1.4.3 Consumer The party who uses the final energy supplied for his own needs.</p> <p>1.4.4 Per capita consumption The quotient of the energy consumption of an area and the population of that area.</p> <p>1.4.5 Security of supply The assurance that energy will be available in the quantities and qualities required under given economic conditions.</p>	<p>1.4.1 能源消費 能源之使用以轉換為次級能源或產生可利用之能源。務必說明所消費之能源究為初級能源、次級能源、可供能源或有效能源。</p> <p>1.4.2 客戶 接收能源供應或能源分銷者所提 供能源之一方，通常指批發商。</p> <p>1.4.3 消費者 使用最終能源以供本身需要者。</p> <p>1.4.4 每人消費量 地區之能源消費量除以該地區人口之商。</p> <p>1.4.5 安全供應 在一定經濟條件下，可取得能源數量與品質之保證。</p>
<p>1.5 Additional Terms</p>	<p>1.5 增訂名詞</p>

<p>1.5.1 Fundamental terms</p> <p>1.5.1.1 Energy The capacity of a system to produce external activity (Max Planck). Forms of energy: Mechanical energy (potential and kinetic), Thermal energy (internal energy, enthalpy), Chemical bond energy, Physical bond energy, Electromagnetic radiation energy, Electrical energy.</p> <p>1.5.1.2 Energy Measure of the convertibility of energy. The maximum amount out of a given quantity of energy that under prevailing (ambient) thermodynamic conditions may be converted into another form of energy. Expressed in joules.</p> <p>1.5.1.3 Anergy Energy that cannot be converted into another form of energy (e.g. ambient heat).</p> <p>1.5.1.4 Energy systems Materials or equipment that contain energy as an intrinsic property or as an input.</p>	<p>1.5.1 基本名詞</p> <p>1.5.1.1 能源 一系統產生外界活動力（馬克斯普蘭克）之能力。 能源形式： 機械能（位能和動能） 熱能（內能、焓） 化學鍵能 物理鍵能 電磁輻射 能電能</p> <p>1.5.1.2 能質 能量可轉換性之量度。一已知的能量在優越（周遭）的熱力學條件下可轉換為他種形式能量的最大數量。以焦耳表示。</p> <p>1.5.1.3 惰能 不能轉換為其他能源形式的能量（例如周遭熱）。</p> <p>1.5.1.4 能源系統 可將能源做為固有物質或進料之材料或設備。</p>
<p>1.5.2 General terms</p> <p>1.5.2.1 Energy policy That part of national (or international) policy that is concerned with the production and supply of energy, its conversion, storage, distribution and utilization and with the formulation of measures aimed at equating anticipated overall demand for energy with the presumed availability nationally and internationally of sources of energy; such a policy would take account of the potential for energy conservation, in particular, of finite fuel resources as well as of environmental amenity.</p> <p>1.5.2.2 Energy technology Those branches of technology that are concerned with the</p>	<p>1.5.2 一般名詞</p> <p>1.5.2.1 能源政策 國家（或國際）政策的一部分，涉及能源的生產和供應、轉換、儲存、分配和利用、以及制定策略以求掌握國家及國際的可用能源資源俾滿足預期的能源需求量；此政策亦考慮能源節約，尤其是有限燃料的潛力，以及環境的調諧。</p> <p>1.5.2.2 能源技術 能源的生產、轉換、儲存、分配和利用相關之技術。</p>

<p>production, conversion, storage, distribution and utilization of energy.</p> <p>1.5.2.3 Energy shortage; energy gap Situation in which energy demand exceeds' anticipated energy supply.</p> <p>1.5.3 Energy resources</p> <p>1.5.3.1 Natural energy All naturally occurring forms or sources of energy.</p> <p>1.5.3.2 Occurrences of energy</p> <p>(1) All naturally occurring concentrations of energy or sources of energy that are technically exploitable, irrespective of whether they are economically exploitable. (The above definition is at variance with the second definition below, but is employed in some existing systems of classification.)</p> <p>(2) Naturally occurring forms of energy or sources of energy which have not been assessed as resources (q.v.) (The International Classification of Mineral Resources, U.N., New York, 1979).</p> <p>1.5.3.3 Mineral fuels Raw materials extracted, or extractable, from natural mineral sources, containing energy that can be released by chemical reaction or nuclear conversion. The following are mineral fuels: solid, liquid and gaseous fossil fuels, and nuclear fuels.</p> <p>1.5.3.3.1 Occurrences of mineral fuels</p> <p>(1) All natural concentrations of mineral fuels with reference to form and content but irrespective of their economic value. (The above definition is at variance with the second definition below, but is employed in some existing systems of classification.)</p> <p>(2) Known and speculative, naturally occurring concentrations of mineral fuels</p>	<p>1.5.2.3 能源短缺；能源差距 能源需求超過預期的能源供應之情況。</p> <p>1.5.3 能源資源</p> <p>1.5.3.1 天然能源 所有自然產出的能源形式或能量來源。</p> <p>1.5.3.2 能源產出</p> <p>(1)所有自然產出的能源或能量來源，其為技術上可開採，而不問其在經濟上是否可開採。(以上的定義和下列第二個定義相矛盾，但在某些現有分類系統上採用。)</p> <p>(2)自然產出的能量形式或能源來源，而其尚未接受評估的資源(The International Classification of Mineral Resources, U.N., New York, 1979)。</p> <p>1.5.3.3 礦物燃料 由天然礦物提煉出的或可提煉的原料，其所含能源可藉化學反應或核能轉換釋放出來者。下列為礦物燃料：固體、液體或氣體化石燃料和核能燃料。</p> <p>1.5.3.3.1 礦物燃料產出</p> <p>(1)所有礦物燃料只問形式和含量但不問其經濟價值，(上述定義和下列第二個定義相矛盾，但在現有某些分類系統已採用。)</p> <p>(2)已知的和推估的自然產出礦物燃料，而未作資源評估。(The International Classification of Mineral Resources, U.N., New York, 1979)</p>
