

**Louisville Gas & Electric and Kentucky  
Utilities Company**

**Spring 2016 Stakeholders Meeting**

**ITO Operations Report**

**Larry Monday, Manager Tariff Services**

Hyatt Regency, Louisville, Kentucky

July 21, 2016

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# Summary of Operations

- For the Period of November 2015 to May 2016
- Transmission Service Metrics
  - *Summary by Action*
  - *Summary by Point of Delivery (POD)*
  - *Summary by Service Type*
- Open Access Technology International, Inc. (OATI) webTrans and Open Access Same-Time Information System (OASIS) changes
- Summary of electronic tag actions
- Snapshot of a recent monthly Available Transfer Capability (ATC) posting

# Summary of Operations (Continued)

- Independent Transmission Organization (ITO)  
Issue summary since last meeting
- Federal Energy Regulatory Commission (FERC)  
Semi-Annual Report Operations Summaries
- Update and Implementation Schedule for Network  
Integration Transmission Service (NITS)  
implementation on OASIS

# Transmission Service Metrics by Action

Transmission Service Metrics by Action November 2015 through May 2016				
	Non-Affiliate	%	Affiliate	%
<b>APPROVED</b>	<b>643</b>	<b>89.1%</b>	<b>819</b>	<b>96.2%</b>
Accepted-Confirmed	556		782	
Counteroffer-Confirmed	3		6	
Customer-Withdrawn	46		22	
Provider-Superseded	0		0	
Provider-Declined	0		0	
Provider-Retracted	38		7	
Provider-Annulled	0		2	
Provider-Displaced	0		0	
<b>DENIED</b>	<b>57</b>	<b>7.9%</b>	<b>30</b>	<b>3.5%</b>
Invalid	40		21	
Refused	10		9	
Declined	7		0	
Superseded	0		0	
<b>WITHDRAWN</b>	<b>16</b>	<b>2.2%</b>	<b>1</b>	<b>0.1%</b>
<b>RECEIVED</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0.0%</b>
<b>TSR STUDY QUEUE</b>	<b>9</b>	<b>1.2%</b>	<b>3</b>	<b>0.3%</b>
Put in Queue During Period	9		3	
In Queue from Previous Periods	0		0	
<b>Total</b>	<b>722</b>		<b>851</b>	

# Transmission Service Metrics by POD

Transmission Metrics Per Path November 2015 through May 2016					
POD	TOTAL	APPROVED	DENIED	WITHDRAWN	STUDY/RECEIVED
EEI	0	0	0	0	0
LGEE	223	178	35	1	12
MISO	331	324	2	5	0
OMU	78	59	17	2	0
OVEC	0	0	0	0	0
PJM	890	855	28	9	0
TVA	51	46	5	0	0
<b>TOTAL</b>	<b>1573</b>	<b>1462</b>	<b>87</b>	<b>17</b>	<b>12</b>

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# Transmission Service Metrics by Type

Transmission Metrics Per Service Type November 2015 through May 2016					
Service Type	TOTAL	APPROVED	DENIED	WITHDRAWN	STUDY/RECEIVED
Yearly Firm	29	9	13	1	11
Monthly Firm	21	20	0	0	1
Weekly Firm	12	5	7	0	0
Daily Firm	32	26	6	0	0
Monthly Non-Firm	0	0	0	0	0
Weekly Non-Firm	0	0	0	0	0
Daily Non-Firm	29	28	1	0	0
Hourly Non-Firm	1365	1296	54	15	0
Hourly Secondary	85	78	6	1	0
<b>Total</b>	<b>1573</b>	<b>1462</b>	<b>87</b>	<b>17</b>	<b>12</b>

# OATI webTrans Changes

- OATI webTrans changes during the period
  - *Updated ratings as requested by Louisville Gas & Electric and Kentucky Utilities Services Company (LG&E and KU)*
  - *Updated TRM and CBM values for OMU Flowgates for #1095, #2822, #2971, and #2973 as requested by Owensboro Municipal Utilities (OMU)*
  - *Flowgate Transmission Reserve Margin (TRM) and Capacity Benefit Margin (CBM) updated*
  - *Removed LG&E and KU flowgates (2198, 2274, 2297, 2500, 2874, 2949, 2971, 91013, 91040, 91041, 91054, 91147, 91153, 91156, 91157, and 91158) as posted on the OASIS*
  - *Added 37 new LG&E and KU flowgates; list posted on OASIS*

