IVL Year end installed Capacities based on announcements made

Years	2017A	2018A	2019A	Yr '19 % of IVL	2020E
Qty in Kt					
Consolidated in the Company					
PET Nec	3,485	4,407	5,366	36%	5,326
Asia	*1,038*	*1,395*	*2,363*	*16%*	*2,440*
EMEA	*1,414*	*1,442*	*1,476*	*10%*	*1,480*
America	*1,033*	*1,570*	*1,528*	*10%*	*1,406*
PTA	4,018	4,911	4,981	33%	4,995
Asia	*1,373*	*1,873*	*1,881*	*13%*	*1,886*
EMEA	*1,025*	*1,735*	*1,735*	*12%*	*1,739*
America	*1,620*	*1,303*	*1,365*	*9%*	*1,369*
RECYCLING	366	369	465	3%	612
Asia	*28*	*28*	*28*	*0%*	*29*
EMEA	*175*	*196*	*198*	*1%*	*186*
America	*162*	*144*	*238*	*2%*	*397*
PX Merchant	-	-	194	1%	194
America	-	-	*194*	*1%*	*194*
IVOG	550	550	550	4%	550
America	*550*	*550*	*550*	*4%*	*550*
IVOL	-	-	-	0%	110
America	-	-	-	*0%*	*110*
PET HVA	506	511	627	4%	617
Asia	*95*	*82*	*62*	*0%*	*66*
EMEA	*37*	*35*	*185*	*1%*	*185*
America	*374*	*394*	*381*	*3%*	*367*
IPA	220	440	440	3%	441
EMEA	*220*	*220*	*220*	*1%*	*221*
America	-	*220*	*220*	*1%*	*220*
NDC	27	27	27	0%	27
America	*27*	*27*	*27*	*0%*	*27*
PACKAGING	182	320	276	2%	294
Asia	*121*	*235*	*183*	*1%*	*194*
EMEA	*62*	*85*	*92*	*1%*	*100*
America	-	-	-	*0%*	-
Fibers (Polyester,PP, Nylon 66 etc)	1,332	1,512	2,057	14%	2,276
Asia	*785*	*809*	*1,248*	*8%*	*1,454*
EMEA	*337*	*443*	*467*	*3%*	*462*
America	*209*	*260*	*342*	*2%*	*360*
Fibers (Wool)	6	9	9	0%	9
Asia	*6*	*6*	*6*	*0%*	*6*
EMEA	-	*4*	*3*	*0%*	*4*
IVL	10,692	13,056	14,993	100%	15,451
ASIA	3,447	4,428	5,771	38%	6,074
EMEA	3,270	4,160	4,375	29%	4,376
America	3,975	4,468	4,846	32%	5,001
Integrated PET (PET + PTA + Recycling	7,869	9,687	11,007	73%	11,127
ASIA	31%	34%	39%		39%
EMEA	33%	35%	31%		31%
America	36%	31%	30%		30%
Olefins (IVOG + IVOL)	550	550	550	4%	660
ASIA	0%	0%	0%		0%
EMEA	0%	0%	0%		0%
America	100%	100%	100%		100%
Specialty Chemicals (Specialty PET, IPA	753	978	1,094	7%	1,085
ASIA	13%	8%	6%		6%
EMEA	34%	26%	37%		37%
America	53%	66%	57%		57%
PACKAGING	182	320	276	2%	294
ASIA	66%	74%	67%		66%
EMEA	34%	26%	33%		34%
FIBERS TOTAL	1,338	1,521	2,066	14%	2,285
ASIA	59%	54%	61%		64%
EMEA	25%	29%	23%		20%
America	16%	17%	17%		16%

Theoritical RM requirement on 2019 capacity @ 90% utilization

INDORAMA VENTURES

	Requirement				Production			
	PTA	MEG	PX	IPA	PTA	MEG	PX	IPA
PET Nec	3,988	1,662		95				
Asia	*1,786*	*744*		*43*				
EMEA	*1,047*	*436*		*25*				
America	*1,155*	*481*		*28*				
PTA			2,959		4,483		648	
Asia			*1,117*		*1,693*			
EMEA			*1,030*		*1,561*			
America			*811*		*1,229*		*648*	
RECYCLING	202	84		4				
Asia	*22*	*9*						
EMEA								
America	*180*	*75*		*4*				
PX Merchant								
America								
IVOG						297		
America						*297*		
IVOL								
America								
PET HVA	476	198						
Asia	*47*	*19*						
EMEA	*140*	*58*						
America	*289*	*120*						
IPA								396
EMEA								*198*
America								*198*
NDC								
America								
PACKAGING								
Asia								
EMEA								
America								
Fibers (Polyester,PP, Nylon 66 etc)	768	313		10				
Asia	*592*	*241*		*1*				
EMEA	*95*	*39*		*3*				
America	*81*	*33*		*6*				
Fibers (Wool)								
Asia								
EMEA								
IVL	5,433	2,256	2,959	109	4,483	297	648	396
ASIA	*2,447*	*1,014*	*1,117*	*44*	*1,693*			
EMEA	*1,281*	*533*	*1,030*	*28*	*1,561*			*198*
America	*1,705*	*709*	*811*	*37*	*1,229*	*297*	*648*	*198*

PTA Global Integration %	83%
MEG Global Integration %	13%
PX Global Integration %	22%
IPA Global Integration %	100%
Theoritical PTA buying in KT	951
Theoritical MEG buying in KT	1,959
Theoritical PX buying in KT	2,311
Theoritical IPA buying in KT	-
Theoritical RM buying in KT	5,220

Joint Ventures-Equity Accounting (% of IVL share)

Joint Ventures	605	369	50	50
PET NEC	349	349	-	-
ASIA	*349*	*349*	-	-
PTA	236	-	-	-
ASIA	*236*	-	-	-
FIBERS	20	20	50	50
ASIA	*20*	*20*	*20*	*20*
America	-	-	*30*	*30*