

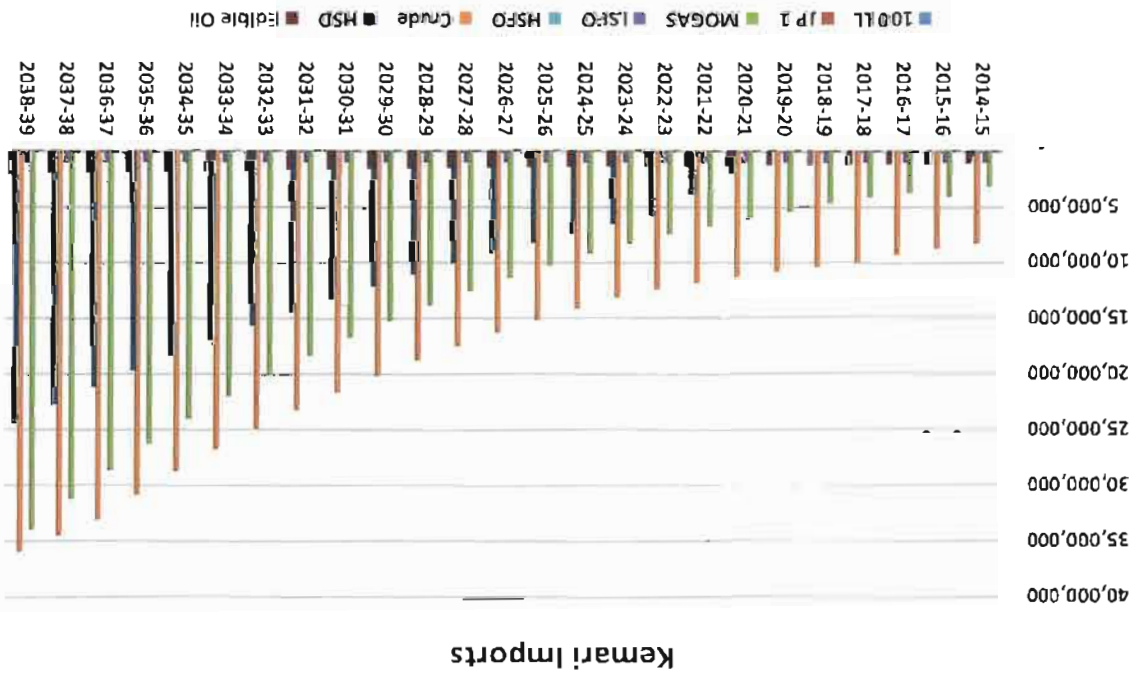


Year	100 LT	JP 1	MOGAS	LSFO	HSFO	Crude	HSD	Edible Oil
2014-15	1,999	53,495	3,141,126	1,031,702	164,237	8,323,653	413,987	1,100,000
2015-16	1,999	53,495	4,064,100	1,031,702	164,237	8,787,832		1,127,500
2016-17	1,999	53,495	3,726,300	1,031,702	164,237	9,349,249		1,155,688
2017-18	1,999	53,495	4,140,800	1,031,702	164,237	10,044,574		1,184,580
2018-19	1,999	53,495	4,668,700	1,031,702	164,237	10,438,904		1,214,194
2019-20	1,999	53,495	5,455,820	1,031,702	164,237	10,859,996	17,370	1,244,549
2020-21	1,999	53,495	6,081,922	1,031,702	164,237	11,309,704	1,932,784	1,275,663
2021-22	1,999	53,495	6,751,852	1,031,702	164,237	11,855,753	3,851,510	1,307,554
2022-23	1,999	53,495	7,468,677	1,031,702	164,237	12,444,379	5,773,612	1,340,243
2023-24	1,999	53,495	8,345,251	1,031,702	164,237	13,174,204	6,562,789	1,373,749
2024-25	1,999	53,495	9,291,951	1,031,702	164,237	14,163,452	7,391,424	1,408,093
2025-26	1,999	53,495	10,314,387	1,031,702	164,237	15,221,497	8,261,491	1,443,295
2026-27	1,999	53,495	11,418,618	1,031,702	164,237	16,353,356	9,175,061	1,479,378
2027-28	1,999	53,495	12,611,187	1,031,702	164,237	17,564,422	10,134,310	1,516,362
2028-29	1,999	53,495	13,899,162	1,031,702	164,237	18,860,497	11,141,522	1,554,271
2029-30	1,999	53,495	15,290,175	1,031,702	164,237	20,247,820	12,199,094	1,593,128
2030-31	1,999	53,495	16,792,469	1,031,702	164,237	21,733,101	13,309,544	1,632,956
2031-32	1,999	53,495	18,414,947	1,031,702	164,237	23,323,560	14,475,518	1,673,780
2032-33	1,999	53,495	20,167,222	1,031,702	164,237	25,026,963	15,699,789	1,715,625
2033-34	1,999	53,495	22,059,680	1,031,702	164,237	26,851,665	16,985,275	1,758,515
2034-35	1,999	53,495	24,103,535	1,031,702	164,237	28,806,659	18,335,034	1,802,478
2035-36	1,999	53,495	26,310,897	1,031,702	164,237	30,901,621	19,752,282	1,847,540
2036-37	1,999	53,495	28,694,849	1,031,702	164,237	33,146,966	21,240,392	1,893,729
2037-38	1,999	53,495	31,269,517	1,031,702	164,237	34,565,740	22,802,907	1,941,072
2038-39	1,999	53,495	34,050,159	1,031,702	164,237	36,046,590	24,443,549	1,989,599

28.12 Imports at Kemari:

We have started from the figures of OCAC with current numbers and future expansions; we have performed projections based on our estimates for future for MS and HSD. The volumes of 2014-15 are taken from OCAC Pakistan Oil Report.

