



JODI-Gas Data Reporting System, Quality Assessment

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Joint Organisations Data Initiative (JODI)
13th Regional Training Workshop
17 – 20 May 2016, Beijing, China



- Background(Who is the GECF, GECF Vision and Mission, GECF role in gas market)
- GECF Data Reporting Mechanism
- GECF & IEF Collaboration
- Data validation techniques
- Participation assessment (smiley face) approach
- Mapping GECF and JoDI-Gas Questionnaires



GECF

What is GECF - GECF Member and Observer Countries



MEMBERS

-  **Algeria**
-  **Bolivia**
-  **Egypt**
-  **Equatorial Guinea**
-  **Iran**
-  **Libya**
-  **Nigeria**
-  **Qatar**
-  **Russia**
-  **Trinidad and Tobago**
-  **United Arab Emirates**
-  **Venezuela**

OBSERVERS:

-  **Azerbaijan**
-  **Iraq**
-  **Kazakhstan**
-  **The Netherlands**
-  **Norway**
-  **Oman**
-  **Peru**

Vision

- To become an authentic platform for Gas activities
- A Credible reference in gas studies and debate
- A center for exchange of data and information on gas
- A center for policy debate on gas and energy
- A center for exchange of experience on Gas

Mission

- To promote the use of Gas as a clean fuel and contribute to the clean environment and sustainable development;
- To increase the market share of Gas in the global energy mix;
- To contribute to the stability of the global gas market;
- To exchange data, information and experience among member countries;
- To develop Dialogue with all stakeholders, including other producers and consumers.