# OASIS Changes

- OASIS changes during the period
  - *Posted Transmission Rates as requested by the Transmission Owner (TO)*
  - *Posted previous LG&E and KU load data under System Data*
  - *Posted new System Operating limits Methodology (SOL) Document in LG&E and KU OASIS*
  - *Posted an updated Operational LG&E and KU Open Access Transmission Tariff (OATT) document*
  - *Posted Preliminary 2016 Transmission Expansion Planning (TEP) Document in LG&E and KU OASIS*
  - *Posted 2016 Economic Planning Studies form in LG&E and KU OASIS*
  - *Posted updated LG&E and KU, KMPA & EKPC Designated Network Resource (DNR) list*



# OASIS Changes (Continued)

- *Posted Semi-Annual Report Statistics in LG&E and KU OASIS*
- *Posted FERC Filing & OATT Amendment / ER16-1187-000 in LG&E and KU OASIS*
- *Posted GIC, DNR and NITS capacity values in LG&E and KU OASIS*
- *Posted 2016 spring Stakeholder meeting information documents in LG&E and KU OASIS*
- *Posted 2016 spring Stakeholder minutes information documents in LG&E and KU OASIS*
- *Posted the LG&E list of Studies that is available on request is posted in LG&E and KU OASIS*
- *Posted Network integration Transmission Service (NITS) Application in LG&E and KU OASIS*
- *Posted notices for Clustering Window opening*

# OASIS Changes (Continued)

- *Posted a proposed version of the LG&E and KU Business Practice for comments*
- *Posted the queue Economic Planning Studies*
- *Posted the queue for Transmission Needs Driving by Public Requirements*

# Summary of Electronic Tag Actions

Tag Statistics Provided by OATI webTag System								
<b>Aggregate Type:</b>	November 2015 Through May 2016							
<b>Time Zone:</b>	EST							
<b>Requests visible to</b>								
Company	Type	Creation	Curtailment	Adjustment/Extension	Cancellation	Reload	Termination	Company Totals
LGEE	TSP	3452	163	6816	61	11	22	10525
<b>Requests actively approved by</b>								
Company	Type	Creation	Curtailment	Adjustment/Extension	Cancellation	Reload	Termination	Company Totals
LGEE	TSP	3445	0	6771	60	0	22	10298
<b>Requests actively denied by</b>								
Company	Type	Creation	Curtailment	Adjustment/Extension	Cancellation	Reload	Termination	Company Totals
LGEE	TSP	5	0	41	1	0	0	47
<b>Requests Approval Expiration For</b>								
Company	Type	Creation	Curtailment	Adjustment/Extension	Cancellation	Reload	Termination	Company Totals
LGEE	TSP	2	0	4	0	0	0	6
<b>ATF Requests visible to</b>								
Company	Type	Creation	Curtailment	Adjustment/Extension	Cancellation	Reload	Termination	Company Totals
LGEE	TSP	0	0	2	0	0	0	2

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Visible-type tags that required no action by the TO, and instead required only action by the RC.

# Snapshot of Monthly Export ATC

## Percentage of Time Monthly Firm Available for Export

Source – June 24, 2016 ATC Posting

Export Source	EEI	LGEE	MISO	OMU	OVEC	PJM	TVA
BLGR	NA	53%	53%	29%	53%	53%	0%
EEI	NA	0%	NA	0%	0%	0%	NA
KMPA	NA	0%	0%	0%	0%	0%	82%
LGEE	0%	82%	53%	29%	53%	53%	0%
MISO	NA	59%	NA	76%	53%	NA	35%
OMU	12%	29%	35%	NA	35%	29%	12%
OVEC	29%	94%	76%	71%	NA	NA	29%
PJM	0%	88%	NA	35%	NA	NA	0%
TVA	82%	76%	53%	76%	53%	53%	NA