Part-II

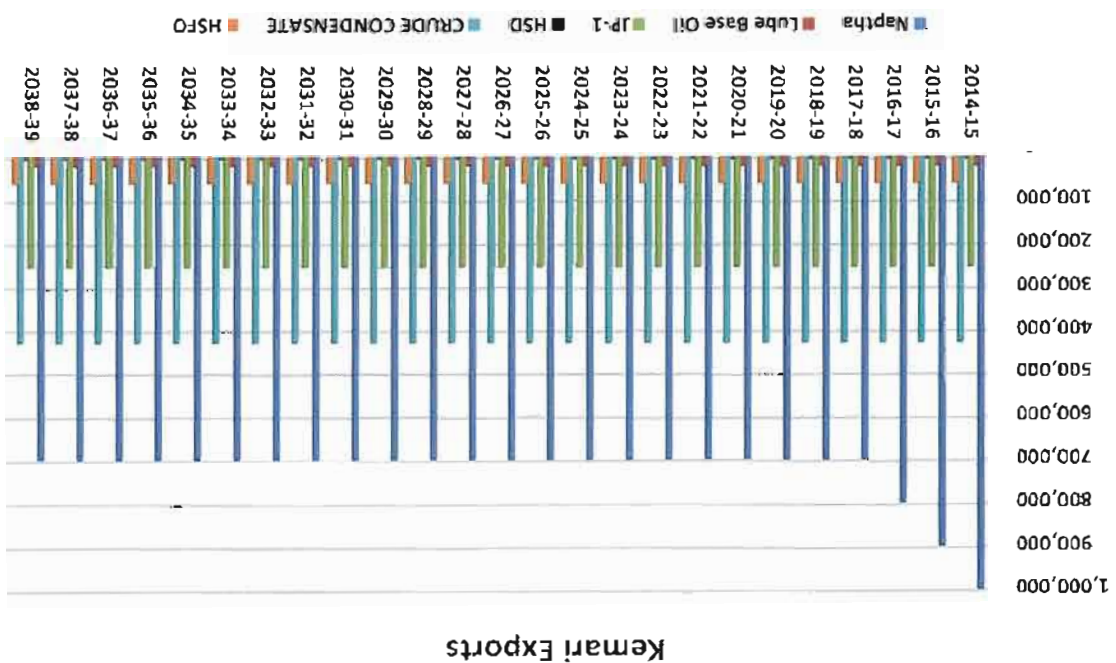


Year	Naphtha	Lube Base Oil	JP-1	HSD	CRUDE CONDENSATE	HSFO
2014-15	997,964	19,950	254,418	5,542	429,000	60,059
2015-16	898,168	19,950	254,418	5,542	429,000	60,059
2016-17	798,371	19,950	254,418	5,542	429,000	60,059
2017-18	698,575	19,950	254,418	5,542	429,000	60,059
2018-19	698,575	19,950	254,418	5,542	429,000	60,059
2019-20	698,575	19,950	254,418	5,542	429,000	60,059
2020-21	698,575	19,950	254,418	5,542	429,000	60,059
2021-22	698,575	19,950	254,418	5,542	429,000	60,059
2022-23	698,575	19,950	254,418	5,542	429,000	60,059
2023-24	698,575	19,950	254,418	5,542	429,000	60,059
2024-25	698,575	19,950	254,418	5,542	429,000	60,059
2025-26	698,575	19,950	254,418	5,542	429,000	60,059
2026-27	698,575	19,950	254,418	5,542	429,000	60,059
2027-28	698,575	19,950	254,418	5,542	429,000	60,059
2028-29	698,575	19,950	254,418	5,542	429,000	60,059
2029-30	698,575	19,950	254,418	5,542	429,000	60,059
2030-31	698,575	19,950	254,418	5,542	429,000	60,059
2031-32	698,575	19,950	254,418	5,542	429,000	60,059
2032-33	698,575	19,950	254,418	5,542	429,000	60,059
2033-34	698,575	19,950	254,418	5,542	429,000	60,059
2034-35	698,575	19,950	254,418	5,542	429,000	60,059
2035-36	698,575	19,950	254,418	5,542	429,000	60,059
2036-37	698,575	19,950	254,418	5,542	429,000	60,059
2037-38	698,575	19,950	254,418	5,542	429,000	60,059
2038-39	698,575	19,950	254,418	5,542	429,000	60,059

28.13 Kemari Exports:

We have kept the numbers same as per OCAC except naphtha for which we assume local refinery utilization will increase. The volumes of 2014-15 are taken from OCAC Pakistan Oil Report.





28.14 Total Throughput Kemari

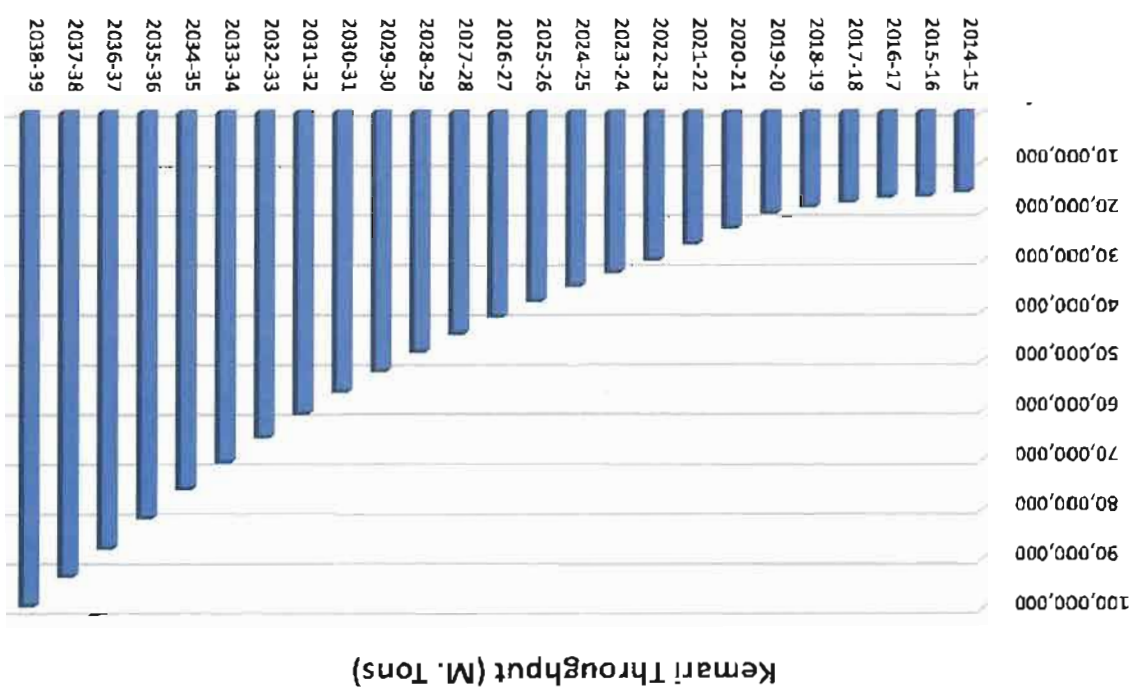
Total through put volumes are addition of all the imports and exports projections of a specific years taken from the data given in import & export tables. Kemari if working at full efficiency can manage practical and realistic throughput volumes of 20 Million MT, which will be achieved in year 2019-20. So far the calculation of volumes for the new jetty only the access volumes from year 2020-21 are considered. Total throughput volumes are addition of all imports and exports projections of specific years taken from the data given in import & export tables given.