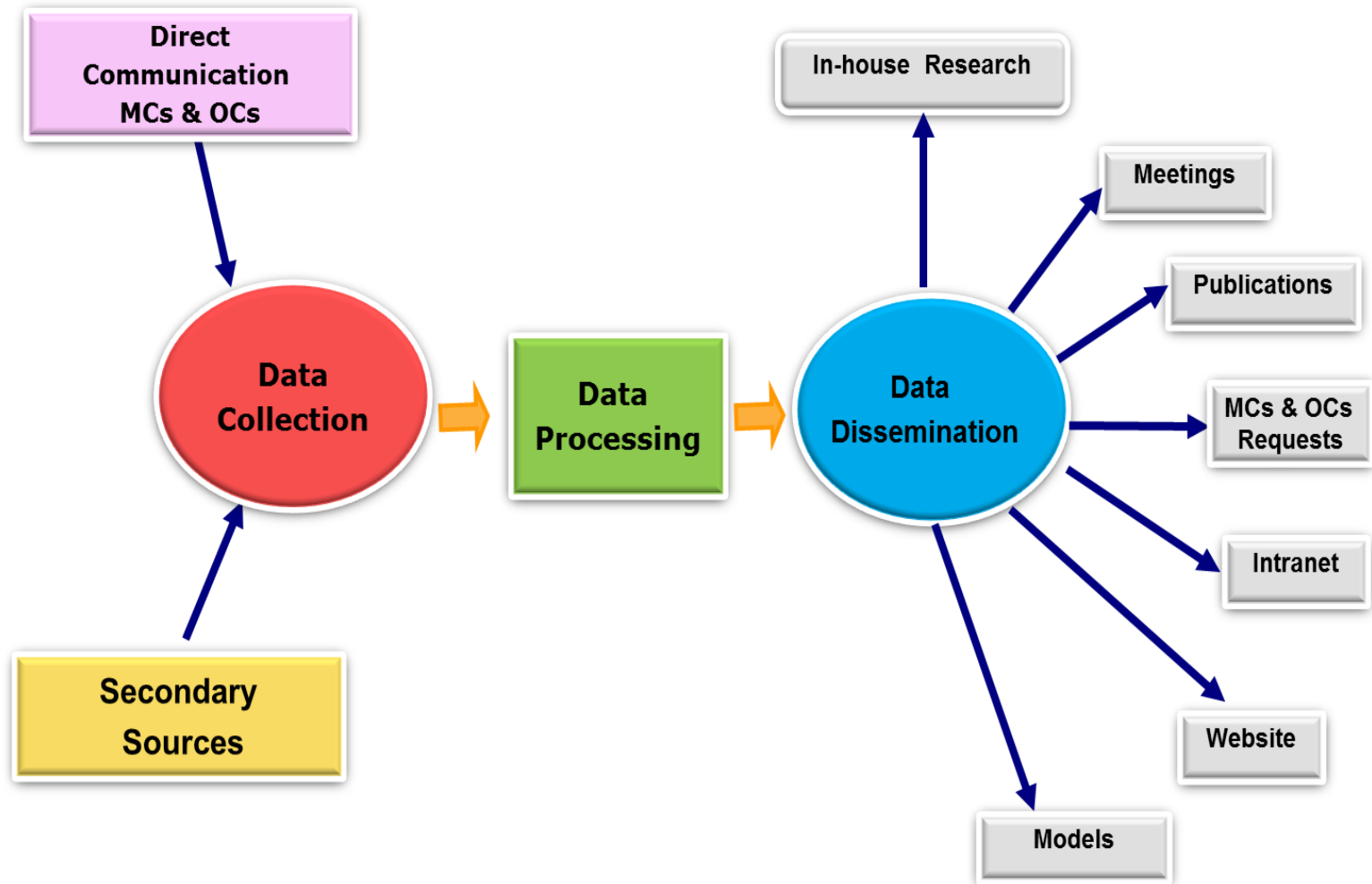
GECF reporting procedure: Objectives

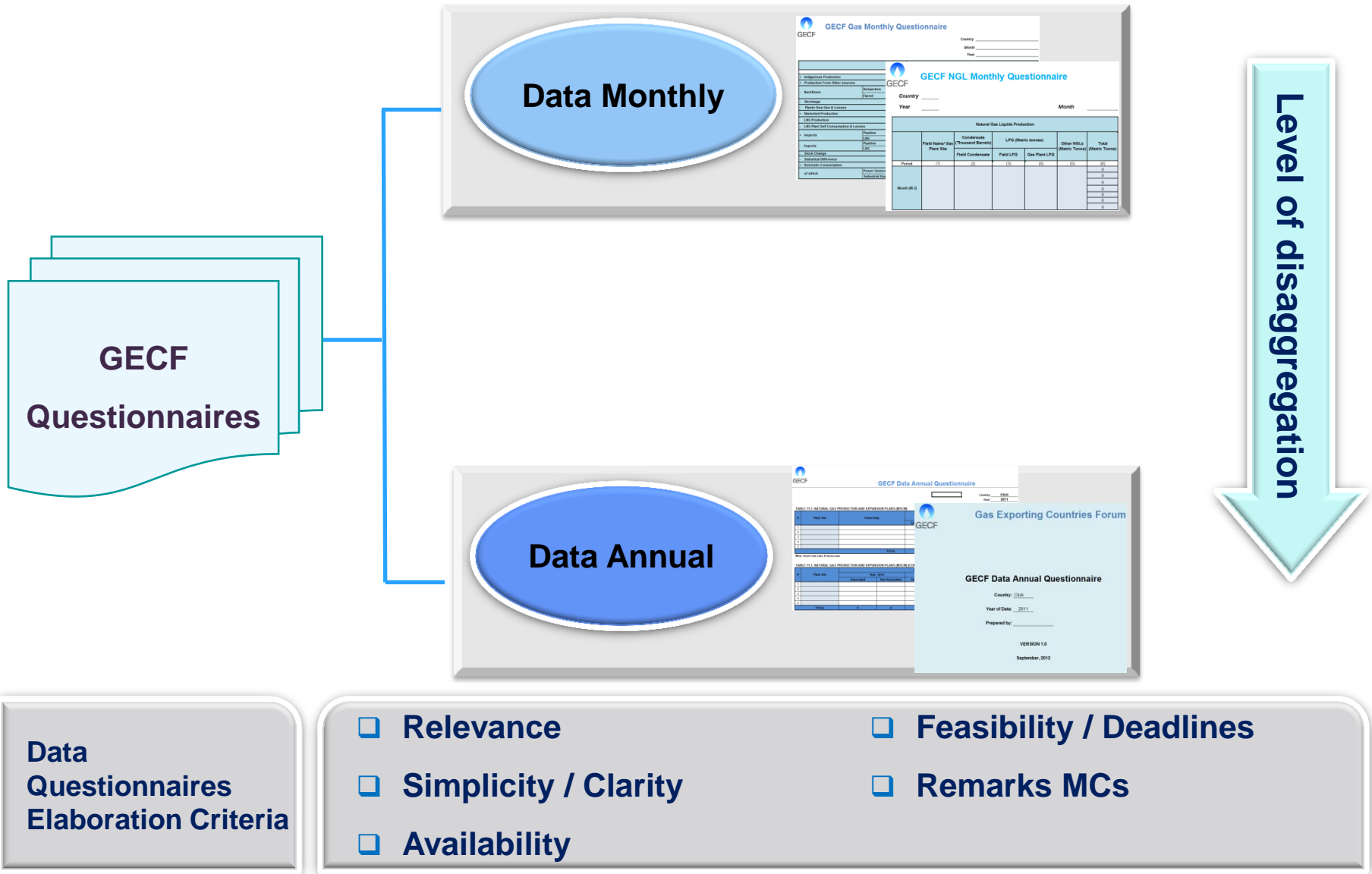


- Promote exchange of Data and enhance close coordination with GECF Member and Observer Countries.
- Define the reference framework to regulate the collection of Data, its consolidation and analysis.
- Identify a network of National Coordinators/Focal points for Data exchange with the GECF Secretariat.
- Define and clarify the role and responsibilities of the key players in the GECF reporting process.
- Formalize and standardize the concepts and procedures of dialogue and exchange of Data between the GECF Secretariat and the GECF Member and Observer Countries.
- Identify and approve Data categories to be exchanged between the GECF Secretariat and the GECF Member and Observer Countries.

GECF Reporting mechanism process

Management of Data in the GECF is shown in the below flow chart





JoDI-GAS Quest.

Production
Receipts from Other Sources
Imports
<i>LNG</i>
<i>Pipeline</i>
Exports
<i>LNG</i>
<i>Pipeline</i>
Stock Change
Gross Inland Deliveries (Calculated)
Statistical Difference (Calculated)
Gross Inland Deliveries Observed
<i>of which: Electricity and Heat Generation</i>
Closing stocks

Marketed
Production – From
Other Sources

GECF Quest.

Balance	
Indigenous Production	
	Associated
	Non-Associated
Production From Other sources	
Backflows	Reinjection
	Flared
Shrinkage	
Plants Own Use & Losses	
Marketed Production	
LNG Production	
LNG Plant Self Consumption & Losses	
Imports	Pipeline
	LNG
Exports	Pipeline
	LNG
Stock Change	
Statistical Difference	
Domestic Consumption	
of which by sector	Power Generation
	Heat Generation / Cooling
	Industrial Use
	Refineries
	Petrochemicals
	Domestic Sector

GECF DRM: Monthly Questionnaire (MQs) Sustainability*

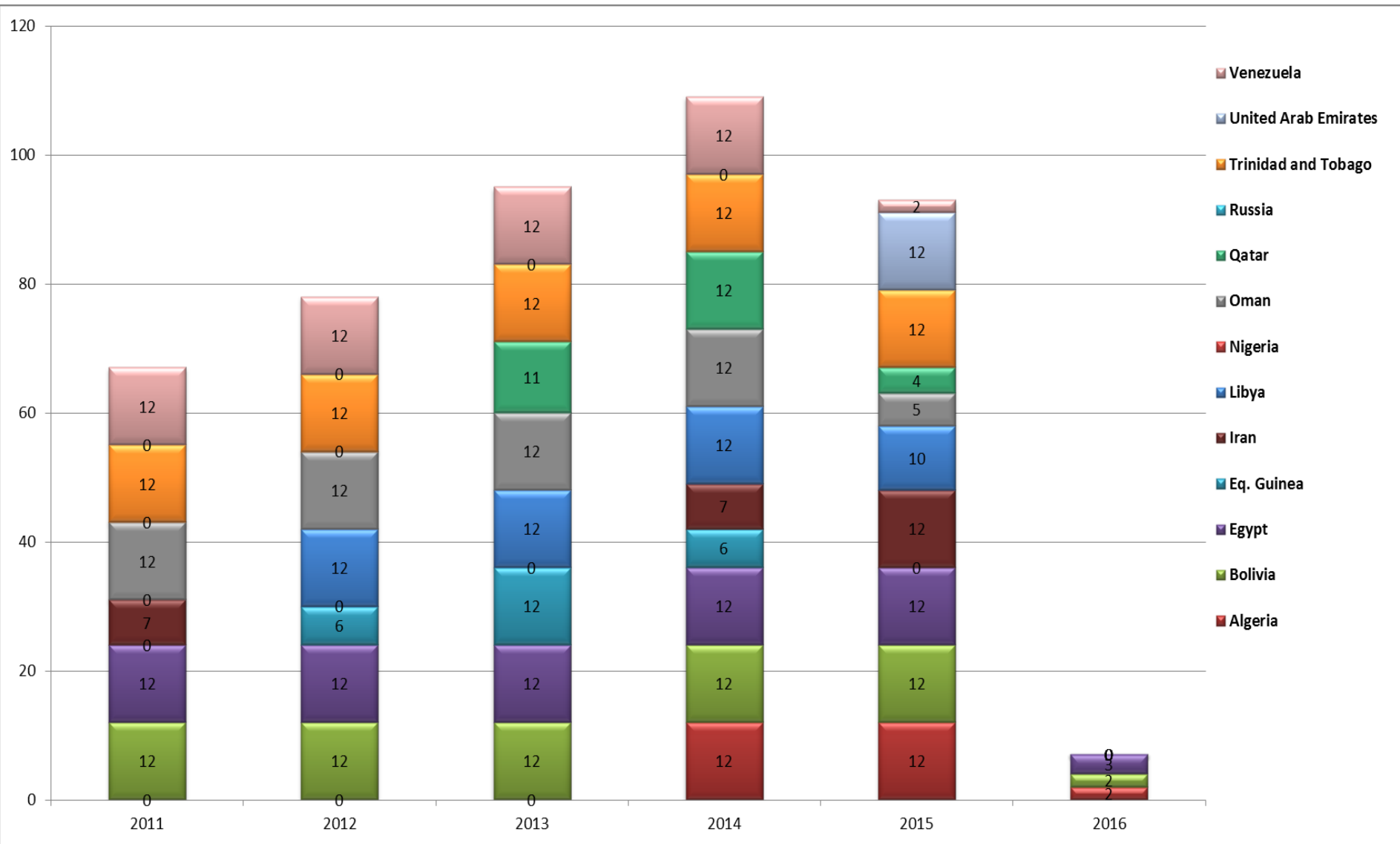
Year	Algeria	Bolivia	Egypt	Eq. Guinea	Iran	Libya	Nigeria	Oman	Qatar	Russia	Trinidad and Tobago	United Arab Emirates	Venezuela	Grand Total
2011	0	12	12	0	7	0	0	12	0	0	12	0	12	67
2012	0	12	12	6	0	12	0	12	0	0	12	0	12	78
2013	0	12	12	12	0	12	0	12	11	0	12	0	12	95
2014	12	12	12	6	7	12	0	12	12	0	12	0	12	109
2015	12	12	12	0	12	10	0	5	4	0	12	12	2	93
2016	2	2	3	0	0	0	0	0	0	0	0	0	0	7
Grand Total	26	62	63	24	26	46	0	53	27	0	60	12	50	449