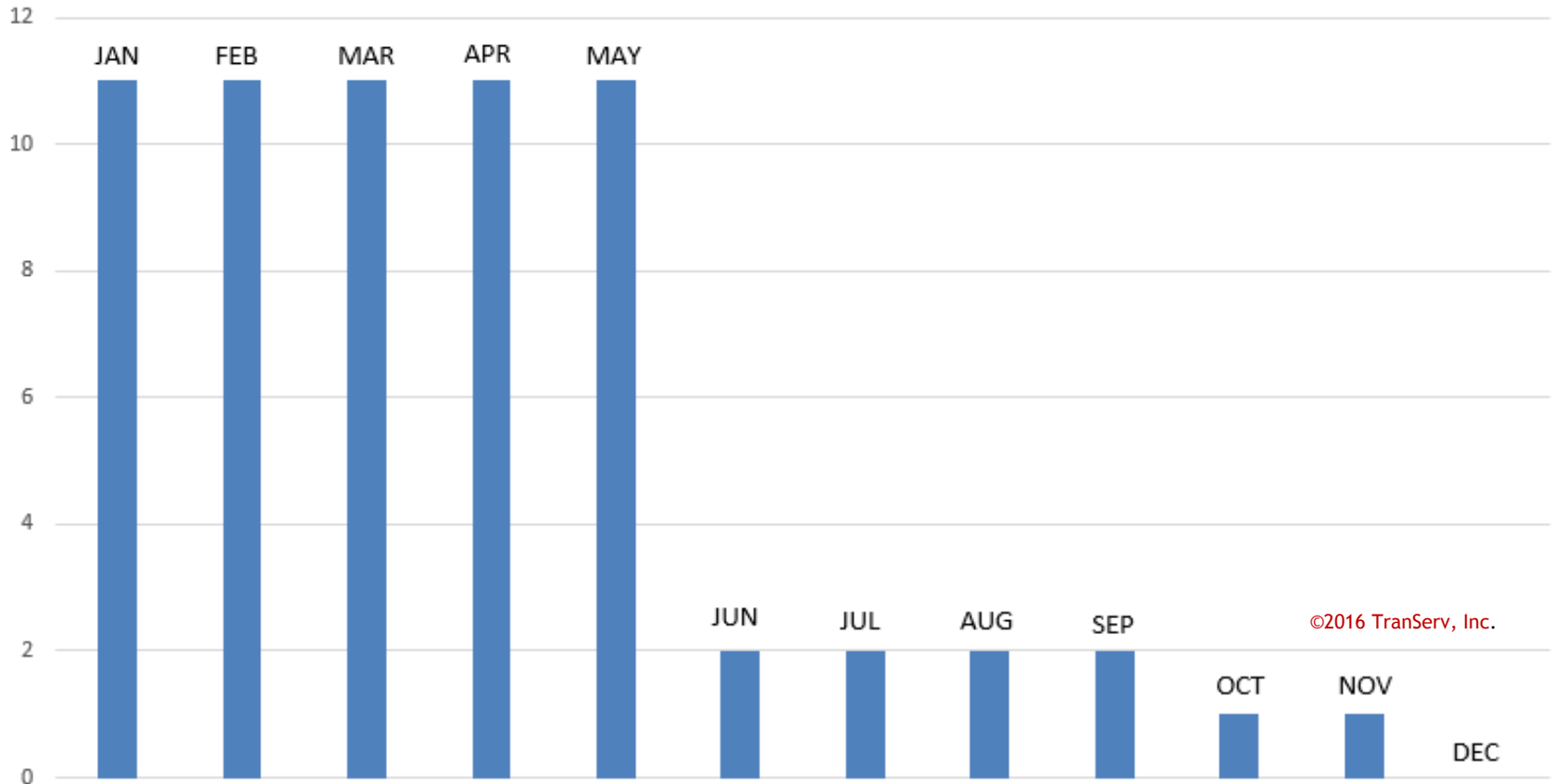
## Percentage of Time Monthly Firm Available for Export

Source – October 30, 2015 ATC Posting

Export Source	EEI	LGEE	MISO	OMU	OVEC	PJM	TVA
BLGR	NA	53%	76%	53%	76%	76%	35%
EEI	NA	0%	NA	18%	12%	18%	NA
KMPA	NA	6%	53%	59%	6%	47%	59%
LGEE	35%	76%	76%	65%	76%	65%	41%
MISO	NA	59%	NA	94%	NA	NA	100%
OMU	41%	35%	76%	NA	53%	29%	41%
OVEC	88%	94%	88%	88%	NA	NA	88%
PJM	76%	94%	NA	76%	NA	NA	53%
TVA	100%	94%	76%	100%	76%	76%	NA