Based on all above volumes, consolidate volumes will be as follows:

Year	Kemari	Excess Volumes
2014-15	15,997,132	
2015-16	16,898,002	
2016-17	17,050,010	
2017-18	18,088,930	
2018-19	19,040,775	
2019-20	20,296,712	
2020-21	23,319,051	3,022,339
2021-22	26,485,645	6,188,933
2022-23	29,745,888	9,449,176
2023-24	32,174,970	11,878,258
2024-25	34,973,896	14,677,184
2025-26	37,959,647	17,662,935
2026-27	41,145,389	20,848,677
2027-28	44,545,259	24,248,547
2028-29	48,174,429	27,877,717
2029-30	52,049,194	31,572,482
2030-31	56,187,048	35,890,336
2031-32	60,606,781	40,310,069
2032-33	65,328,576	45,031,864
2033-34	70,374,112	50,077,400
2034-35	75,766,683	55,469,971
2035-36	81,531,318	61,234,606
2036-37	87,694,912	67,398,200
2037-38	93,298,213	73,001,501
2038-39	99,248,872	78,952,160

*The proposed FWO Jetty including all the existing jetties will reach their maximum design capacity by 2024-25



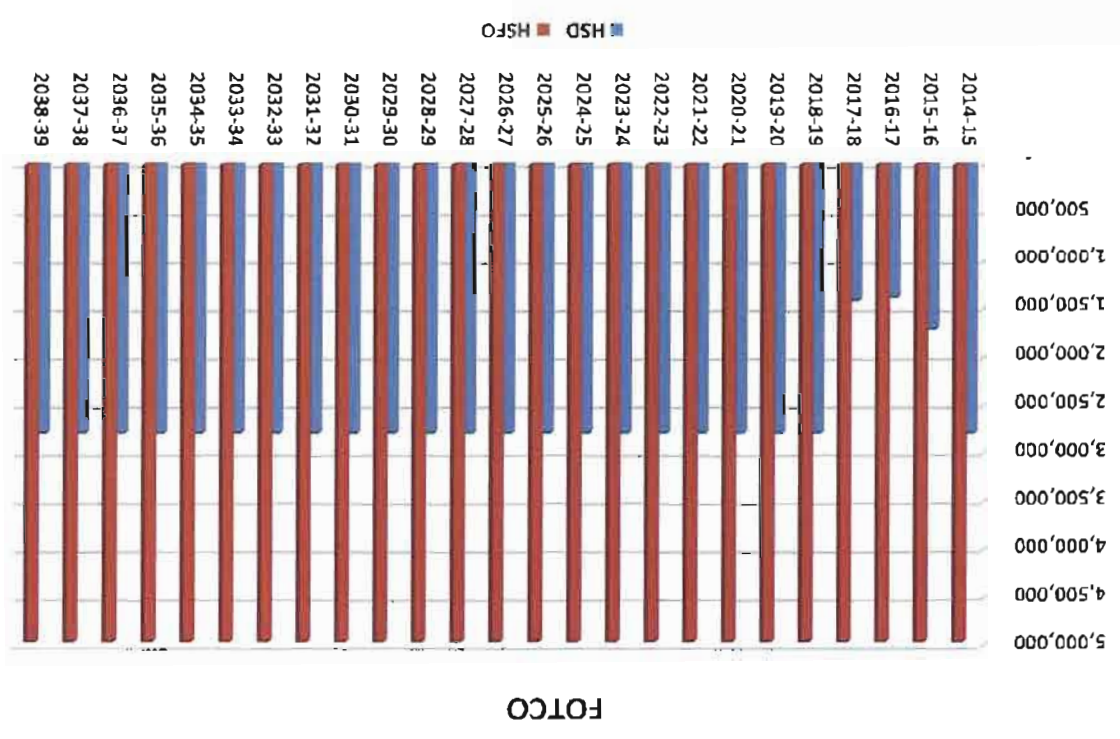


28.15 Fotco Volumes:

We have kept the numbers of FOTCO Jetty as same and kept the HSD volumes import priority in favor of FOTCO against KPT

Year	HSD	HSFO	Crude
2014-15	2,789,718	4,954,868	5,00,000
2015-16	1,712,600	4,954,868	5,00,000
2016-17	1,381,600	4,954,868	5,00,000
2017-18	1,412,800	4,954,868	5,00,000
2018-19	2,789,718	4,954,868	5,00,000
2019-20	2,789,718	4,954,868	5,00,000
2020-21	2,789,718	4,954,868	5,00,000
2021-22	2,789,718	4,954,868	5,00,000
2022-23	2,789,718	4,954,868	5,00,000
2023-24	2,789,718	4,954,868	5,00,000
2024-25	2,789,718	4,954,868	5,00,000
2025-26	2,789,718	4,954,868	5,00,000
2026-27	2,789,718	4,954,868	5,00,000
2027-28	2,789,718	4,954,868	5,00,000
2028-29	2,789,718	4,954,868	5,00,000
2029-30	2,789,718	4,954,868	5,00,000
2030-31	2,789,718	4,954,868	5,00,000
2031-32	2,789,718	4,954,868	5,00,000
2032-33	2,789,718	4,954,868	5,00,000
2033-34	2,789,718	4,954,868	5,00,000
2034-35	2,789,718	4,954,868	5,00,000
2035-36	2,789,718	4,954,868	5,00,000
2036-37	2,789,718	4,954,868	5,00,000
2037-38	2,789,718	4,954,868	5,00,000
2038-39	2,789,718	4,954,868	5,00,000







28.16 Pipeline Volumes:

Volumes are based on the average yearly consumption of the depots / Locations and are based on future estimates.