Red	<= 25% of the expected questionnaires
Yellow	> 25% & < 75 % of the expected questionnaires
Green	> 75% of the expected questionnaires

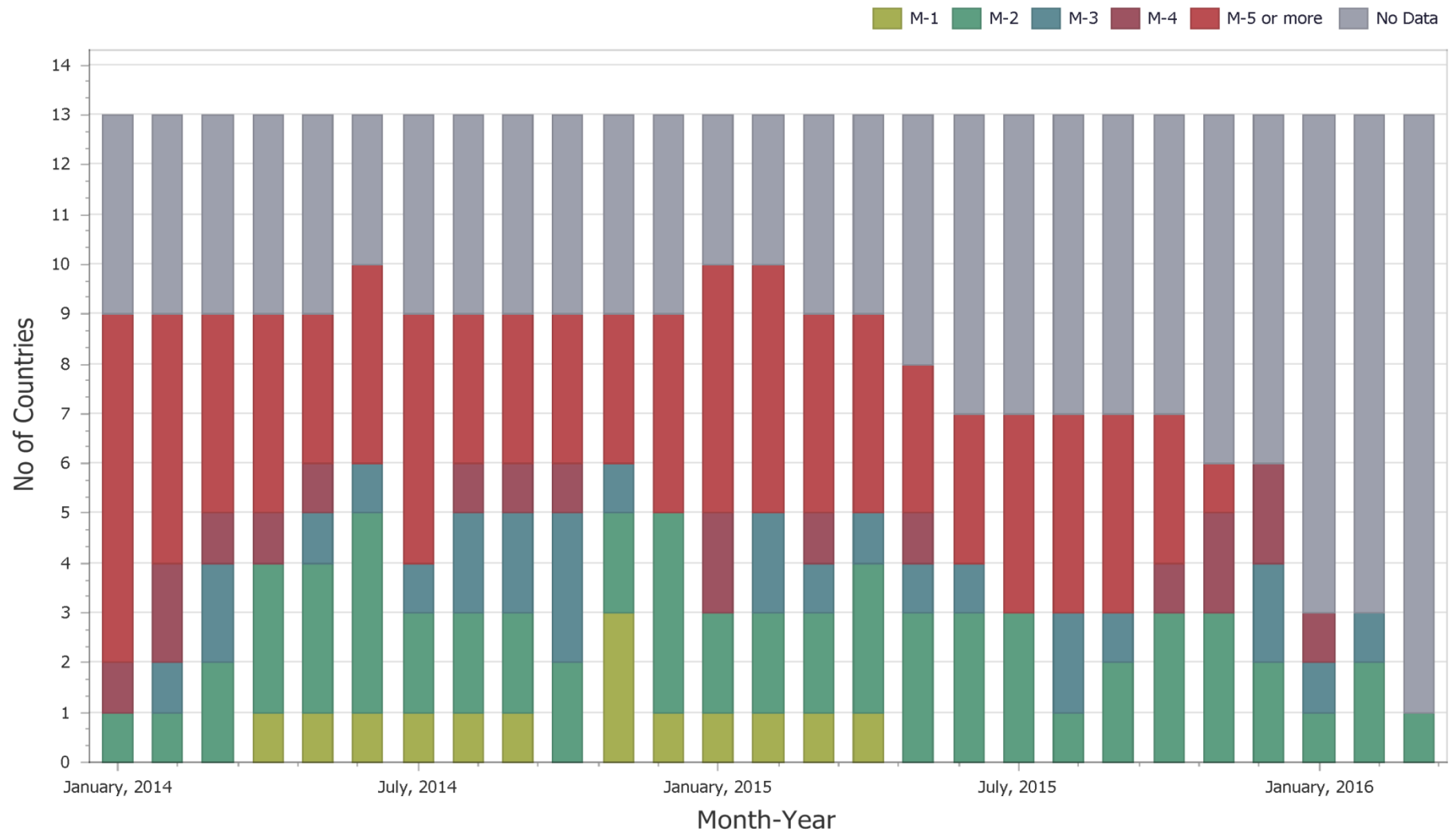
***Sustainability:** refers to the continuity of submitting monthly gas questionnaire data to GECF, regardless of the timeliness of submission or completeness of data.

Sustainability is measured as number of monthly questionnaires received from a country per year.

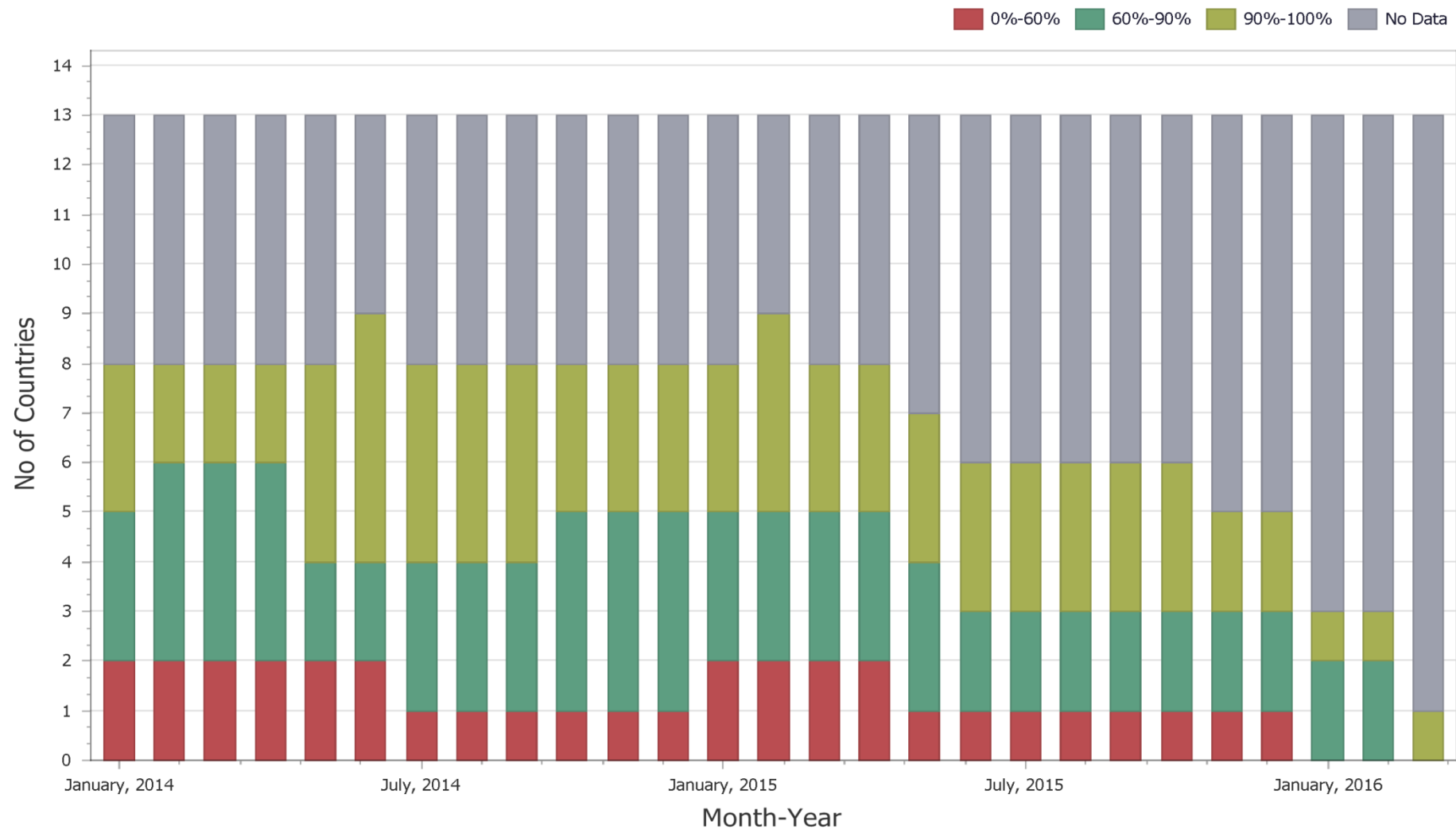
Quality Indicators : Sustainability of Submission



