

# INSPIRE – Energy Resources (ER)



INSPIRE  
Infrastructure for Spatial Information in Europe

## D2.8.II/III.20 Data Specification on Energy Resources – Draft Guidelines

<b>Title</b>	D2.8.II/III.20 INSPIRE Data Specification on <i>Energy Resources</i> – Draft Guidelines
<b>Creator</b>	INSPIRE Thematic Working Group <i>Energy Resources</i>
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<b>Contributor</b>	Members of the INSPIRE Thematic Working Group <i>Energy Resources</i>
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<b>Coverage</b>	Project duration

### *Energiequellen:*

→ Kohlenwasserstoffe  
→ Kohle  
Torf

→ Wasserkraft  
Bioenergie  
Windenergie  
Thermische Energie  
Solarenergie  
Marine Energie (Wellen- Gezeitenenergie)

### *Mitglieder der Arbeitsgruppe:*

Dr. H.-J. Brauner

LBEG

Öl & Gas

Dr. S. Schmidt

BGR

Kohle

S. Pester

LBEG

Geothermie



Landesamt für  
Bergbau, Energie  
und Geologie

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## Drei „Applikations Schemata“



### **Base**

## **Übersicht über Energiequellen**

*ResourceTypeValue / SpecialisedResourceTypeValue*

### **Feature**

## **Räumliche Objekte von Energiequellen**

*EnergyResource ⇔ NonRenewableEnergyResource / RenewableEnergyResource*

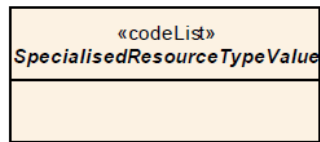
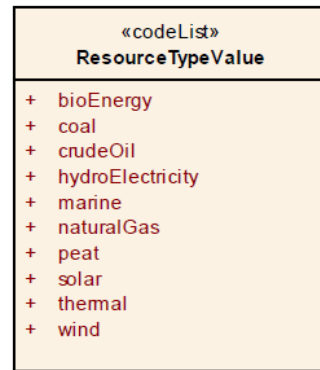
### **Coverage**