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<p>which have not been assessed as resources (q.v.) (The International Classification of Mineral Resources, U.N., New York, 1979).</p> <p>1.5.3.3.2 Resources of mineral fuels</p> <p>(1) Known and speculative, naturally occurring concentrations of mineral fuels that are either already of economic value or whose economic value may be assumed to be realized within the foreseeable future. Note The above definition is in broad agreement with the definition of "resources" given on page 5 of the Survey of Energy Resources, World Energy Conference, Detroit, 1974, and with the term "resources" as understood in The International Classification of Mineral Resources, U.N., New York, 1979.</p> <p>(2) Artificially created stocks of mineral fuels.</p> <p>1.5.3.3.3 Resources of mineral fuels Known resources of mineral fuels that under the local conditions prevailing at the time of their assessment may be economically exploited.</p> <p>1.5.3.3.4 Mineral fuel deposits A geological formation that contains resources of mineral fuels.</p> <p>1.5.3.3.5 Exploitable deposit; exploitable resource A deposit or resource that may be assessed as being economically worth exploiting under the conditions prevailing at the time of the assessment.</p> <p>1.5.3.3.6 Potentially exploitable deposit; potentially exploitable resource A deposit or resource that may be assumed to become economically worth exploiting in the foreseeable future.</p>	<p>1.5.3.3.2 礦物燃料資源</p> <p>(1) 已知的和推估的自然產出礦物燃料，其已具經濟價值或在未來可見經濟價值者。</p> <p>1.5.3.3.3 礦物燃料蘊藏 已知礦物燃料來源，在當地當時條件下其效益評估認為具有經濟開採價值者。</p> <p>1.5.3.3.4 礦物燃料礦床 一含有礦物燃料資源的地質構造。</p> <p>1.5.3.3.5 可採礦床；可採資源 一礦床或資源在當地當時條件下其效益評估認為具有經濟開採價值者。</p> <p>1.5.3.3.6 預期可採擴床；預期可採資源 一礦床或資源在可預期的未來將具有經濟開採價值者。</p>
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<p>1.5.3.4 Solid, liquid and gaseous fuels Combustible substances whose chemical energy (calorific value) is such that they may be utilized as a source of commercial energy.</p>	<p>1.5.3.4 固體、液體和氣體燃料 可燃物質其化學能（卡路里值）可以利用為商業性能源的來源。</p>
<p>1.5.3.5 Sedimentary basin A geologically depressed zone that has undergone subsidence continuously over several million years with progressive accumulation of sediments, at least one kilometer thick in the interior and thinning at the edges; it may be either structural or depositional.</p>	<p>1.5.3.5 堆積盆地 一地質的沉降帶經過數百萬年不斷的進行沉積物之積聚而已遭受陷落，在內陸中至少一公里厚且邊緣變薄；其可能是屬於構造性的或沉積性的。</p>
<p>1.5.4 Supply</p>	<p>1.5.4 供應</p>
<p>1.5.4.1 Available energy supply The flow of energy drawn from all naturally occurring finite and renewable energy resources that is available to meet the demand for energy within the prevailing economy.</p>	<p>1.5.4.1 可用能源供應 能源的流量引自所有有限自然產出和再生能源資源，其為可利用的且在有利的經濟上配合能源需求。</p>
<p>1.5.4.2 Energy reserves Known energy resources that are economically exploitable.</p>	<p>1.5.4.2 能源蘊藏 已知能源資源具經濟可採價值者。</p>
<p>1.5.4.3 Renewable energy resources Known and speculative, naturally occurring, continuously renewed energy resources that are either already of economic value or whose economic value may be assumed to be realized within the foreseeable future.</p>	<p>1.5.4.3 再生能源資源 已知的和推估的，自然產出的，不斷再生的能源資源其已具經濟價值或在未來可具經濟價值者。</p>
<p>1.5.4.4 Finite energy resources Known and speculative, naturally occurring, exhaustible energy resources that are either already of economic value or whose economic value may be assumed to be realized within the foreseeable future.</p>	<p>1.5.4.4 有限能源資源 已知的和推估的，自然產出的耗竭性能源資源其已具經濟價值或在未來可具經濟價值者。</p>