Timeliness



Completeness (GECF)










































Quality Indicators : Timeliness and Completeness

Data Quality Assessment				
Country	Country	Questionnaire	TimeLiness (Days)	Completeness (%)
Algeria	Egypt	2016 March	-9 ▼	92 ▲
Bolivia	Egypt	2016 February	-3 ▼	92 ▲
Egypt	Egypt	2016 January	-1 ▼	92 ▲
Iran	Egypt	2015 December	-1 ▼	92 ▲
Libya	Egypt	2015 November	0	92 ▲
Oman	Egypt	2015 October	0	92 ▲
Qatar	Egypt	2015 September	-1 ▼	92 ▲
	Egypt	2015 August	-2 ▼	92 ▲
	Egypt	2015 July	-14 ▼	92 ▲
	Egypt	2015 June	-11 ▼	92 ▲
	Egypt	2015 May	-12 ▼	92 ▲
	Egypt	2015 April	-13 ▼	92 ▲
	Egypt	2015 February	-1 ▼	92 ▲

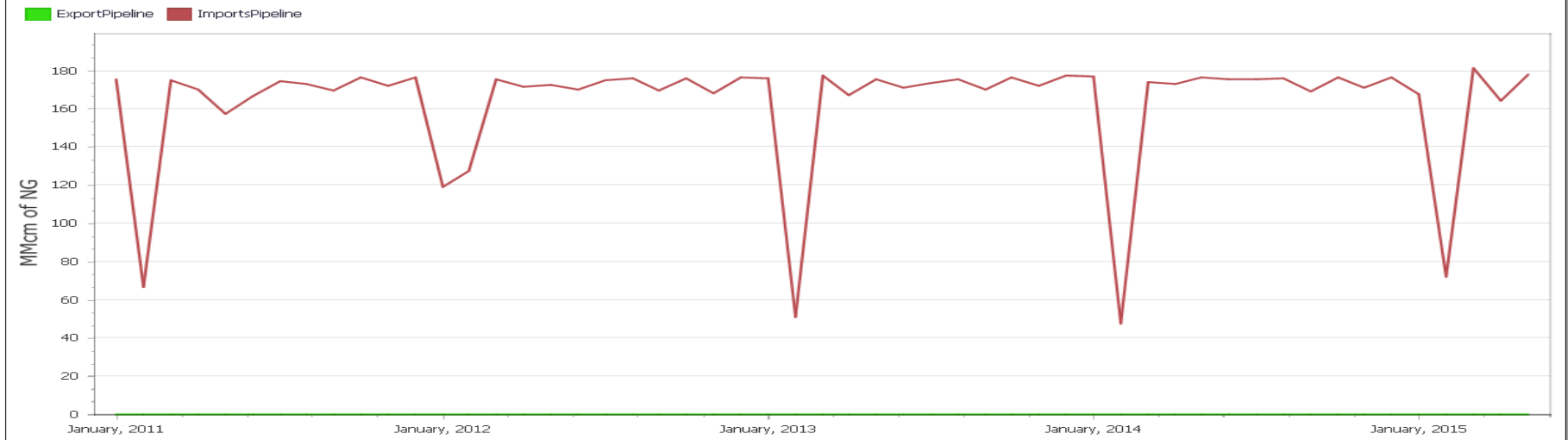
Participation Assessment _ Smiley Face Approach – July to Dec 2015

From July 2015 to December 2015

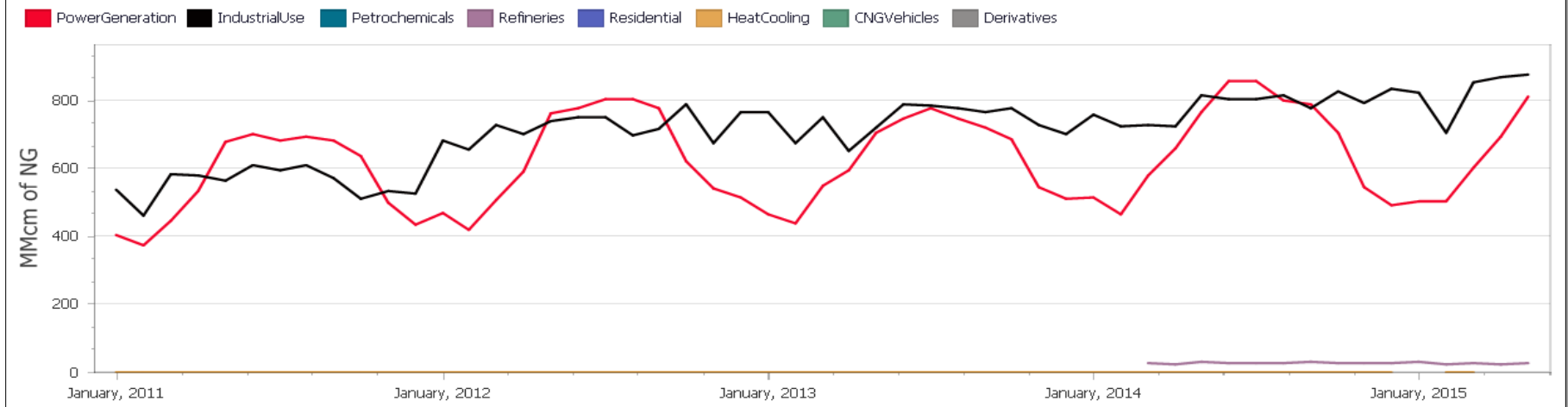
[for JoDI-Gas Monthly Questionnaire Format & M- 2]

Country	Sustainability	Timeliness	Completeness (%)	Sustainability	Timeliness	Completeness (%)
Algeria	6	5	77%			
Bolivia	6	3	77%			
Egypt	6	6	77%			
Eq. Guinea	0	0	0%			
Iran	0	0	0%			
Libya	4	0	77%			
Nigeria	0	0	0%			
Oman	0	0	0%			
Qatar	0	0	0%			
Russia	0	0	0%			
Trinidad and Tobago	6	0	77%			
United Arab Emirates	6	0	20%			
Venezuela	0	0	0%			