MS future estimates:

- 10% (Normal Growth till 2019-20)
- 2% to 3% (Growth due to CPEC impact)

HSD future estimates:

- 2% (Normal Growth)
- 2.5% (Growth due to CPEC impact)
- 6,999,436 (Calculated logical figures for the Year 2022-23) and a constant 5% growth in the coming years

Volumes are obtained by deducting the local production volumes as envisaged by OCAC. It is assumed that the CPEC volumes would be dispensed via following Bulk Stations (that will be enhanced for CPEC)

- Shikarpur
- Mahmood Kot
- Faisalabad
- Macheki
- Thaliam (New location)
- Taru Jabba

Total volumes in Year 2019-20 are 8,234,985 MT out of which 1,516,891 MT bleeds at Shikarpur through White Oil Pipeline (WOP). The remaining 6,695,491 MT is divided into two parts where 3,700,000 MT is routed through MFM to Macheki and the balance 2,995,491 MT is the baseline volume for FOC-1 pipeline for the year 2019-20



*Note: The proposed FWO Pipeline including all the existing jetties will reach their maximum design capacity by 2024-25

Location	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-00	2100-01	2101-02	2102-03	2103-04	2104-05	2105-06	2106-07	2107-08	2108-09	2109-10	2110-11	2111-12	2112-13	2113-14	2114-15	2115-16	2116-17	2117-18	2118-19	2119-20	2120-21	2121-22	2122-23	2123-24	2124-25	2125-26	2126-27	2127-28	2128-29	2129-30	2130-31	2131-32	2132-33	2133-34	2134-35	2135-36	2136-37	2137-38	2138-39	2139-40	2140-41	2141-42	2142-43	2143-44	2144-45	2145-46	2146-47	2147-48	2148-49	2149-50	2150-51	2151-52	2152-53	2153-54	2154-55	2155-56	2156-57	2157-58	2158-59	2159-60	2160-61	2161-62	2162-63	2163-64	2164-65	2165-66	2166-67	2167-68	2168-69	2169-70	2170-71	2171-72	2172-73	2173-74	2174-75	2175-76	2176-77	2177-78	2178-79	2179-80	2180-81	2181-82	2182-83	2183-84	2184-85	2185-86	2186-87	2187-88	2188-89	2189-90	2190-91	2191-92	2192-93	2193-94	2194-95	2195-96	2196-97	2197-98	2198-99	2199-00	2200-01	2201-02	2202-03	2203-04	2204-05	2205-06	2206-07	2207-08	2208-09	2209-10	2210-11	2211-12	2212-13	2213-14	2214-15	2215-16	2216-17	2217-18	2218-19	2219-20	2220-21	2221-22	2222-23	2223-24	2224-25	2225-26	2226-27	2227-28	2228-29	2229-30	2230-31	2231-32	2232-33	2233-34	2234-35	2235-36	2236-37	2237-38	2238-39	2239-40	2240-41	2241-42	2242-43	2243-44	2244-45	2245-46	2246-47	2247-48	2248-49	2249-50	2250-51	2251-52	2252-53	2253-54	2254-55	2255-56	2256-57	2257-58	2258-59	2259-60	2260-61	2261-62	2262-63	2263-64	2264-65	2265-66	2266-67	2267-68	2268-69	2269-70	2270-71	2271-72	2272-73	2273-74	2274-75	2275-76	2276-77	2277-78	2278-79	2279-80	2280-81	2281-82	2282-83	2283-84	2284-85	2285-86	2286-87	2287-88	2288-89	2289-90	2290-91	2291-92	2292-93	2293-94	2294-95	2295-96	2296-97	2297-98	2298-99	2299-00	2300-01	2301-02	2302-03	2303-04	2304-05	2305-06	2306-07	2307-08	2308-09	2309-10	2310-11	2311-12	2312-13	2313-14	2314-15	2315-16	2316-17	2317-18	2318-19	2319-20	2320-21	2321-22	2322-23	2323-24	2324-25	2325-26	2326-27	2327-28	2328-29	2329-30	2330-31	2331-32	2332-33	2333-34	2334-35	2335-36	2336-37	2337-38	2338-39	2339-40	2340-41	2341-42	2342-43	2343-44	2344-45	2345-46	2346-47	2347-48	2348-49	2349-50	2350-51	2351-52	2352-53	2353-54	2354-55	2355-56	2356-57	2357-58	2358-59	2359-60	2360-61	2361-62	2362-63	2363-64	2364-65	2365-66	2366-67	2367-68	2368-69	2369-70	2370-71	2371-72	2372-73	2373-74	2374-75	2375-76	2376-77	2377-78	2378-79	2379-80	2380-81	2381-82	2382-83	2383-84	2384-85	2385-86	2386-87	2387-88	2388-89	2389-90	2390-91	2391-92	2392-93	2393-94	2394-95	2395-96	2396-97	2397-98	2398-99	2399-00	2400-01	2401-02	2402-03	2403-04	2404-05	2405-06	2406-07	2407-08	2408-09	2409-10	2410-11	2411-12	2412-13	2413-14	2414-15	2415-16	2416-17	2417-18	2418-19	2419-20	2420-21	2421-22	2422-23	2423-24	2424-25	2425-26	2426-27	2427-28	2428-29	2429-30	2430-31	2431-32	2432-33	2433-34	2434-35	2435-36	2436-37	2437-38	2438-39	2439-40	2440-41	2441-42	2442-43	2443-44	2444-45	2445-46	2446-47	2447-48	2448-49	2449-50	2450-51	2451-52	2452-53	2453-54	2454-55	2455-56	2456-57	2457-58	2458-59	2459-60	2460-61	2461-62	2462-63	2463-64	2464-65	2465-66	2466-67	2467-68	2468-69	2469-70	2470-71	2471-72	2472-73	2473-74	2474-75	2475-76	2476-77	2477-78	2478-79	2479-80	2480-81	2481-82	2482-83	2483-84	2484-85	2485-86	2486-87	2487-88	2488-89	2489-90	2490-91	2491-92	2492-93	2493-94	2494-95	2495-96	2496-97	2497-98	2498-99	2499-00	2500-01	2501-02	2502-03	2503-04	2504-05	2505-06	2506-07	2507-08	2508-09	2509-10	2510-11	2511-12	2512-13	