



United Nations Statistics Division

Energy Statistics Compilers Manual, Data Quality and Dissemination

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International Workshop on Energy Statistics

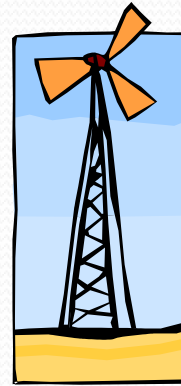
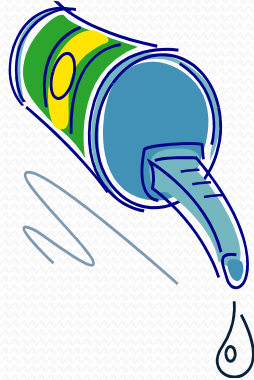
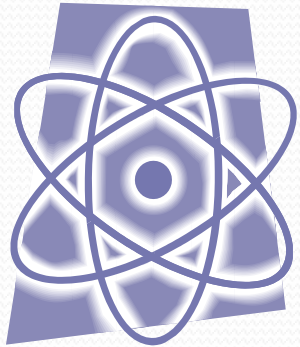
23-25 May 2016

Beijing, China



<http://unstats.un.org/unsd/energy>

IRES provides useful definitions of flows/products. But...



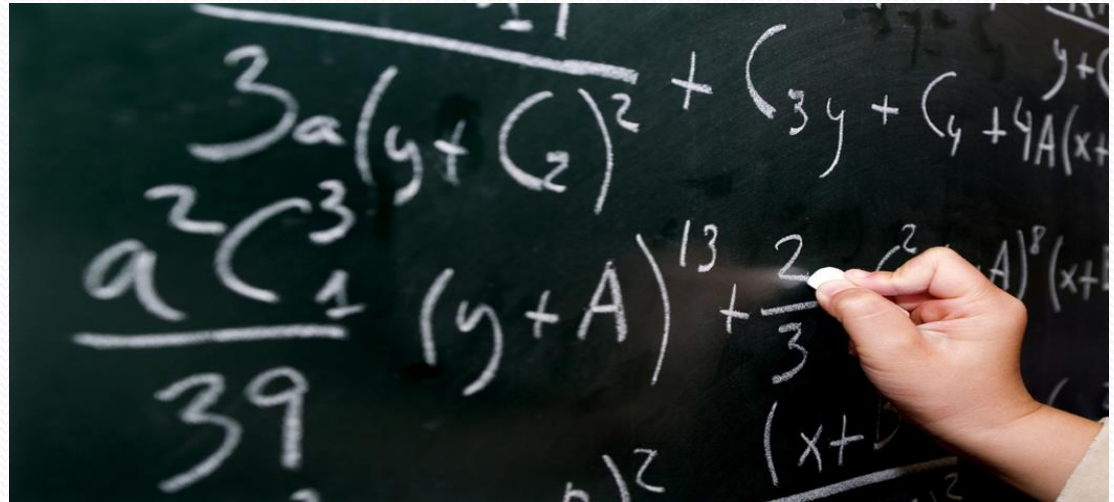
- How do these recommendations relate to MY country?
- How should I compile metadata, or handle confidentiality?
- What data sources can I use for renewables?
- Can I see some examples of other countries' practices?



The need for a Compilers Manual

- During the preparation of IRES, the need for more explanation of practical energy statistics was recognised
- A Compilers Manual should be a more hands-on, example-heavy document, to complement IRES.
- It is NOT a set of recommendations or “best” practices, but a set of voluntary guidance and examples for countries to use if they want to
- Finalisation expected this year

IRES is about definitions of flows/products:
THEORETICAL



gg63844177 www.gograph.com

ESCM is about practical guidance and country examples:
PRACTICAL

Some country practices already published (ESCM will have many more)

The screenshot shows a web browser window with the URL http://unstats.un.org/unsd/energy/template/responses_c.htm. The page title is "Country Practice Template Responses by Country". The page content includes a navigation menu, a search bar, and a table of responses by country.