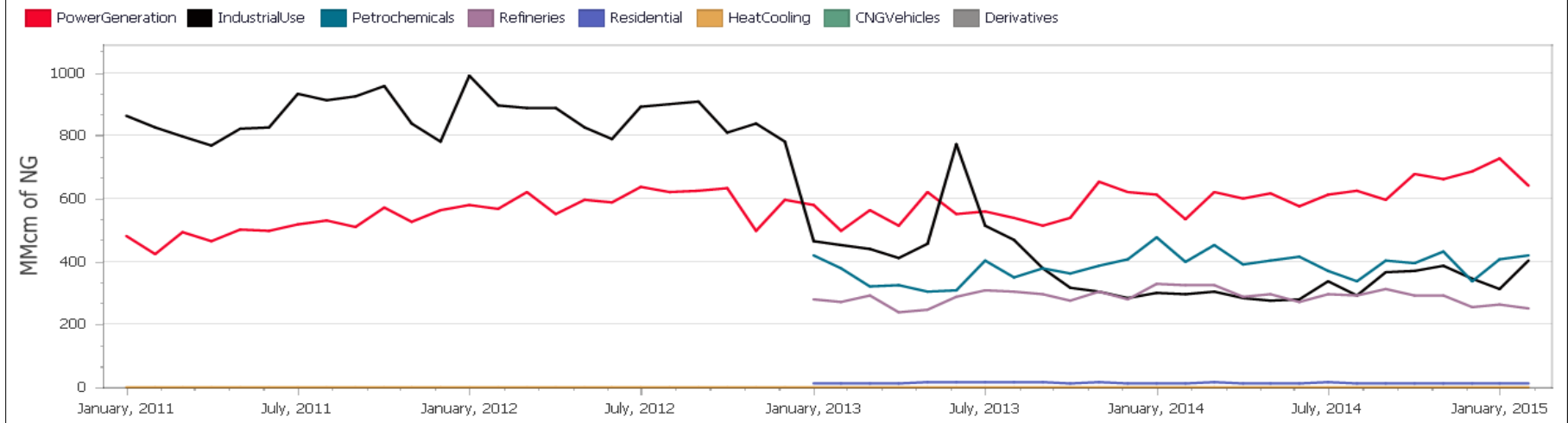
Oman PipeLine Import & Export



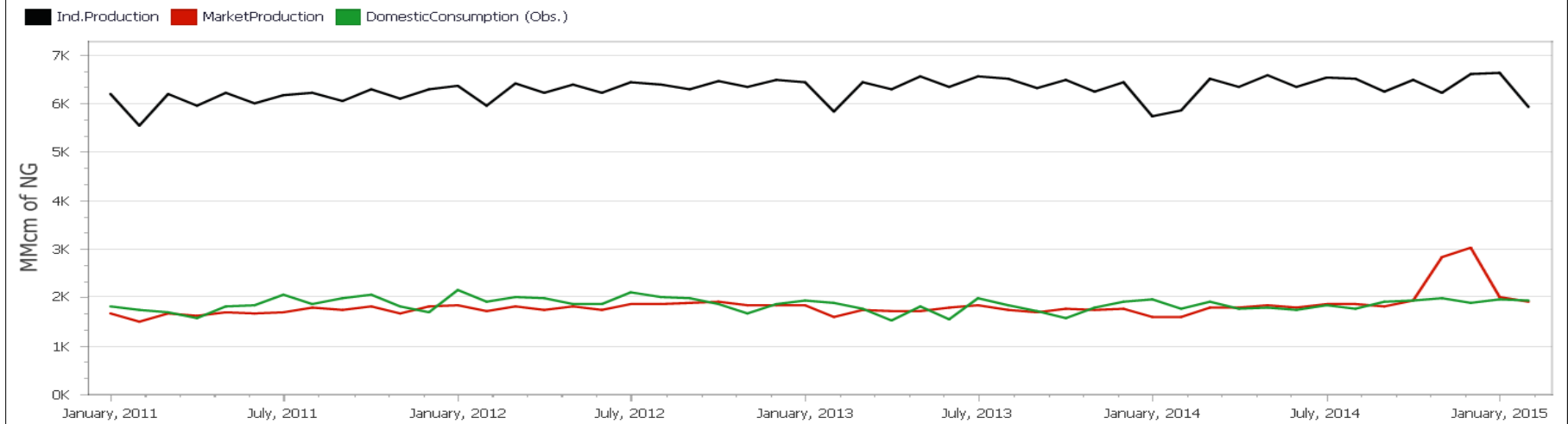
Oman Domestic Consumption By Sector



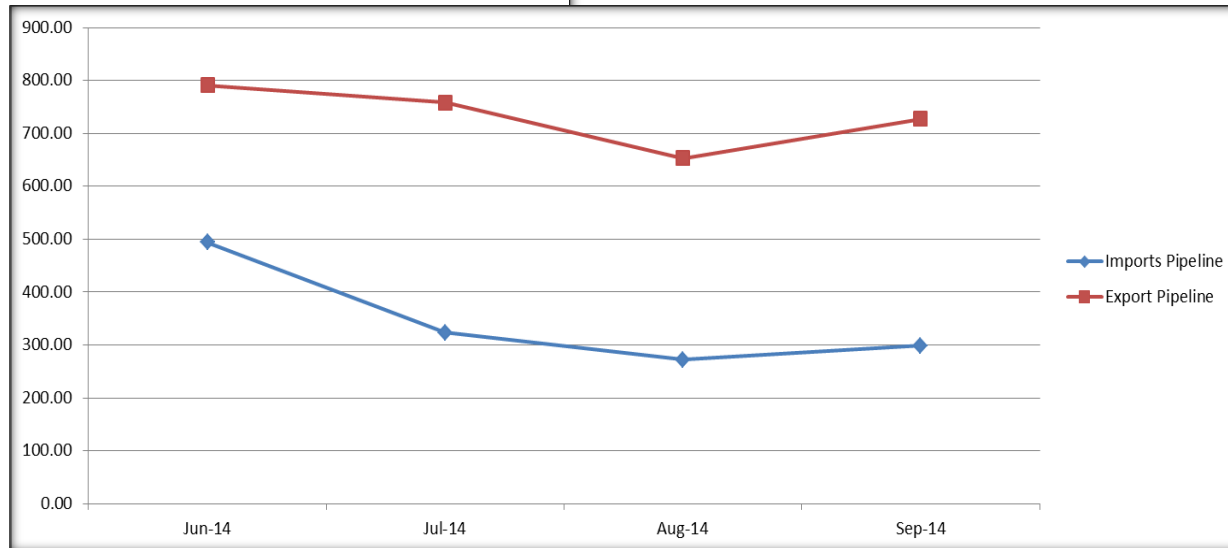
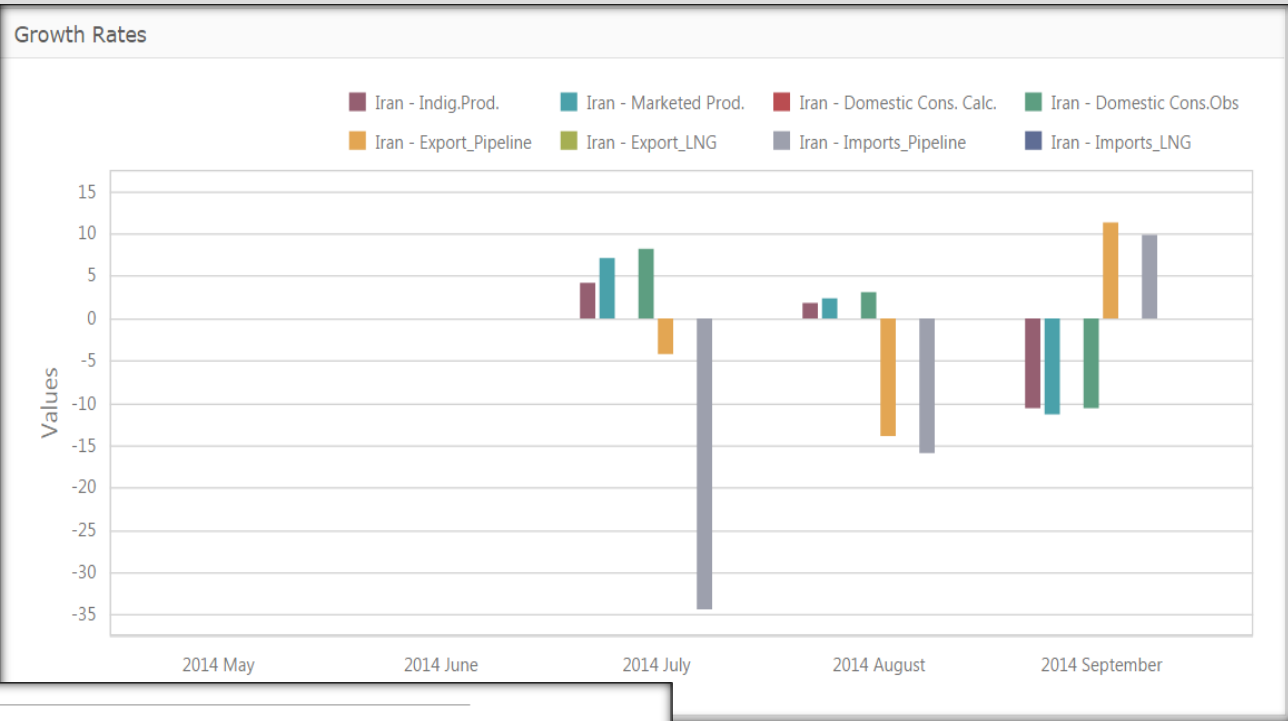
Domestic Consumption By Sector