2513-14	2514-15	2515-16	2516-17	2517-18	2518-19	2519-20	2520-21	2521-22	2522-23	2523-24	2524-25	2525-26	2526-27	2527-28	2528-29	2529-30	2530-31	2531-32	2532-33	2533-34	2534-35	2535-36	2536-37	2537-38	2538-39	2539-40	2540-41	2541-42	2542-43	2543-44	2544-45	2545-46	2546-47	2547-48	2548-49	2549-50	2550-51	2551-52	2552-53	2553-54	2554-55	2555-56	2556-57	2557-58	2558-59	2559-60	2560-61	2561-62	2562-63	2563-64	2564-65	2565-66	2566-67	2567-68	2568-69	2569-70	2570-71	2571-72	2572-73	2573-74	2574-75	2575-76	2576-77	2577-78	2578-79	2579-80	2580-81	2581-82	2582-83	2583-84	2584-85	2585-86	2586-87	2587-88	2588-89	2589-90	2590-91	2591-92	2592-93	2593-94	2594-95	2595-96	2596-97	2597-98	2598-99	2599-00	2600-01	2601-02	2602-03	2603-04	2604-05	2605-06	2606-07	2607-08	2608-09	2609-10	2610-11	2611-12	2612-13	2613-14	2614-15	2615-16	2616-17	2617-18	2618-19	2619-20	2620-21	2621-22	2622-23	2623-24	2624-25	2625-26	2626-27	2627-28	2628-29	2629-30	2630-31	2631-32	2632-33	2633-34	2634-35	2635-36	2636-37	2637-38	2638-39	2639-40	2640-41	2641-42	2642-43	2643-44	2644-45	2645-46	2646-47	2647-48	2648-49	2649-50	2650-51	2651-52	2652-53	2653-54	2654-55	2655-56	2656-57	2657-58	2658-59	2659-60	2660-61	2661-62	2662-63	2663-64	2664-65	2665-66	2666-67	2667-68	2668-69	2669-70	2670-71	2671-72	2672-73	2673-74	2674-75	2675-76	2676-77	2677-78	2678-79	2679-80	2680-81	2681-82	2682-83	2683-84	2684-85	2685-86	2686-87	2687-88	2688-89	2689-90	2690-91	2691-92	2692-93	2693-94	2694-95	2695-96	2696-97	2697-98	2698-99	2699-00	2700-01	2701-02	2702-03	2703-04	2704-05	2705-06	2706-07	2707-08	2708-09	2709-10	2710-11	2711-12	2712-13	2713-14	2714-15	2715-16	2716-17	2717-18	2718-19	2719-20	2720-21	2721-22	2722-23	2723-24	2724-25	2725-26	2726-27	2727-28	2728-29	2729-30	2730-31	2731-32	2732-33	2733-34	2734-35	2735-36	2736-37	2737-38	2738-39	2739-40	2740-41	2741-42	2742-43	2743-44	2744-45	2745-46	2746-47	2747-48	2748-49	2749-50	2750-51	2751-52	2752-53	2753-54	2754-55	2755-56	2756-57	2757-58	2758-59	2759-60	2760-61	2761-62	2762-63	2763-64	2764-65	2765-66	2766-67	2767-68	2768-69	2769-70	2770-71	2771-72	2772-73	2773-74	2774-75	2775-76	2776-77	2777-78	2778-79	2779-80	2780-81	2781-82	2782-83	2783-84	2784-85	2785-86	2786-87	2787-88	2788-89	2789-90	2790-91	2791-92	2792-93	2793-94	2794-95	2795-96	2796-97	2797-98	2798-99	2799-00	2800-01	2801-02	2802-03	2803-04	2804-05	2805-06	2806-07	2807-08	2808-09	2809-10	2810-11	2811-12	2812-13	2813-14	2814-15	2815-16	2816-17	2817-18	2818-19	2819-20	2820-21	2821-22	2822-23	2823-24	2824-25	2825-26	2826-27	2827-28	2828-29	2829-30	2830-31	2831-32	2832-33	2833-34	2834-35	2835-36	2836-37	2837-38	2838-39	2839-40	2840-41	2841-42	2842-43	2843-44	2844-45	2845-46	2846-47	2847-48	2848-49	2849-50	2850-51	2851-52	2852-53	2853-54	2854-55	2855-56	2856-57	2857-58	2858-59	2859-60	2860-61	2861-62	2862-63	2863-64	2864-65	2865-66	2866-67	2867-68	2868-69	2869-70	2870-71	2871-72	2872-73	2873-74	2874-75	2875-76	2876-77	2877-78	2878-79	2879-80	2880-81	2881-82	2882-83	2883-84	2884-85	2885-86	2886-87	2887-88	2888-89	2889-90	2890-91	2891-92	2892-93	2893-94	2894-95	2895-96	2896-97	2897-98	2898-99	2899-00	2900-01	2901-02	2902-03	2903-04	2904-05	2905-06	2906-07	2907-08	2908-09	2909-10	2910-11	2911-12	2912-13	2913-14	2914-15	2915-16	2916-17	2917-18	2918-19	2919-20	2920-21	2921-22	2922-23	2923-24	2924-25	2925-26	2926-27	2927-28	2928-29	2929-30	2930-31	2931-32	2932-33	2933-34	2934-35	2935-36	2936-37	2937-38	2938-39	2939-40	2940-41	2941-42	2942-43	2943-44	2944-45	2945-46	2946-47	2947-48	2948-49	2949-50	2950-51	2951-52	2952-53	2953-54	2954-55	2955-56	2956-57	2957-58	2958-59	2959-60	2960-61	2961-62	2962-63	2963-64	2964-65	2965-66	2966-67	2967-68	2968-69	2969-70	2970-71	2971-72	2972-73	2973-74	2974-75	2975-76	2976-77	2977-78	2978-79	2979-80	2980-81	2981-82	2982-83	2983-84	2984-85	2985-86	2986-87	2987-88	2988-89	2989-90	2990-91	2991-92	2992-93	2993-94	2994-95	2995-96	2996-97	2997-98	2998-99	2999-00	3000-01	3001-02	3002-03	3003-04	3004-05	3005-06	3006-07	3007-08	3008-09	3009-10	3010-11	3011-12	3012-13	3013-14	3014-15	3015-16	3016-17	3017-18	3018-19	3019-20	3020-21	3021-22	3022-23	3023-24	3024-25	3025-26	3026-27	3027-28	3028-29	3029-30	3030-31	30
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The MOGAS in current situation is being transported through tank lorries, so the IFEM charges are calculated based on road rates as provided by OCAC (Annex H) The IFEM freight rates are in Rs/MT.

