

SCAQMD NO_x RECLAIM PROPOSED SHAVE APPROACHES

		Refinery	Non-Refinery
#1	Across the Board <i>Affects all facilities and investors</i>	56%	56%
#2	Weighted by BARCT Reduction Contribution <i>Affects all facilities and investors</i>	77%	35%
#3	Hybrid of #1 and #2: BARCT reductions applied to adjusted initial allocation; C&C equivalent adjustment across the board <i>Affects all facilities and investors</i>	68%	44%
#4	Shave applied to top 90% of emitter's RTC holdings <i>33 facilities, plus investors as 1 company 25 non-major refinery facilities</i>	76%	76%
#5	Shave applied to top 90% of RTC holders <i>57 facilities, plus investors as 1 company 49 non-major refinery facilities</i>	62%	62%

Total NO_x RTC Allocation **26.51**

CY 2011 Actual Emissions **20.01**

*Power Plant emissions were calculated based on calendar year 2012 reported fuel usage; the total emissions from CY2011 for all other sources and from calendar year 2012 usage for power plants amount to 20.72 tpd

Emission Reductions Beyond 2005 BARCT (From Slides 7-8)

Refinery	6.06	69%
Non- Refinery	2.77	31%
TOTAL	8.83	

Remaining Emissions in 2023 (After BARCT and Growth)

Refinery (From Slide 7)	2.71
Non-Refinery (From Slide 8)	7.47
New Facs	0.07
Subtotal w/10%	11.28
CPCC	0.29
Shutdown Glass Facs	0.10
TOTAL	11.67

Calculation Method

RTC Reductions = Current RTC Holdings (26.51 tons) - Remaining Emissions in 2023 (11.67 tons) = 14.85

Approach 1: Across the Board

RTC Reductions (26.51 - 11.67)	14.85
% Shave (14.85 / 26.51) x 100	56%

Approach 2: Weighted Refinery/Non-Refinery Reductions

Weighted Reduction for Refinery (14.85 x 69%)	10.19
Weighted Reduction for Non-Refinery (14.85 x 31%)	4.66
Current IYB Refinery Holdings as of 3/20/15:	13.28
Current IYB Non-Refinery + Investor Holdings as of 3/20/15:	13.23
Remaining Refinery RTC Holdings (13.28 - 10.19):	3.09
% Shave to this Sub-Universe (10.19 / 13.28) x 100	77%
Remaining Non-Refinery/Investor RTC Holdings (13.23 - 4.66):	8.57
% Shave to this Sub-Universe (4.66 / 13.23) x 100	35%
Total Remaining RTC Holdings:	11.67
"Overall" % Shave:	56%

Approach 3: Weighted Refinery/Non-Refinery Reductions PLUS Remaining Reductions Across the Board

Current IYB Refinery Holdings as of 3/20/15:	13.28
Current IYB Non-Refinery + Investor Holdings as of 3/20/15:	13.23
Refinery BARCT Emission Reductions	6.06
Non- Refinery BARCT Emission Reductions	2.77
Step 1: Remaining Reductions (14.85 - 6.06 - 2.77):	6.02
Step 2: Added Reduction for Refineries by Remaining Holdings (6.02 x 50%)	3.01
50% is from 3/20/15 Holdings for Major Refineries	
Added Reduction for Non-Refinery by Remaining Holdings (6.02 x 50%)	3.01
50% is from 3/20/15 Holdings	
Remaining Refinery RTC Holdings (13.28 - 6.06 - 3.01):	4.21
% Shave to this Sub-Universe (6.06 + 3.01) / 13.28 x 100	68%
Remaining Non-Refinery/Investor RTC Holdings (13.23 - 2.77 - 3.01):	7.45
% Shave to this Sub-Universe (2.77 + 3.01) / 13.23 x 100	44%
Total Remaining RTC Holdings:	11.67
"Overall" % Shave:	56%

Approach #4: Shave Applied to Top 90% of CY2011 Emitter's RTC Holdings (33 Facilities and Investors)