Production & Consumption



Data Quality Visual Check : Monthly Growth Rate

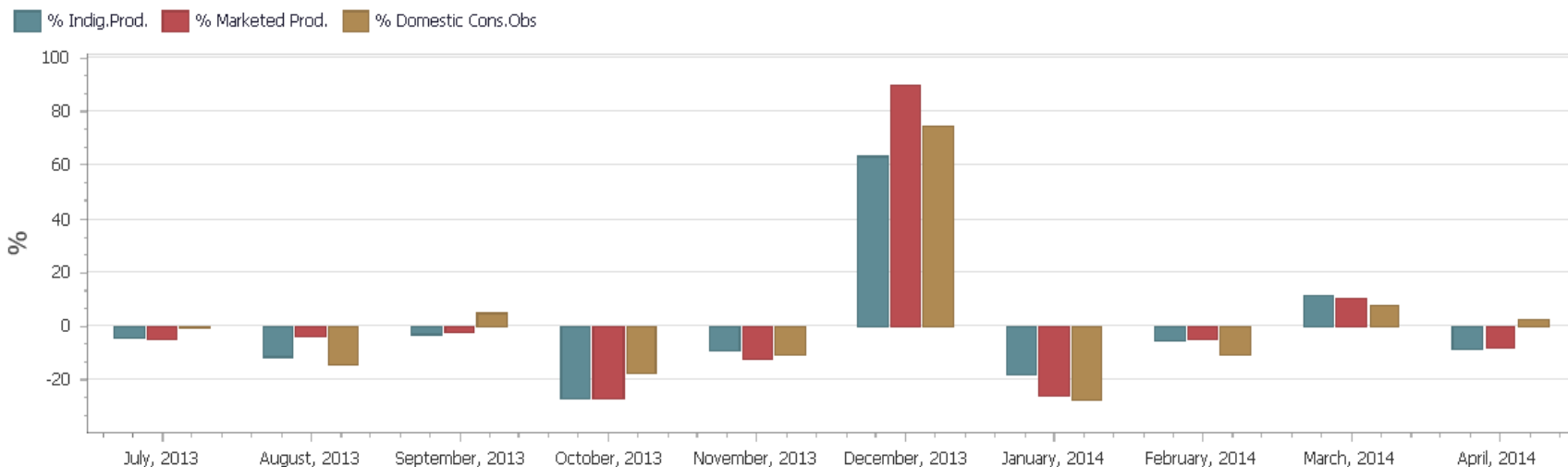




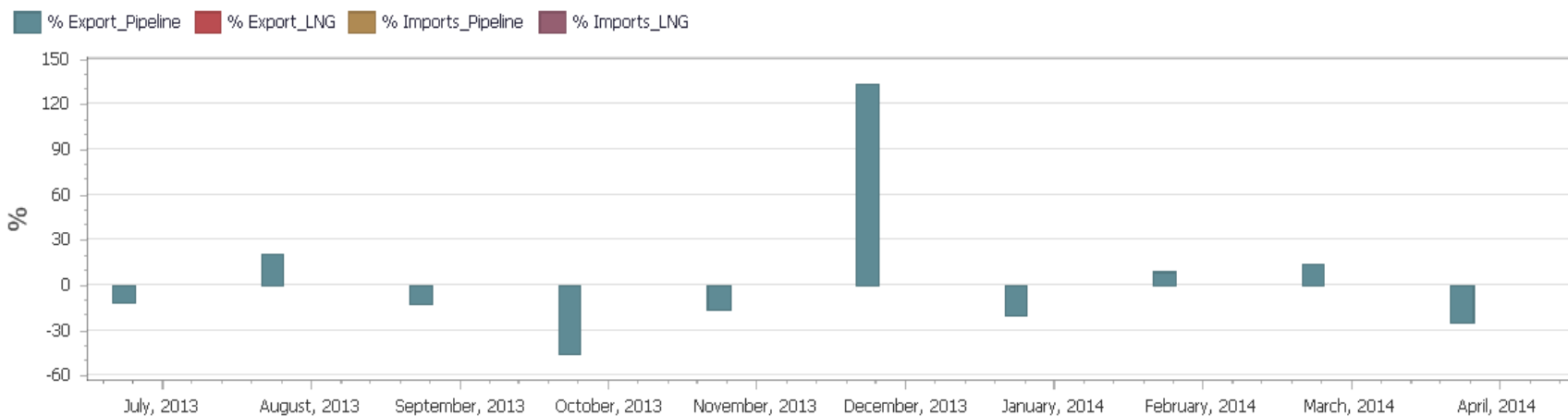
Data Quality Visual Check : Monthly Growth Rate