30.1 IFEM RATE JUSTIFICATION IN CURRENT SITUATION MOGAS

The aim of OGRA is to safeguard the public interest through effective and efficient regulation in the midstream and downstream petroleum sector. The analyses and projection of saving in the IFEM network and correlation with the tariff thus suggested for the future storage and pipeline infrastructure by FWO is in the OGRA preview. The present and the future savings in the IFEM surcharge and its impact on the pricing formula of petroleum products can be worked out by OGRA. Coordination with the midstream and the downstream stakeholders. Utilization of local refineries products in the pockets where pipeline infrastructure is suggested. Review the concessions thus demanded by FWO in light with the tariff demanded. In the second task force meeting OGRA was asked to check the IFEM saving through FWO proposed pipeline infrastructure. The case was taken up with OGRA and IFEM saving were presented to OGRA officials, to which OGRA have agreed.

30 Oil & Gas Regulatory Authority (OGRA)

Background & Interaction details:

The 2nd task force was held on 8th August 2016, under the Chairmanship of Secretary (P&NR). A presentation was made on the project details and feasibility, after detail discussion/deliberations approval was given to FWO for construction of Oil Jetty for handling of petroleum products along with construction of Pipeline. Furthermore FWO was directed to consult OGRA with regard to revision/reconciliation of IFEM related calculations based on Ministry of Petroleum & Natural Resources would approach OGRA for Pipeline tariff determination. Minutes of meeting attached as Annex-M.

29 2nd Task Force Meeting



The HSD in current situation is being transported through multiple sources. In our calculation of HSD IFEM charges, firstly we have considered White Oil Pipeline (WOP) to transport the product bleeding at Shikarpur, Mahmood Kot and Gatti Faisalabad. The balance of the product is then divided into two parts, one being transported through MFM line to Macheki and the other part through tank lorries to Northern Punjab and further to Tarujabba KPK. The final volumes are taken after subtracting the approximate production volumes being supplied through local refineries at different depot location. The IFEM charges are calculated based on road/pipeline rates as provided by OCAC (Annex H)

30.2 IFEM RATE JUSTIFICATION IN CURRENT SITUATION HSD

IFEM CHARGES FOR MS VOLUME WITH CPEC		
Location	Volume	Freight Rates
CTA	19,407	-
JGT	65,892	N/A
TJB	887,586	-
SRNG	200,557	0
FAO	452,246	7.102
THL	-	N/A
SH	985,831	7.102
CM	952,060	6.337
MOH	1,688,239	6.337
GATTI	526,114	5.744
HBD	113,027	6.337
KAN	93,855	-
KMT	294,968	-
SWL	616,753	-
MHK	907,966	-
SSH	563,121	-
VNB	769,599	-
SKP	620,105	-
SNG	241,338	-
DLP	321,784	-
QTA	278,611	-
KZO	-	-
KMR	2,511,924	-
Total quantity	13,002,922	-
TOTAL CHARGES 10,665,790,921		



Location	Volume	Weight	Quantity	Freight Rate	Charges
CTL	13,407				
JGT	65,832				
TJB	887,586				
SRNG	100,557				
FAQ	750,829				
THL	1,749,730				
SIH	1,694,056				
CPI	3,008,984				
MCH	1,224,387				
GATTI	1,224,387				
HBD	201,115				
KAN	93,853				
KIM	294,968				
SWL	616,753				
MHK	907,966				
SSH	563,121				
VHR	769,599				
SKP	520,105	634,566			
SNQ	241,338				
DLP	321,784				
QTA	278,611				
KZD	N/A				
KMR	2,511,934				
TOTAL	15,911,475				
TOTAL THROUGH HSD	7,949,178,604				
TOTAL THROUGH MOGAS	30,663,790,272				
TOTAL	38,612,968,876				

The rates are calculated based on product transportation through existing White Oil Pipeline and road network for both MOGAS & HSD for the reason of calculating total current IFEM charges being paid by Government of Pakistan

30.3 IFEM TOTAL CHARGES IN CURRENT SITUATION MOGAS & HSD

Location	Volume	Weight	Quantity	Freight Rate	Charges
CTL	13,407				
JGT	65,832				
TJB	887,586				
SRNG	100,557				
FAQ	750,829				
THL	1,749,730				
SIH	1,694,056				
CPI	3,008,984				
MCH	1,224,387				
GATTI	1,224,387				
HBD	201,115				
KAN	93,853				
KIM	294,968				
SWL	616,753				
MHK	907,966				
SSH	563,121				
VHR	769,599				
SKP	520,105	634,566			
SNQ	241,338				
DLP	321,784				
QTA	278,611				
KZD	N/A				
KMR	2,511,934				
TOTAL	15,911,475				
TOTAL THROUGH HSD	7,949,178,604				
TOTAL THROUGH MOGAS	30,663,790,272				
TOTAL	38,612,968,876				



Sr/No	Total IFEM	Saving through FWO Proposed	Savings Infrastructure
1	14,118,125,480	5,215,942,336	

As the above detailed calculation it's evident that the savings to Government of Pakistan given below are colossal.

Location	Volume	Freight Rates	Total Charges	FWO PL Charges
Kemant to Thallian	1,548,604	4,383	6,787,418,284	4,360,868,864
Kemant to Faisalabad	526,114	2,056	1,081,778,245	
Kemant to Macheki	2,640,299	3,287	8,678,470,071	4,541,314,280
			16,547,666,600	8,902,183,144

The throughput charges for FWO proposed Oil pipeline are taken from the financial model. The proposed pipeline caters for throughput of the product/crude to Macheki, Thallian and Tarujabba KPK. The calculations are also based on the assumption that the Metric Ton volume of MOGAS requirement for northern Punjab and KPK will be transported via pipeline, ensuring no tank Lorries for the subject purpose saving TO GOVERNMENT IN IFEM BY FWO PROPOSED PIPELINE.

30.4 IFEM RATE JUSTIFICATION IN PROPOSED FWO PIPELINE



31 Proposal for Development of Oil Jetty & Extension of White Oil Pipeline

A detail presentation was made to Chairman Port Qasim Authority along with the feasibility regarding the subject project, after number of meeting with PQA officials; a n unsolicited proposal was submitted to Port Qasim Authority according to which PQA will be paid minimum guaranteed 1.13 USD/MT royalties, which amounts to 268 Million USD over the course of the concession period for the project to which PQA agreed to undertake the expansion of petroleum products handling facilities at Port Qasim by setting up Integrated Oil terminal & Storage as proposed by Frontier Work Organization. Based on the unsolicited proposal submitted to PQA for development of Oil Jetty and Expansion Pipeline network, PQA requested FOTCO to give its consideration regarding the project/unsolicited proposal by Frontier Works Organization (FWO) since FOTCO has the first of refusal for development of any Oil related infrastructure at Port Qasim under article 3.13.3 of the Implementation Agreement dated 8th December, 1992 between FOTCO and PQA, letter attached as **Annex-I**.

32 Offer from OMC for Storage Charges at Port Qasim

After several meetings & negotiations with one of the leading Oil Marketing Company, a consensus was reached, according to which the OMC will charge 1.22 USD/MT for Storage facilities at Port Qasim.