Class	ID	Name	CY 2011 Emissions (tons/day)	IYB RTC Holding as of 3/20/2015 (tons/day)
Refinery	800089	EXXONMOBIL OIL CORPORATION	2.19	2.47
Refinery	800030	CHEVRON PRODUCTS CO.	1.95	2.82
Refinery	174655	TESORO REFINING & MARKETING CO, LLC	1.69	2.30
Refinery	800436	TESORO REFINING AND MARKETING CO, LLC	1.61	1.83
Refinery	171107	PHILLIPS 66 CO/LA REFINERY WILMINGTON PL	1.57	1.60
Refinery	171109	PHILLIPS 66 COMPANY/LOS ANGELES REFINERY	0.92	0.38
Refinery	800026	ULTRAMAR INC	0.73	1.38
Other	46268	CALIFORNIA STEEL INDUSTRIES INC	0.64	0.44
Other	800128	SO CAL GAS CO	0.63	0.49
Refinery	174591	TESORO REF & MKTG CO LLC,CALCINER	0.56	0.37
Other	166073	BETA OFFSHORE	0.54	0.07
Other	172005	NEW- INDY ONTARIO, LLC	0.45	0.18
Other	18931	TAMCO	0.31	0.20
Power Plant	800074	LA CITY, DWP HAYNES GENERATING STATION	0.28	0.52
Power Plant	160437	SOUTHERN CALIFORNIA EDISON	0.28	0.40
Power Plant	800193	LA CITY, DWP VALLEY GENERATING STATION	0.23	0.11
Other	4242	SAN DIEGO GAS & ELECTRIC	0.20	0.13
Power Plant	4477	SO CAL EDISON CO	0.19	0.19
Other	7427	OWENS-BROCKWAY GLASS CONTAINER INC	0.19	0.21
Other	119907	BERRY PETROLEUM COMPANY	0.18	0.11
Power Plant	129816	INLAND EMPIRE ENERGY CENTER, LLC**	0.15	0
Refinery	800183	PARAMOUNT PETR CORP	0.14	0.19
Power Plant	800075	LA CITY, DWP SCATTERGOOD GENERATING STN	0.14	0.49
Power Plant	115389	AES HUNTINGTON BEACH, LLC	0.14	0.25
Refinery	151798	TESORO REFINING AND MARKETING CO, LLC	0.13	0.14
Other	51620	WHEELABRATOR NORWALK ENERGY CO INC	0.12	0.09
Other	5973	SO CAL GAS CO	0.12	0.08
Other	11435	PQ CORPORATION	0.11	0.13
Power Plant	115394	AES ALAMITOS, LLC	0.11	0.75
Other	800335	LA CITY, DEPT OF AIRPORTS	0.10	0.05
Other	129497	THUMS LONG BEACH CO**	0.09	0
Other	124838	EXIDE TECHNOLOGIES	0.09	0.10
Other	15504	SCHLOSSER FORGE COMPANY	0.07	0.03
Investors*			1.16	1.16
SUBTOTAL			16.83	

GRAND TOTAL: EMISSIONS + INVESTORS AS ONE FACILITY 17.99

17.99 / 20.01 = (90% of Emissions)

TOTAL HOLDINGS 19.63

*Assume Investor holdings = emissions

COUNTS

Major Refineries	9
Power Plants	8
Other	16
Investors	1
TOTAL	34

Remaining Power Plants not in Top 90% Emitters			Emissions (tpd)	Holdings (tpd)
Power Plant	115663	EL SEGUNDO POWER, LLC	0.03	0.68
Power Plant	115536	AES REDONDO BEACH, LLC	0.06	0.40
Power Plant	115315	NRG CALIFORNIA SOUTH LP, ETIWANDA GEN ST	0.01	0.36
Power Plant	152707	CPV SENTINEL LLC	0.00	0.33
Power Plant	146536	WALNUT CREEK ENERGY, LLC	0.00	0.16
Power Plant	128243	BURBANK CITY, BURBANK WATER & POWER, SCPPA	0.07	0.13
Power Plant	115314	LONG BEACH GENERATION, LLC	0.02	0.12
Power Plant	153992	CANYON POWER PLANT	0.03	0.12
Power Plant	25638	BURBANK CITY, BURBANK WATER & POWER	0.01	0.10
Power Plant	800168	PASADENA CITY, DWP	0.06	0.08
Power Plant	155474	BICENT (CALIFORNIA) MALBURG LLC	0.05	0.07
Power Plant	800170	LA CITY, DWP HARBOR GENERATING STATION	0.03	0.06
Power Plant	172077	CITY OF COLTON	0.00	0.04
Power Plant	139796	CITY OF RIVERSIDE PUBLIC UTILITIES DEPT	0.01	0.04
Power Plant	129810	CITY OF RIVERSIDE PUBLIC UTILITIES DEPT	0.00	0.03
Power Plant	164204	CITY OF RIVERSIDE, PUBLIC UTILITIES DEPT	0.00	0.03
Power Plant	56940	CITY OF ANAHEIM/COMB TURBINE GEN STATION	0.01	0.01
Power Plant	14502	VERNON CITY, LIGHT & POWER DEPT	0.00	0.01