United Nations Statistics Division - Energy Statistics - Windows Internet Explorer

http://unstats.un.org/unsd/energy/template/responses_c.htm

File Edit View Favorites Tools Help

United Nations Statistics Division - Energy Statistics

Home Statistical Databases Publications Methods & Classifications Meetings & Events Technical Newsletters [Site search] Go

Energy Statistics August 2012

Description of Activities
International Recommendations for Energy Statistics (IRES)
Energy Statistics Compilers Manual (ESCM)
Country Practice Template
Energy Yearbook
Energy Balances and Electricity Profiles
Energy Statistics Database
UNSD Annual Energy Questionnaire
Global Assessment on Energy Statistics and Energy Balances
Joint Oil Data Initiative (JODI)
Oslo Group
Intersecretariat Working Group on

[see responses by topic](#)

Country	Topic
Argentina	Annual energy statistics
Australia	Energy consumption
Austria	Electricity and natural gas consumption Energy analysis in industry Energy Balance Energy consumption of households Energy consumption in industry Energy consumption in the service sector

Done Internet 115%

<http://unstats.un.org/unsd/energy/template.htm>

ESCM Chapters

- Introduction
- Legal Framework & Institutions
- Classifications
- Generic Statistical Business Process Model
- Data sources (surveys and administrative data sources, estimation, modelling)
- Energy balances
- Data quality and metadata
- Data dissemination

Highlights: Balances Examples

Presentation of primary and secondary oil products in energy statistics versus energy balances

Secondary production zero by definition

Commodity Balance		
	Crude oil (kt)	Motor Gasoline (kt)
Production	100	30
Import		
Export	10	24
Supply	90	6
Oil Refineries	88	
Final Consumption	2	6

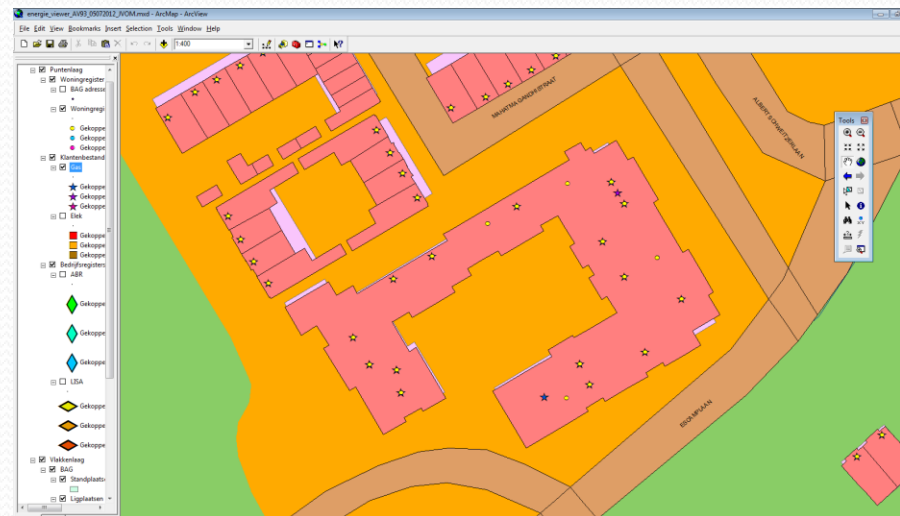
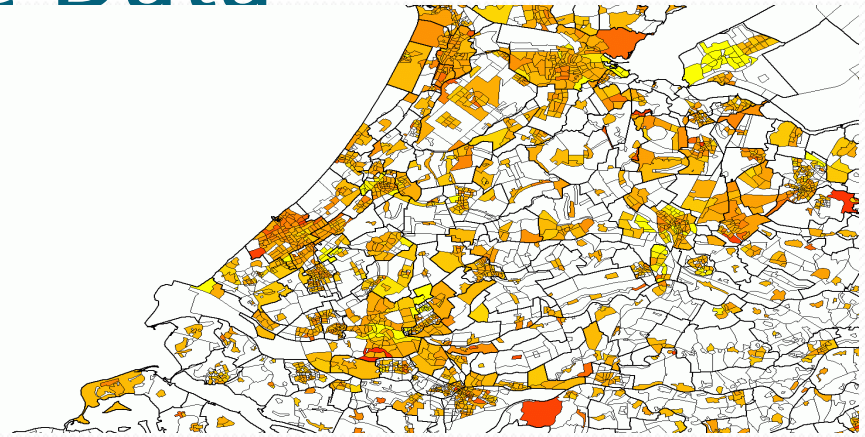
Energy Balance		
	Crude oil (TJ)	Motor Gasoline (TJ)
Production	4230	
Import		
Export	423	1063
Supply	3807	-1063
Oil Refineries	-3722	1329
Final Consumption	85	266