33 Financial Model

33.1 Results

Results	
Project IRR	16.81%
Equity IRR	34.55%
Equity NPV	461
Payback Period (Years)	3.99
Pipeline Capacity Reached (Years After COD)	0.50
Jetty Capacity Reached (Years After COD)	1.50

33.2 Assumptions

Model Timing	Semi-Annual
Days in a Year	360
Months in a Year	12
Model Currency	USD
Currency Unit	0.000001
Construction Period (Months)	36
Concession Period (Years)	30
Depreciation Rate	10%
m to Inch Conversion	39.4
Total Pipeline Length (m)	883,000
Pipeline Radius (m)	0.20





Financing Assumptions	
Debt	85%
Equity	15%
Cost of Equity	10%
6-Month LIBOR	0.87%
Tenor	11
Grace Period	3
Credit Spread (including hedging & interest)	5.0%
Arrangement Fees	2.0%
Agency Fees (Mn)	1
Commitment Fees	0.50%
DSCR	1.20
Minimum DSCR	1.10

33.2.2 Financing Assumptions

Project Cost Assumptions	
Monthly Land Rental (USD/Acre)	1,500.00
Required Land (Acres)	50
Construction Cost Escalation	8%
Contingencies	2%
Design & Supervision	3%
Management & Consultancy	1%
SPVC Cost (Mn)	1
Insurance	1%
Mobilization Advance	10%
Pipeline Fill Cost	81
Cost Phasing	
Year 1	

33.2.1 Project Cost Assumptions



Revenue Assumptions				
Oil Handling Charge (USD/MT)	6.00			
Throughput Charge - Existing Pipeline (USD/MT/km)				
Throughput Charge - New Pipeline (USD/MT/km)	0.045			
Handling Charge Escalation	0%			
Throughput Charge Escalation	0%			
Handling Escalation Frequency (Years)	2			
Throughput Escalation Frequency (Years)	2			
Post Debt Escalation	0%			
Oil Handling				
Maximum Jetty Capacity (MT/Year)	9,000,000			
Annual Volume Increase (%)	0%			
MOGAS				
Base Year Demand (MT)	3,833,960	2,562,985		
Demand Increase on COD (%)	35%	8%		
Capacity Utilization	100%	20%		
Demand on COD (MT)	5,175,846	553,605		
Throughput				
Maximum Throughput	6,000,000			
Annual Throughput Increase	8%			
MOGAS				
Distance (km)	284	364	596	746
Base Year Demand (MT)	461,898	1,195,364	740,397	292,274
Demand Increase on COD (%)	35%	35%	35%	35%
Capacity Utilization	80%	80%	80%	80%
Demand on COD (MT)	498,850	1,290,993	799,629	315,656
HSD				
Base Year Demand (MT)	419,847	979,644	4,822,475	676,391
Demand Increase on COD (%)	21%	21%	21%	21%
Capacity Utilization	20%	20%	30%	55%
Demand on COD (MT)	101,603	237,074	1,750,558	450,138

33.2.4 Revenue Assumptions

OPEX Assumptions	
Operating Costs (% of EPC Cost)	2.0%
Maintenance Costs (% of Const Cost)	0.1%
Major Maintenance Costs	71
Operating Cost Growth	10%
Maintenance Cost Growth	7%
Lease Growth	7%
Lease Expense (Monthly)	0.42
Insurance (% of Revenue)	1%
Hospitality charges OMC (USD)	1.22

33.2.3 OPEX Assumptions



33.2.6 Pipeline Fill Assumptions

Pipeline Fill Assumptions	
Pipeline Volume (m3)	139,047
MOGAS %	55%
HSD %	45%
MOGAS Conversion Factor	0.75
HSD Conversion Factor	0.85
Total HSD (T)	53,025
Total MOGAS (T)	57,718
MOGAS Conversion (MT to Litre)	1,359
HSD Conversion (MT to Litre)	1,196
MOGAS Cost (USD/Litre)	0.57
HSD Cost (USD/Litres)	0.58

33.2.5 Tax Assumptions

Tax Assumptions	
Corporate Tax Rate	33%
Initial Allowance	25%
Alternate Corporate Tax	17%
Turnover Tax	1%
Tax Depreciation Rate	10%

34 Conclusion:

DCFRROR (discounted cash flow rate of return to the tune of 20.41% in dollar terms with WACC (weighted average cost of capital) considered as LIBOR that 0.65% with a spread of 6% is gauged as A+ investment opportunity. As the project is on BOO (Build, Own & Operate) basis and the financial model is designed for 45 years hence payout of 3.49 years are healthy indicators. The inflow value of the project are extremely on the conservative side including the growth rate of the petroleum product requirement and tariff structure for Oil handling at jetty, hospitality charges for storage and pipeline tariff. The O&M per considered charges considered as 3% of the Capex cost (Construction cost) is again a figure which can be reduced utilizing the effective project management technique.

The project is of national importance which shall eradicate the MOGAS movement through road transport (tank Lorries) thus saving national exchequer in IFEM award move over minimizing the adulteration chances and prompt movement of Oil in three provinces through pipeline network. The project shall also utilize the optimum capacity of existing White Oil Pipeline Network (WOP) through booster stations and dual product utilization through pigging; the minutes of meeting between PAPCO & FWO are enclosed.

The vision of providing petroleum product at the door step of OMC storage facilities along PAPCO White Oil Pipeline Network and PARCO Mahmood Kot to Macheki pipeline network and supply of product at thallain & Tarujba through extended White Oil pipeline network is a kind of step which shall in courage small OMC's to enhance the retail infrastructure for best customer utilization and finish the product shortage in the country. The petroleum product will be supplied at applicable international pricing formula which is designed to be more economical then what is being applicable in industry at this point of time.

The main thrust of the project is Quality, Speed & Efficiency.



Forecast for POL Products : 2014-15 TO 2018-19

UNITS: M. Tons

YEARS	JP-1	JP-8	JP-8 [Export] JP-1/JP-8	TOTAL	MOGAS	S.K.O.	H.S.D.	L.D.O.	F.O.	TOTAL
2014-15	699,000	97,000	144,000	940,000	4,638,136	182,000	7,270,000	44,000	9,000,000	22,074,136
2015-16	705,990	*	145,440	851,430	5,333,858	180,000	7,415,400	42,000	9,000,000	22,822,686
2016-17	713,050	*	146,894	859,944	5,867,242	180,000	7,563,708	42,000	9,000,000	23,512,894
2017-18	720,180	*	148,363	868,544	6,453,968	180,000	7,714,882	42,000	9,000,000	24,259,492
2018-19	727,382	*	149,847	877,229	7,099,362	180,000	7,869,282	42,000	9,000,000	25,067,873