GECF

Monthly Growth Rates 1



Monthly Growth Rates 2

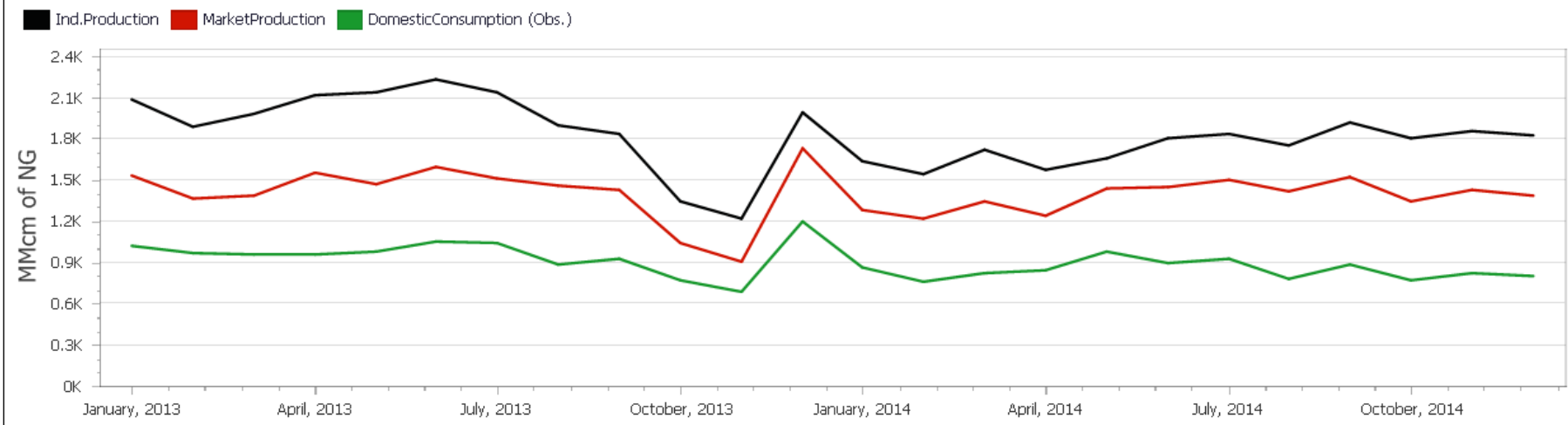




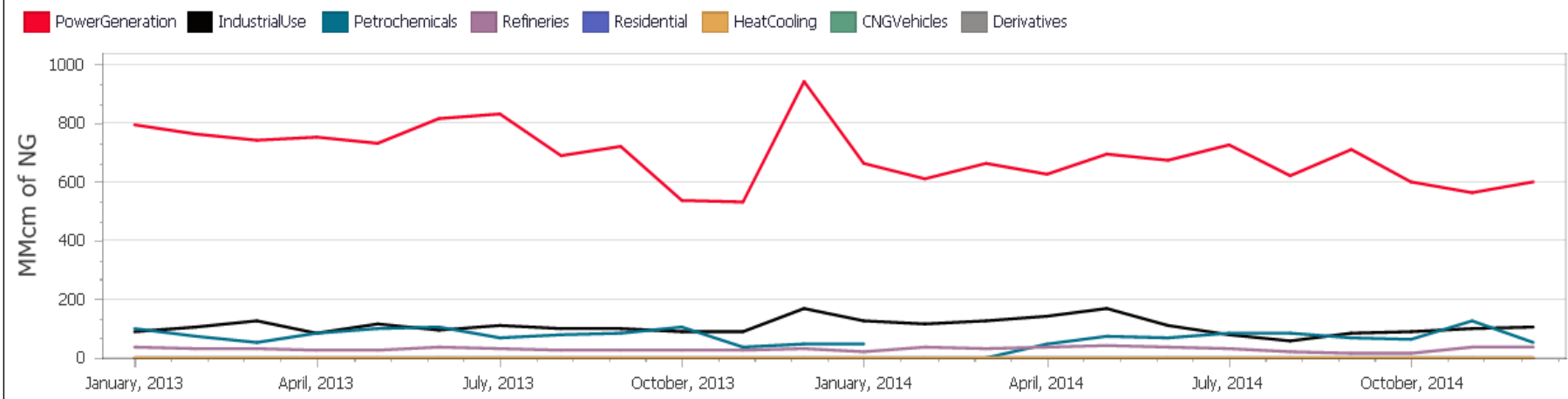
Data Quality Visual Check : Monthly Growth Rate

GECF

Production & Consumption



Domestic Consumption By Sector



**Thank You
for Your attention**

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- GECF participation in the JoDI-Gas Data initiative is being managed as part of the organization's **integrated Data Management Process**.
- **GECF Integrated Data Bank Platform**: Data Exchange Center (DEC), Daily News Brief Web and Mobile App, Energy databases / data sets, and other modules.
- **Data Exchange Center (DEC)** is the collaboration and communication database for GECF member countries' monthly and annual questionnaires.
- **Data Transparency**: all MCs have read access to data of other countries and related statistical analytical reports.
- Future plans to expand the Databank Platform.
- GECF Databank is being **developed in-house** by DISD staff.

GECF Monthly Questionnaire in DEC

Unified GECF monthly questionnaire and related products and flows definitions are in place.

New
Validate
Refresh
Clear Fields

Questionnaire - 1/1/2015 12:00:00 AM
[Country](#) / [MQ Short](#) / 1/1/2015 12:00:00 AM
Save
Sa

Questionnaire

Questionnaire Type:	GECF Month	Planned Submission Date:		Time Lines
Country:	Bolivia	Actual Submission Date:		Completen
MQ Date:	1/1/2015	Approval Date:		Data Conf
Status Type:	Planned	Revised Date:		
Unit_NG:		Revised Approval Date:		
Unit_LNG:				

Questionnaire Details

Indigenous Prod :		Clarification:	
Associa		Clarification:	
Non-Associated:		Clarification:	
From Other Resources:		Clarification:	
Reinjection:		Clarification:	
Flared:		Clarification:	
Shrinkage:		Clarification:	

Indigenous Production: Refers to Indigenous gross production of associated and non associated natural gas wet or dry (including shale gas) : Report all production within national boundaries including off-shore or on- shore excluding from Other sources.

A Focal Point can browse, group , search , filter , sort monthly questionnaire data of all GECF countries.

New	Edit	Refresh	View	MQ Short	Export to	Filter	Approved Questionnaires
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MQ Short

[Country](#) / MQ Short

Country	MQ Date	Indigenous Prod.	Reinjection	Flared	Shrinkage	Market Production	Imports Pipeline	Import LNG	Export Pipeline	Export LNG
Country: Bolivia (Count=15)										
Country: Egypt (Count=13)										
Country: Iran (Count=4)										
<input type="checkbox"/>	Sep 2014	18,437.40	2,743.20	894.00		14,676.90	298.80	0.00	727.20	0.00
<input type="checkbox"/>	Aug 2014	20,641.35	2,971.97	988.59		16,545.63	272.18	0.00	653.00	0.00
<input type="checkbox"/>	Jul 2014	20,283.61	3,061.87	908.92		16,177.35	323.80	0.00	757.95	0.00
<input type="checkbox"/>	Jun 2014	19,481.70	3,436.80	826.50		15,097.20	493.80	0.00	790.80	0.00
Country: Libya (Count=12)										
Country: Oman (Count=12)										
Country: Trinidad and Tobago (Count=4)										
Country: Venezuela (Count=11)										

Page 1 of 1 (11 items) 1

DEC data Accessibility: Simple and Advanced Filter

Filter by one or more columns

MQ Short

Country / MQ Short

Drag a column header here to group by that column

	MQ Date	Country	Indigenous Prod.	Reinjection	Flare
	Jan 2015	Bolivia			
	Dec 2014	Bolivia			
	Nov 2014	Bolivia			
	Oct 2014	Bolivia			
	Sep 2014	Bolivia			
	Aug 2014	Bolivia			
	Jul 2014	Bolivia			
	Jun 2014	Bolivia	1,879,574,792.00		17,58
	May 2014	Bolivia	1,956,979,799.84	0.00	17,05

Filter dropdown for Country:

- (All)
- (Blanks)
- (Non blanks)
- Bolivia
- Egypt
- Iran
- Libya
- Oman
- Trinidad and Tobago
- Venezuela

Build a complex query with several conditions

MQ Short

Country / MQ Short

Drag a column header here to group by that column

	MQ Date	Country	Indigenous Prod.	Reinjection	Flared	Shrin
	Jan 2015	Bolivia	1,860.46		15.29	
	Dec 2014	Bolivia				
	Nov 2014	Bolivia				
	Oct 2014	Bolivia				
	Sep 2014	Bolivia				
	Aug 2014	Bolivia				
	Jul 2014	Bolivia				
	Jun 2014	Bolivia				

Filter Builder

And

- Country Is any of (Oman, Egypt, Bolivia)
- MQ Date Is greater than or equal to Jan 2014
- Status Type Equals Approved

OK Cancel

Export data into different file formats including **Excel**.