Power Plants with No Holdings as of 3/20/15

Power Plant	129816	INLAND EMPIRE ENERGY CENTER, LLC**	0.15	0
Power Plant	127299	WILDFLOWER ENERGY LP/INDIGO GEN., LLC	0.02	0
Power Plant	132191	PUREENERGY OPERATING SERVICES, LLC	0.00	0
Power Plant	132192	PUREENERGY OPERATING SERVICES, LLC	0.00	0
Power Plant	167432	EDISON MISSION HUNTINGTON BEACH, LLC***	0.00	0
		*** (Decommissioned in 2012)		

Other Non-Refinery Facilities with No Holdings as of 3/20/15

Other	129497	THUMS LONG BEACH CO**	0.09	0
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** Among Top 90% of Emitters in CY2011

Shave Calculation (Approach #4)

Total RTC Allocation	26.51
Remaining 2023 Emissions After BARCT and Growth	11.67
Total RTC Reduction (26.51 - 11.67)	14.85
RTC Holdings for Top 90% of CY2011 Emitters, Including Investors	19.63
Remaining RTC Holdings (19.63 - 14.85)	4.79
% Shave to this Sub-Universe (4.79 / 19.63) x 100	24.4%

**Approach #5: Shave Applied to Top 90% of RTC Holders
(57 Facilities and Investors)**

Class	ID	Name	CY 2011 Emissions (tons/day)	IYB RTC Holding as of 3/20/2015 (tons/day)
Refinery	800030	CHEVRON PRODUCTS CO.	1.95	2.82
Refinery	800089	EXXONMOBIL OIL CORPORATION	2.19	2.47
Refinery	174655	TESORO REFINING & MARKETING CO, LLC	1.69	2.30
Refinery	800436	TESORO REFINING AND MARKETING CO, LLC	1.61	1.83
Refinery	171107	PHILLIPS 66 CO/LA REFINERY WILMINGTON PL	1.57	1.60
Refinery	800026	ULTRAMAR INC	0.73	1.38
Power Plant	115394	AES ALAMITOS, LLC	0.11	0.75
Power Plant	115663	EL SEGUNDO POWER, LLC	0.03	0.68
Power Plant	800074	LA CITY, DWP HAYNES GENERATING STATION	0.28	0.52
Other	800128	SO CAL GAS CO	0.63	0.49
Power Plant	800075	LA CITY, DWP SCATTERGOOD GENERATING STN	0.14	0.49
Other	46268	CALIFORNIA STEEL INDUSTRIES INC	0.64	0.44
Power Plant	115536	AES REDONDO BEACH, LLC	0.06	0.40
Power Plant	160437	SOUTHERN CALIFORNIA EDISON	0.28	0.40
Refinery	171109	PHILLIPS 66 COMPANY/LOS ANGELES REFINERY	0.92	0.38
Refinery	174591	TESORO REF & MKTG CO LLC,CALCINER	0.56	0.37
Power Plant	115315	NRG CALIFORNIA SOUTH LP, ETIWANDA GEN ST	0.01	0.36
Power Plant	152707	CPV SENTINEL LLC	0.00	0.33
Other	169754	OXY USA INC	0.00	0.32
Power Plant	115389	AES HUNTINGTON BEACH, LLC	0.14	0.25
Other	7427	OWENS-BROCKWAY GLASS CONTAINER INC	0.19	0.21
Other	18931	TAMCO	0.31	0.20
Power Plant	4477	SO CAL EDISON CO	0.19	0.19
Refinery	800183	PARAMOUNT PETR CORP	0.14	0.19
Other	43201	SNOW SUMMIT INC	0.02	0.19
Other	172005	NEW- INDY ONTARIO, LLC	0.45	0.18
Power Plant	146536	WALNUT CREEK ENERGY, LLC	0.00	0.16
Other	800189	DISNEYLAND RESORT	0.06	0.15
Other	156741	HARBOR COGENERATION CO, LLC	0.00	0.14
Refinery	151798	TESORO REFINING AND MARKETING CO, LLC	0.13	0.14
Power Plant	128243	BURBANK CITY,BURBANK WATER & POWER,SCPPA	0.07	0.13
Other	11435	PQ CORPORATION	0.11	0.13
Other	4242	SAN DIEGO GAS & ELECTRIC	0.20	0.13
Power Plant	115314	LONG BEACH GENERATION, LLC	0.02	0.12
Other	17953	PACIFIC CLAY PRODUCTS INC	0.03	0.12
Power Plant	153992	CANYON POWER PLANT	0.03	0.12
Other	800127	SO CAL GAS CO	0.00	0.11
Power Plant	800193	LA CITY, DWP VALLEY GENERATING STATION	0.23	0.11
Other	119907	BERRY PETROLEUM COMPANY	0.18	0.11
Power Plant	25638	BURBANK CITY, BURBANK WATER & POWER	0.01	0.10
Other	124838	EXIDE TECHNOLOGIES	0.09	0.10
Other	51620	WHEELABRATOR NORWALK ENERGY CO INC	0.12	0.09
Other	5973	SO CAL GAS CO	0.12	0.08
Power Plant	800168	PASADENA CITY, DWP	0.06	0.08
Other	3968	TABC, INC	0.00	0.08
Other	8582	SO CAL GAS CO/PLAYA DEL REY STORAGE FACI	0.06	0.07
Power Plant	155474	BICENT (CALIFORNIA) MALBURG LLC	0.05	0.07
Other	800181	CALIFORNIA PORTLAND CEMENT CO	0.00	0.07
Other	166073	BETA OFFSHORE	0.54	0.07
Other	114801	SOLVAY USA, INC.	0.07	0.07
Other	800153	US GOVT, NAVY DEPT LB SHIPYARD	0.00	0.07
Other	8547	QUEMETCO INC	0.06	0.07
Other	1073	BORAL ROOFING LLC	0.02	0.07
Other	155877	MILLERCOORS, LLC	0.04	0.06
Other	16642	ANHEUSER-BUSCH LLC., (LA BREWERY)	0.03	0.06
Other	11887	NASA JET PROPULSION LAB	0.03	0.06
Other	800038	THE BOEING COMPANY - C17 PROGRAM	0.01	0.06
Investors				1.16