## **Veränderungen der energetischen Eigenschaften durch Rasterdarstellungen**

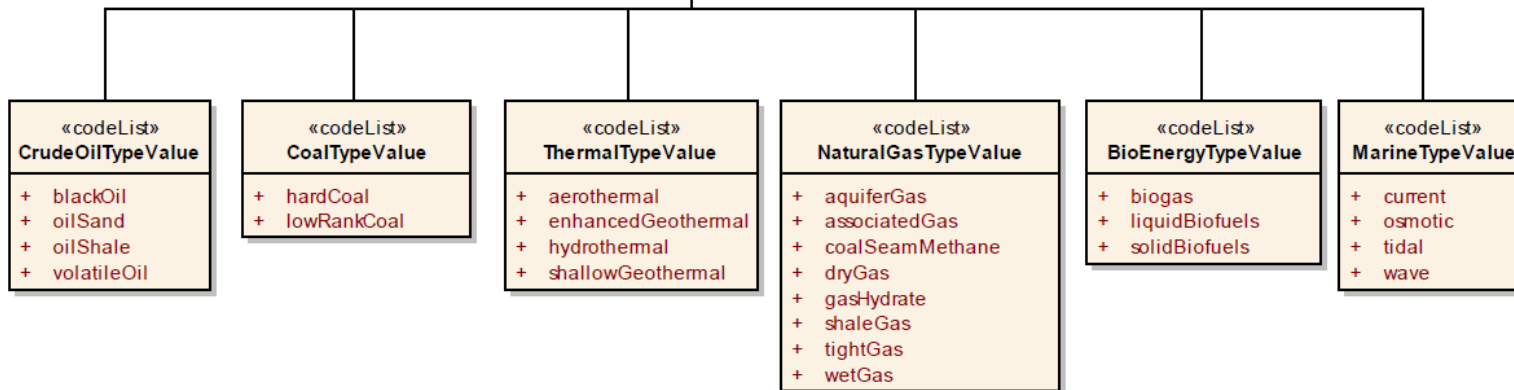
*Für erneuerbare Energien*

# INSPIRE – Energy Resources (ER) BASE-Schema

class Energy Resources - Base: Overview

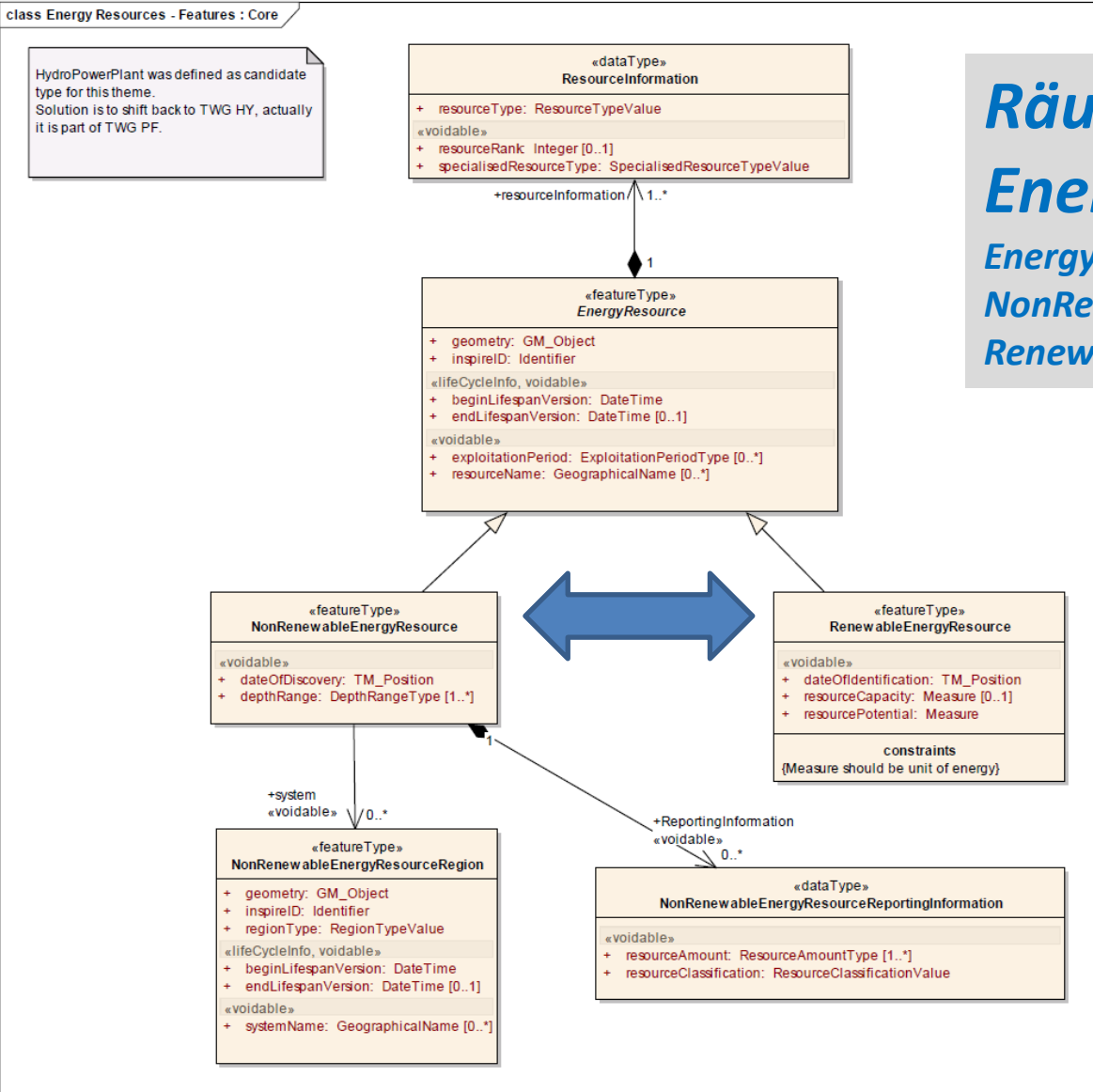


*Übersicht über Energiequellen  
CodeLists:  
ResourceTypeValue  
SpecialisedResourceTypeValue*



# INSPIRE – Energy Resources (ER) Feature-Schema

**Räumliche Objekte von  
Energiequellen**  
*EnergyResource* ⇔  
*NonRenewableEnergyResource* /  
*RenewableEnergyResource*