New

Delete

Edit

Refresh

View

MQ Short

Export to

Filter

Approved Questionnaires

MQ Short

Country / MQ_2 / MQ_1 / MQ Short

Drag a column header here to group by that column

		Country	MQ Date	Indigenous Prod.	Reinjection	Flared	Plan Own Use and Loss	Market Production	Imports Pipeline	Import LNG	Export Pipeline	Export LNG	Stock Change	Statistical Difference	Domestic Consumption (Calculated)	Domestic Consumption (Observed)	Quest Type
		Bolivia	Jan 2015	1,860.46		15.29					1,497.85				0.00	304.15	GECF
		Bolivia	Dec 2014	1,838.00		13.24					1,451.27				0.00	327.36	GECF
		Oman	Dec 2014	2,974.72	231.18	131.68	275.94	2,335.93	176.61			772,171.00			0.00		GECF
		Venezuela	Nov 2014	6,232.00	2,260.00	1,152.00		2,820.00	90.00					-107.00	0.00	1,974.00	GECF
		Bolivia	Nov 2014	1,735.00		12.65	25.77	1,680.97			1,352.14				0.00	326.46	GECF
		Oman	Nov 2014	2,901.47	228.45	95.32	302.42	2,275.27	171.14			765,562.00			0.00		GECF
		Venezuela	Oct 2014	6,495.00	2,211.00	1,297.00	901.00	1,943.00	52.00					59.00	0.00	1,935.00	GECF
		Bolivia	Oct 2014	1,882.00		15.01	27.85	1,822.85			1,480.99				0.00	335.06	GECF
		Oman	Oct 2014	3,128.85	261.55	120.42	294.01	2,452.88	176.60			649,549.00			0.00		GECF
		Venezuela	Sep 2014	6,253.00	2,200.00	1,264.00	831.00	1,820.00	67.00					-20.00	0.00	1,908.00	GECF
		Oman	Sep 2014	3,047.08	260.96	151.23	301.78	2,333.11	168.91			644,637.00			0.00		GECF
		Iran	Sep 2014	18,437.40	2,743.20	894.00	123.30	14,676.90	298.80	0.00	727.20	0.00	-1.00		0.00	13,266.00	GECF
		Bolivia	Sep 2014	1,855.01		18.55	26.91	1,792.97			1,453.10				0.00	334.48	GECF
		Iran	Aug 2014	20,641.35	2,971.97	988.59	135.16	16,545.63	272.18	0.00	653.00	0.00	0.80		0.00	14,849.00	GECF
		Oman	Aug 2014	3,213.19	238.20	147.61	310.82	2,516.56	176.04			638,491.00			0.00		GECF
		Venezuela	Aug 2014	6,507.00	2,084.00	1,537.00	875.00	0.00	55.00					152.00	0.00	1,767.00	GECF
		Bolivia	Aug 2014	1,926.83		22.54	28.05	1,858.98			1,517.24				0.00	337.81	GECF
		Iran	Jul 2014	20,283.61	3,061.87	908.92	135.47	16,177.35	323.80	0.00	757.95	0.00	-1.74		0.00	14,401.05	GECF
		Oman	Jul 2014	3,222.80	251.81	141.59	324.99	2,504.41	175.34			582,366.00			0.00		GECF
		Venezuela	Jul 2014	6,537.00	2,012.00	1,500.00	915.00	0.00	39.00					63.00	0.00	1,835.00	GECF

CSV File

HTML File

Image File

MHT File

PDF File

RTF File


Text File

XLS File

XLSX File

Monthly Questionnaire: Excel and DEC

MC Focal Point can fill the monthly questionnaire template in Excel file or directly update the web-based Data Exchange Center (DEC).



Gas Monthly Questionnaire

Balance		Natural Gas	
	Amount	Metric Unit	
Indigenous Production		4.47	Bcm
	Associated	0.33	Bcm
	Non-Associated	4.14	Bcm
Production From Other sources			Not Applicable
Backflows	Reinjection	0.14	Bcm
	Flared	0.06	Bcm
Shrinkage		0.05	Bcm
Plants Own Use & Losses		0.18	Bcm
Marketed Production		4.04	Bcm
LNG Production		0.02	Bcm
LNG Plant Self Consumption & Losses		0.00	Bcm
Imports	Pipeline		Not Applicable
	LNG		Not Applicable
Exports	Pipeline		Not Available
	LNG	0.00	Bcm
Stock Change		0.03	Bcm
Statistical Difference			Bcm
Domestic Consumption		4.01	Bcm
of which by sector	Power Generation	2.45	Bcm
	Heat Generation / Cooling		Not Applicable
	Industrial Use	0.94	Bcm
	Refineries	0.16	Bcm
	Petrochemicals	0.12	Bcm
Domestic Sector		0.17	Bcm

Questionnaire

[Country / MQ Short / Questionnaire](#)

Questionnaire

Questionnaire Type: GECF Monthly

Country: Bolivia

MQ Date: 12/1/2014

Status Type: Planned

Unit_NG:

Unit_LNG:

Planned Submission Date:

Actual Submission Date:

Approval Date:

Revised Date:

Revised Approval Date:

Time Liness:

Completeness:

Data Confidence:

Questionnaire Details

Indigenous Prod.:		Clarification:	
Associated:		Clarification:	
Non-Associated:		Clarification:	
From Other Resources:		Clarification:	
Reinjection:		Clarification:	
Flared:		Clarification:	
Shrinkage:		Clarification:	
Plants Own Use and Losses:		Clarification:	
Marketed Production:	0	Clarification:	
LNG Production:		Clarification:	
LNG Self Consumption:		Clarification:	
Imports Pipeline:		Clarification:	
Import LNG:		Clarification:	
Export Pipeline:		Clarification:	
Export LNG:		Clarification:	

Questionnaire

[Country](#) / [MQ Short](#) / Questionnaire

[Save](#) [Save and Close](#) [Sa](#)

Questionnaire

Questionnaire Type: Planned Submission Date: Time Lines:

Country: Actual Submission Date: Completeness:

MQ Date: Approval Date: Data Confidence:

Status Type: Revised Date:

Unit_NG: Revised Approval Date:

Unit_LNG:

Questionnaire Details

Indigenous Prod.: Clarification:

Associated: Clarification:

Non-Associated: Clarification:

From Other Resources: Clarification:

Reinjection: Clarification:

Flared: Clarification:

Shrinkage: Clarification:

Plants Own Use and Losses: Clarification:

Market Production: Clarification:

LNG Production: Clarification:

LNG Self Consumption: Clarification:

Imports Pipeline: Clarification:

Import LNG: Clarification:

Export Pipeline: Clarification:

Export LNG: Clarification:

Stock Change: Clarification:

Attached File:

Validation Rule

[Country](#) / [MQ Short](#) / Validation Rule

Country	Questionnaire Type	Data Point	Is Required?	From Date	To Date
Country: Algeria (Count=6)					
Country: Bolivia (Count=13)					
Questionnaire Type: GECF Monthly (Count=13)					
<input type="checkbox"/>		DomesticConsumptionHeatCooling	NA	1/1/2011	
<input type="checkbox"/>		ExportLNG	NA	1/1/2011	
<input type="checkbox"/>		ExportPipeline	Yes	1/1/2011	
<input type="checkbox"/>		FromOtherResources	NA	1/1/2011	
<input type="checkbox"/>		ImportLNG	NA	1/1/2011	
<input type="checkbox"/>		ImportsPipeline	NA	1/1/2011	
<input type="checkbox"/>		IndigenousProduction	Yes	1/1/2011	
<input type="checkbox"/>		IndustrialUse	Yes	1/1/2011	
<input type="checkbox"/>		MarketProduction	Yes	1/1/2011	
<input type="checkbox"/>		PlantsOwn	Yes	1/1/2011	
<input type="checkbox"/>		PowerGeneration	Yes	1/1/2011	
<input type="checkbox"/>		Reinjection	NA	1/1/2011	
<input type="checkbox"/>		Shrinkage	Yes	1/1/2011	
Country: Egypt (Count=10)					
Country: Eq. Guinea (Count=9)					
Country: Iran (Count=14)					
Country: Libya (Count=13)					

Page 1 of 2 (27 items) [1](#) [2](#) Page size: 20

DEC Data Quality: Country Specific Data Entry Validation Rules

Problems were detected during data validation. Please read the information

- ✖ 1/1/2015 12:00:00 AM
 - Combination of the following properties must be unique: Country, Q
- ⚠ 1/1/2015 12:00:00 AM
 - "Export Pipeline" must not be empty.
 - "Indigenous Prod." must not be empty.
 - "Industrial Use" must not be empty.
 - "Market Production" must be less than "IndigenousProduction".
 - "Power Generation" must not be empty.

Questionnaire

Questionnaire Type:	✖ GECF Mont	Plan
Country:	✖ Bolivia	Actu
MQ Date:	✖ 1/1/2015	Appr
Status Type:	Planned	Revi
Unit_NG:		Revi
Unit_LNG:		

Questionnaire Details

Indigenous Prod.:	⚠	
Associated:		
Non-Associated:		
From Other Resources:		
Reinjection:		
Flared:		
Shrinkage:		
Plants Own Use and Losses:		
Market Production:	⚠	0