Motor gasoline in kt x 44.3 TJ/kt = Motor gasoline in TJ

Crude oil in kt x 42.3 TJ/kt = Crude oil in TJ

Country Example: Netherlands' Use of Administrative Data

- Successfully matched >96% of electricity and gas consumers with an address taken from the business or client register
- Allowed government to target efficiency or education campaigns on the worst areas, or even specific buildings



Other Examples

Austria: Adding an energy module to Labor Force Survey increased the response rate and reduced costs

Bulgaria: NSO's metadata policy

Norway: lessons from publishing preliminary monthly statistics and balances

UK: Energy Efficiency Data framework measures the result of energy efficiency policies

South Africa: experience with social media and dissemination in a developing country

FAO guidance on fuelwood surveys

Confidentiality practices for many countries

Azerbaijan: producing full commodity balances for all products

Legal frameworks for many countries

And many more!

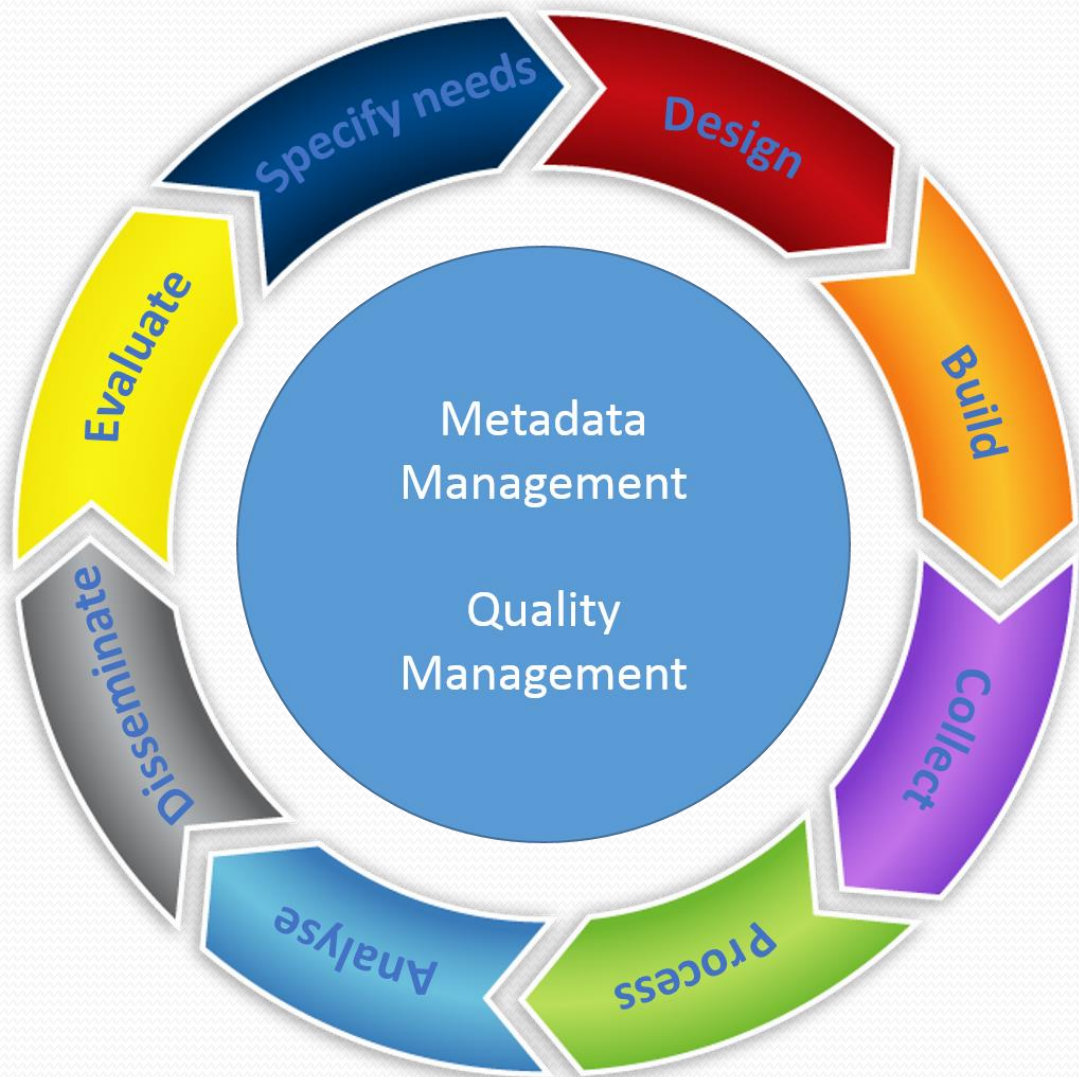
Data Quality in Energy Statistics

- IRES and ESCM data quality is based on the National Quality Assurance Framework
 - <http://unstats.un.org/unsd/dnss/qualityNQAF/nqaf.aspx>
- Developed by UNSD and has links to pre-existing quality frameworks of IMF, Latin America, Canada, UNECE
- All templates provide a structure that countries can use for their own quality assurance systems

NQAF Structure

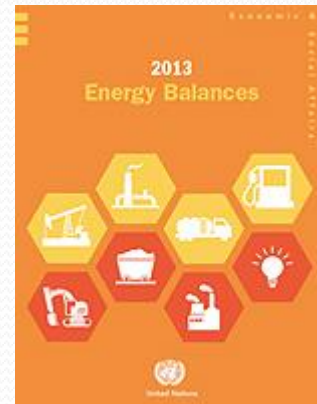
- Why is quality management needed?
- Consider existing frameworks
- Quality assurance guidelines
- Quality assessment and reporting
- N.B. not a linear model, it can be adapted to country-specific needs

Other frameworks exist, e.g. Generic Statistical Business Process Model



Energy Data Quality in Practice

- Constructing national energy balances are one of the best data quality checks.
 - Transformation efficiency checks
 - Check overall energy use over time
 - Check trade data across countries (possibly)
 - Statistical differences can be identified and pursued
 - Efforts can be concentrated on key data points



Metadata for Energy Statistics

- ESCM gives a country practice (Indonesia) on their energy metadata structure, and many other examples relating to metadata
- Metadata allow meaningful assessments of how countries' data follow international standards: they **improve international comparability**



Dissemination

- Keep to a dissemination schedule
- Respect confidentiality
- Have a transparent revision policy (example of USA natural gas revisions)
- Dissemination format is key: online computer-readable files? CDs? (South Africa example)
- Are we meeting user needs? Conduct a user survey (UK example)

Conclusion

- IRES provides energy statistics methodology and guidelines on improving data quality and disseminating the finished product
- Country-specific quality assessments and dissemination strategies are possible within the overall framework
- The ESCM shows how other countries do this
- **We're here to help: Energy_Stat@un.org**