# Snapshot of Export Capacity

Export Paths Available In 2017 Per Month for MISO and PJM



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# Snapshot of Monthly Import ATC

## Percentage of Time Monthly Firm Available for Import to Network Load

Source – June 24, 2016 ATC Posting

Network Load	Bluegrass	EEI	KMPA	LGEE	MISO	OMU	OVEC	PJM	TVA
EKPC[PJM]	53%	0%	0%	53%	0%	29%	0%	0%	53%
LGEE/KMPA/BEN	53%	0%	0%	82%	59%	29%	94%	88%	76%
OMU	29%	0%	0%	29%	76%	0%	71%	35%	76%
TVA	0%	0%	82%	0%	35%	12%	29%	0%	0%

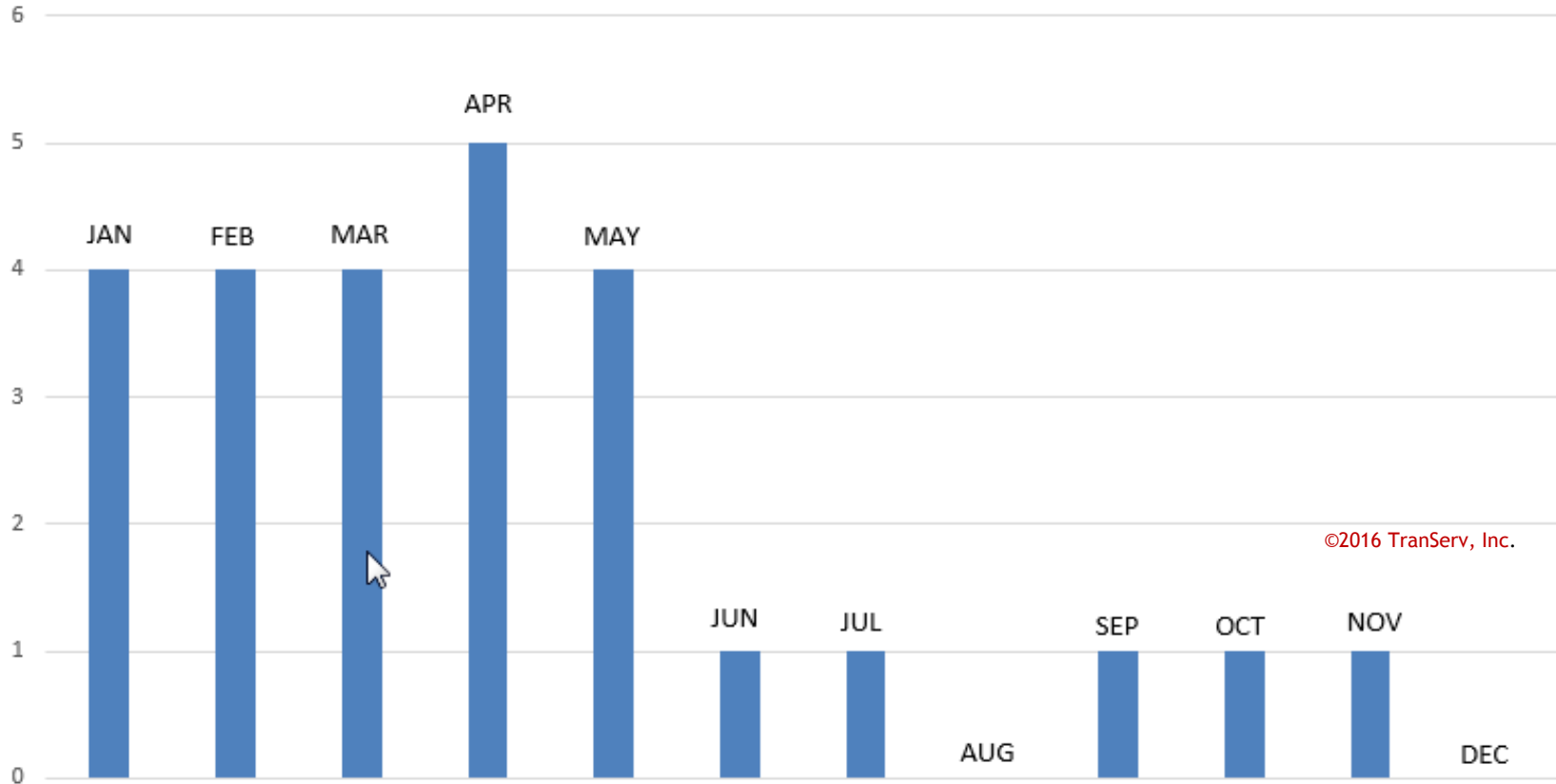
## Percentage of Time Monthly Firm Available for Import to Network Load