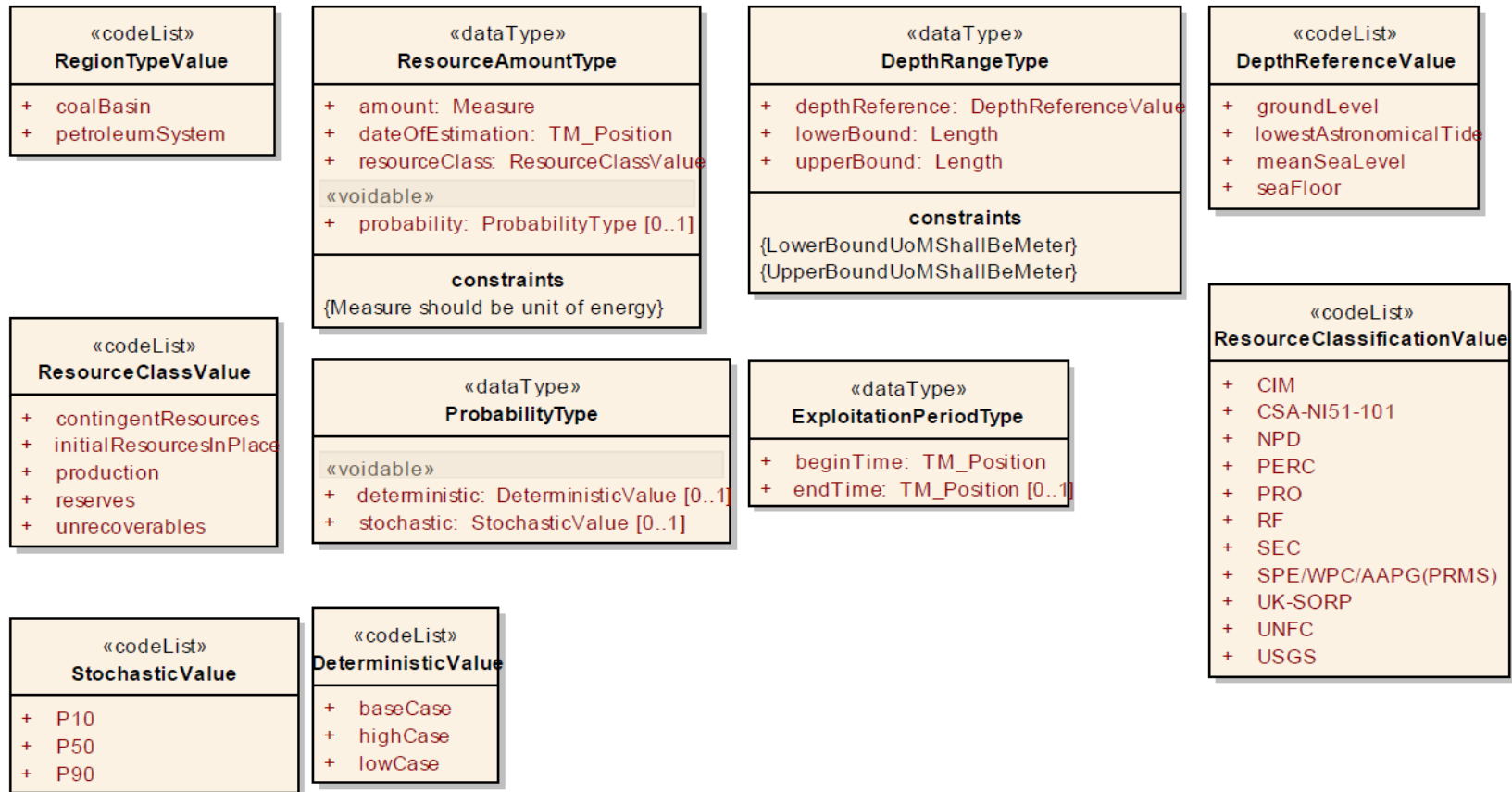


# INSPIRE – Energy Resources (ER)

## Feature-Schema: Datatypes and Codelists

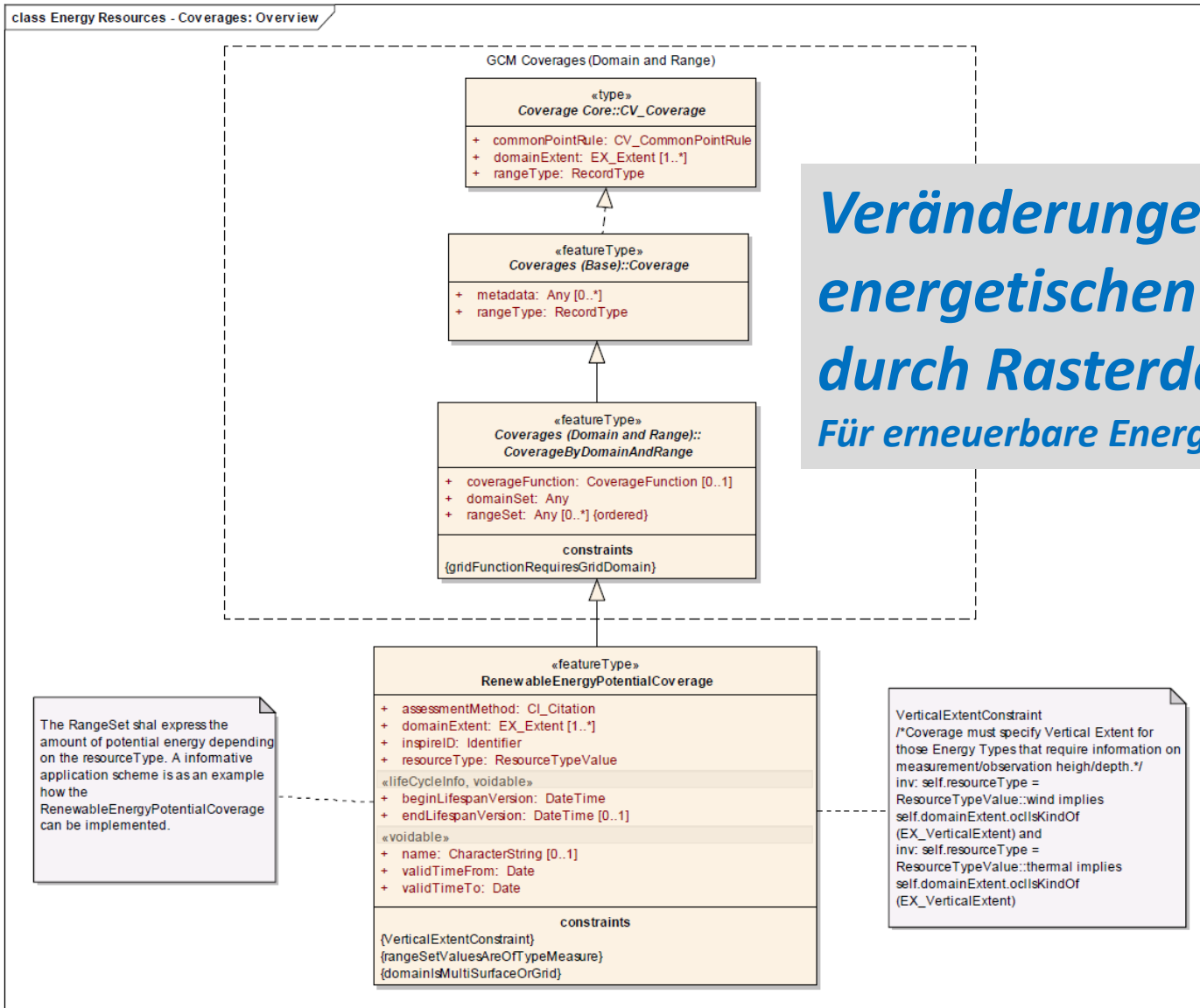
class Energy Resources - Features : Datatypes and Codelists

Datatypes and Codelists



# INSPIRE – Energy Resources (ER) COVERAGE-Schema

*Veränderungen der energetischen Eigenschaften durch Rasterdarstellungen für erneuerbare Energien*



# INSPIRE – Energy Resources (ER)

## Stand der Arbeiten

### Energiequellen:



Kohlenwasserstoffe  
Kohle  
Torf



Wasserkraft  
Bioenergie  
Windenergie  
Thermische Energie  
Solarenergie  
Marine Energie (Wellen- Gezeitenenergie)