TOTAL HOLDINGS **23.87**
23.87 / 26.5 = **90%**

COUNTS

Major Refineries	9
Power Plants	18
Other	30
Investors	1
TOTAL	58

Remaining Power Plants not in Top 90%			Emissions (tpd)	Holdings (tpd)
Power Plant	800170	LA CITY, DWP HARBOR GENERATING STATION	0.03	0.06
Power Plant	172077	CITY OF COLTON	0.00	0.04
Power Plant	139796	CITY OF RIVERSIDE PUBLIC UTILITIES DEPT	0.01	0.04
Power Plant	129810	CITY OF RIVERSIDE PUBLIC UTILITIES DEPT	0.00	0.03
Power Plant	164204	CITY OF RIVERSIDE, PUBLIC UTILITIES DEPT	0.00	0.03
Power Plant	56940	CITY OF ANAHEIM/COMB TURBINE GEN STATION	0.01	0.01
Power Plant	14502	VERNON CITY, LIGHT & POWER DEPT	0.00	0.01

Power Plants with No Holdings as of 3/20/15

Power Plant	129816	INLAND EMPIRE ENERGY CENTER, LLC	0.15	0
Power Plant	127299	WILDFLOWER ENERGY LP/INDIGO GEN., LLC	0.02	0
Power Plant	132191	PUREENERGY OPERATING SERVICES, LLC	0.00	0
Power Plant	132192	PUREENERGY OPERATING SERVICES, LLC	0.00	0
Power Plant	167432	EDISON MISSION HUNTINGTON BEACH, LLC*	0.00	0
		*(Decommissioned in 2012)		

Shave Calculation (Approach #5)

Total RTC Allocation	26.51
Remaining 2023 Emissions After BARCT and Growth	11.67
Total RTC Reduction (26.51 - 11.67)	14.85
RTC Holdings for Top 90% of of Holders, Including Investors	23.87
Remaining RTC Holdings (23.87 - 14.85)	9.02
% Shave to this Sub-Universe (14.85 / 23.87) x 100	62%