Source – October 30, 2015 ATC Posting

Network Load	Bluegrass	EEI	KMPA	LGEE	MISO	OMU	OVEC	PJM	TVA
EKPC[PJM]	76%	18%	47%	65%	0%	29%	0%	0%	76%
LGEE/KMPA	76%	0%	6%	76%	59%	35%	94%	94%	94%
OMU	53%	18%	59%	65%	94%	0%	88%	76%	100%
TVA	35%	0%	59%	41%	100%	41%	88%	53%	0%

# Snapshot of Import Capacity

Import Paths Available In 2017 Per Month into LGEE



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# ITO Issue Summary Since Last Meeting

TranServ Help Desk Tickets	
Created For	Number of Tickets
OATT Customers	17
LG&E and KU Transmission Owner	33
TVA Reliability Coordinator	3
Internal TranServ Requests	146
<b>Total for Period</b>	<b>199</b>

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Recurring Unused Transmission Service Reservations under the LG&E/KU OATT  
Reservations that were unscheduled, or scheduled less than 10% of available for more than 1 Month  
for Months of September 2015 to February 2016

Aref	Customer	POR	POD	StartTime	StopTime	TSClass	TSType	Increment	Request Type	Year	Month	Energy Avail	Energy Unused	Capacity	Percent Unscheduled
73671359	IMEA	LGEE	PJM	20100601000000ES	20350601000000ES	FIRM	PTP	YEARLY	ORIGINAL	2015	9,10,11,12,1,2	2160	2160	3	100
78542119	LGE	LGEE	PJM	20140901000000ES	20190901000000ES	FIRM	PTP	YEARLY	RENEWAL	2015	11, 2	18000	16825	25	93
79224379	OMUA	OMU	MISO	20140501000000ES	20190501000000ES	FIRM	PTP	YEARLY	ORIGINAL	2015	11,12	36720	35994	51	98

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# Tariff Operations (Continued)

- September 2015 through February 2016 Redirect Report (count of occurrences)

Cust	Original Incre	Original TSR	Original Path POD	MISO	PJM	TVA	LGEE	Grand Total
LGE	DAILY	80904324	LGEE	1	1			2
		80904354	LGEE		2			2
		80912706	LGEE		4			4
		80980542	LGEE		2	1		3
		80980543	LGEE		1	1		2
	YEARLY	78542119	PJM	15	1	12	5	33
	MONTHLY	80595946	LGEE		8			8
Grand Total				16	19	14	5	54

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- Full reports are posted on OASIS under the Stakeholder Information folder

- March 2016 - ITO Entered each Customers NITS information on the OASIS Development System
- April 2016 - ITO held Individual Training Sessions for each NITS Customer
- May 2016 – Reviewed Customer Comments and modified OASIS Development System
- June 2016 – ITO uploaded NITS Application to OASIS Production Environment and each Customer reviewed and approved
- Although FERC has deferred requirement for 676-H to 2017, the ITO and LG&E and KU would like to implement NITS on OASIS prior to 2017

- Key Concepts
  - *All actions for NITS are in the form of “requests”*
  - *Confirmed “requests” will be reflected in updates to the customer’s NITS Application*
  - *Each individual NITS request will have an Assignment\_Ref*
  - *Each NITS Application will have an Application\_Ref*
- Key NITS Model Elements
  - *NITS Application*
  - *Loads*
  - *Generation*

- *Resources*
- *Designated Network Resources*
  - Scheduling Rights
  - DNR to load 1:1 ratio is not enforced
- *Secondary Network Resources (6NN)*

# Questions

# Thank You

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