CONSULTATION Commenting Spreadsheet						
Document	Number of chapter, section or	Paragraph, figure, diagram, table	Short title	Comment	Proposed change	Severity
<p>For data specifications (D2.8.x) use a <b>comma-separated list of two letter theme acronyms</b> (e.g. "AC, MF, DF, SR") or "all" (to refer to all data specifications)                      - For the proposed changes to D2.5 &amp; D2.7, use "D2.5/2.7"                      - For the O&amp;M guidelines (D2.9), use "D2.9"                      Use the number of the chapter, section or (sub-)clause. Use "3.1" instead of "Clause 3.1" or "Chapter 6.1". For comments referring to the whole document, use "all".                      (This field is validated using a macro)</p>						
ER	5.3.2.2.5	Table 1, Value: shaleGas, NOTE	Definition with lithology instead of permeability values required	Shale Gas should be defined over the lithology "shale" and not with secret values for permeability. In addition the permeability of shale gas is about a factor 100-1000 smaller than the permeability of tight gas, which is about 0.1mDarcy.	Delete NOTE	Normal
ER	5.3.2.2.5	Table 1, Value: tightGas, Definition	Gas is not generated (it is accumulated) in sandstones or carbonate	Reservoir rock is not equal to source rock in tight gas.	Gas which had been accumulated in sandstone or carbonate rock environment with very low permeability (below 0.1milliDarcy).	Normal
ER	5.4.1.2	page 26, paragraph beneath Fig. 5, ResourceInformation, hollow circle 1 and 2	Examples given in "specialisedResourceType" belong to "resource Type" (wrong place)	In section 5.3.2.2.6 ResourceTypeValue the values "crudeOil" and "coal" etc. are listed. In the example here these values are shown for "specialisedResourceType".	Move example (in brackets) from "specialisedResourceType" to "resourceType"	Normal
ER	2.2	2nd paragraph	comment about the definition of coal	suggest more detailed/accurate definition	Replace by the following sentences: Coals are solid, combustible, fossil sediments originated predominantly of dead organic material, which were subject to diagenetic changes after they were deposited and covered; these changes caused an enrichment of carbon. Coal consists of macerals, the organic pendant of minerals, and impurities, which are also called partings or dirt bands. The impurities usually consist of clay, shale or sandstone and form non-combustible and thus undesired components of coal. Coals are thus heterogeneous mixtures of different organic substances and inorganic materials, in particular water and mineral admixtures. Source: BGR(2003): Energy Resources 2003 - Reserves, Resources, Availability Crude Oil, Natural Gas, Coal, Nuclear Fuels, Geothermal Energy, - 274 p., text + 116 p. tables; Hannover: <a href="http://www.bgr.bund.de/oln_145/nr_337268/EN/Themen/Energie/Downloads/Energierohstoffe_2003_gesamt_en.template/ldr_av_publicationFile.pdf/Energierohstoffe_2003_gesamt_en.pdf">http://www.bgr.bund.de/oln_145/nr_337268/EN/Themen/Energie/Downloads/Energierohstoffe_2003_gesamt_en.template/ldr_av_publicationFile.pdf</a> ; <a href="http://www.bgr.bund.de/oln_145/nr_337268/EN/Themen/Energie/Downloads/Energierohstoffe_2003_Tabellen_en.template/ldr_av_publicationFile.pdf/Energierohstoffe_2003_Tabellen_en.pdf">http://www.bgr.bund.de/oln_145/nr_337268/EN/Themen/Energie/Downloads/Energierohstoffe_2003_Tabellen_en.template/ldr_av_publicationFile.pdf</a>	Normal
ER	5.3.1.2	Figure 3	name of coal type	suggest to use the more common term "lignite" instead of "lowRankCoal" according to international BGR used classifications	replace the term "lowRankCoal" by "lignite"	Critical
ER	5.3.2.2.2	Coal type value/Value: hard coal	definition of hard coal	suggest more detailed/accurate definition	Please replace: Hard coal is rigid and of black-brown to anthracite color and has a density between 1.2 and 1.45 g/cm3. Hard coal has a calorific value of > 16500 kJ/kg and it contains sub-bituminous coal, bituminous coal and anthracite. Synonymously used terms for hard coal are black coal, bituminous coal and high rank coals. Source: BGR	Critical
ER	5.3.2.2.3	Coal type value/Value: hard coal	description of hard coal	suggest to limit the explanations under "NOTE" since they are wrong	please delete "... but low in hydrogen and oxygen."	Normal
ER	5.3.2.2.2	Coal type value/Value: lowRankCoal	definition of lignite (lowrankcoal)	suggest more detailed/accurate definition	Please replace: Lignite is soft, sliceable with a knife and as a rule has a brownish color. Lignite has a calorific value of < 16500 kJ/kg. Synonymously used terms for lignite are brown coal and low rank coals. Source: BGR	Critical
ER	5.3.2.2.3	Coal type value/Value: lowRankCoal	description of lignite	suggest to delete the explanations under "NOTE" since they are wrong	delete the NOTE	Critical
ER	5.3.2.2.7	SpecialisedResourceTypeValue(abstract)	used coal terms	suggest to replace the term "lowRankCoal" by "lignite"	replace the term "lowRankCoal" by "lignite"	Critical
ER	5.4.2.2.6	ResourceInformation	used coal terms	suggest to replace the term "lowRankCoal" by "lignite"	replace the term "lowRankCoal" by "lignite"	Critical
ER	5.4.2.4.10	SpecialisedResourceTypeValue(abstract)	used coal terms	suggest to replace the term "lowRankCoal" by "lignite"	replace the term "lowRankCoal" by "lignite"	Critical