Future Demand Projections

2013-14 (Actuals)	704,258	61,082	141,796	907,126	3,865,113	176,357	6,897,895	49,767	9,552,883	21,448,941
2012-13 (Actuals)	666,539	1,766	135,218	803,523	3,340,537	166,308	6,829,486	35,941	8,473,060	19,648,853
2011-12 (Actuals)	688,410	118,415	133,109	949,934	2,753,568	151,957	6,836,187	28,764	8,376,013	19,095,413
2010-11 (Actuals)	702,985	641,940	153,228	1,496,153	2,280,598	162,106	6,931,420	48,501	9,071,868	19,972,646
2009-10 (Actuals)	676,002	631,275	150,464	1,457,741	1,929,018	163,973	7,424,879	74,407	9,246,713	20,296,731
2008-09 (Actuals)	623,443	419,493	152,234	1,195,230	1,521,415	179,224	7,649,772	88,733	8,672,891	18,707,265
2007-08 (Actuals)	603,328	330,827	134,653	1,068,808	1,456,709	228,622	8,245,998	127,406	7,596,368	17,723,911
2006-07 (Actuals)	709,084	303,025	175,543	1,187,652	1,151,682	210,895	7,285,186	150,154	7,473,826	17,459,377
2005-06 (Actuals)	767,219	333,525	156,328	1,257,072	1,183,458	235,591	7,375,651	134,195	5,116,806	15,302,573

JP-1: 1% growth has been taken from 2015-16 and onwards.

JP-8 (Defence): 1% growth has been taken from 2015-16 and onwards.

MS: 20% growth for 2014-15, 15% growth for 2015-16 and 10% growth has been taken for 2016-17 and onwards.

HSD: 2% growth has been taken for 2015-16 and onwards.

SKO: Demand has been fixed at 15,000 MTs per month from 2015-16 and onwards.

LDX: Demand has been fixed at 3,500 MTs per month from 2015-16 and onwards.

FO: Demand has been fixed due to financial constraints faced by PFCO.

Note:

The above forecasts are best estimates and the actuals may vary based on actual conditions.

SOURCE: OCAC

Oil Companies Advisory Council

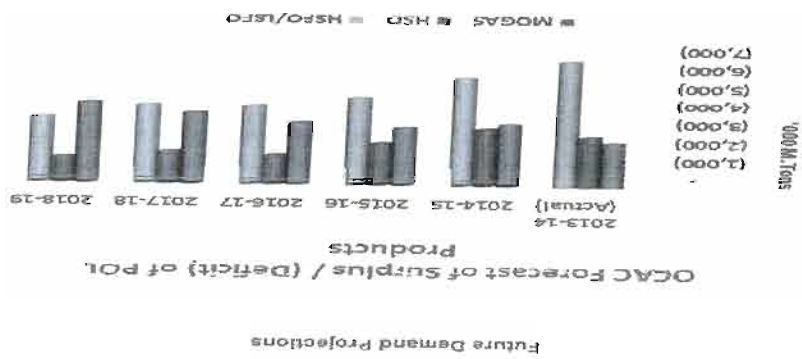


**OCAC's FORECAST OF DEFICIT/SURPLUS OF PETROLEUM PRODUCTS
WITH EXISTING & ADDITIONAL REFINERIES: 2014-15 TO 2018-19**

2013-14	Sales	MOGAS	HSD	HSFO/L SFO	JP-1/JLP-S	SKO	LPO
(Actuals)	Production	1,584,238	4,316,196	2,918,154	785,460	174,647	52.8
	(Deficit)	(2,280,875)	(2,581,459)	(6,636,729)	(121,666)	(1,710)	3.1
2014-15	Demand	4,638,136	7,270,000	9,060,000	940,000	182,000	44.0
	Existing Refineries Production	1,407,000	4,300,800	3,308,100	773,000	142,100	57.6
	Surplus / (Deficit)	(3,231,136)	(2,969,100)	(5,691,900)	(167,000)	(39,900)	13.5
2015-16	Demand	5,333,856	7,416,400	9,000,000	851,430	180,000	42.0
	Existing Refineries Production	2,325,000	5,245,500	4,423,200	669,000	148,100	20.6
	Surplus / (Deficit)	(3,008,856)	(2,169,900)	(4,576,800)	17,570	(31,900)	(21.4)
2016-17	Demand	5,867,242	7,553,708	9,000,000	859,944	180,000	42.0
	Existing Refineries Production	2,610,000	6,072,500	4,883,200	1,086,000	155,100	21.8
	Surplus / (Deficit)	(3,257,242)	(1,481,208)	(4,116,800)	226,056	(24,900)	(20.4)
2017-18	Demand	6,453,966	7,714,962	9,000,000	868,544	180,000	42.0
	Existing Refineries Production	2,710,100	6,072,500	4,883,200	1,086,000	155,100	21.6
	Surplus / (Deficit)	(3,743,866)	(1,642,462)	(4,116,800)	217,456	(24,900)	(20.4)
2018-19	Demand	7,099,362	7,869,262	9,000,000	877,229	180,000	42.0
	Existing Refineries Production	2,875,100	6,572,500	5,583,200	1,086,000	155,100	21.6
	Surplus / (Deficit)	(4,224,262)	(1,296,762)	(3,416,800)	206,771	(24,900)	(20.4)

SOURCE: OCAC & Refineries.





Pakistan Oil Report 2013-14

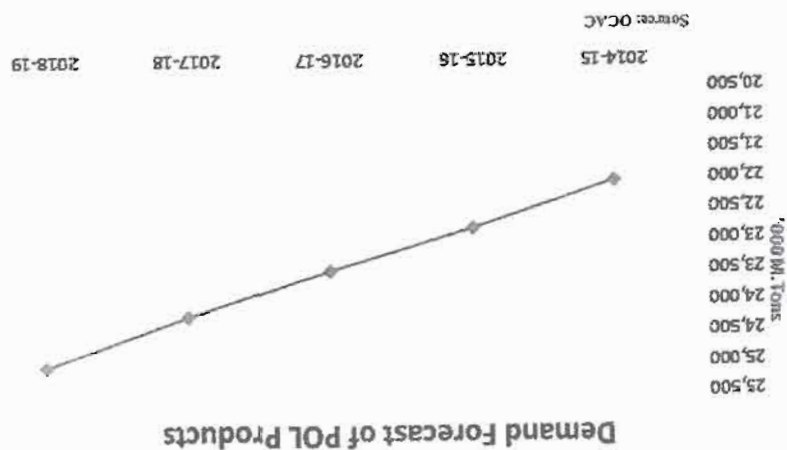
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Oil Companies Advisory Council



Future Demand Projections

The steady economic recovery over the recent past on the back of fiscal and monetary initiatives translated into a eight years CAGR of 4.31 percent of POL products domestic consumption. The forecasted four years CAGR of 3.23 percent is derived from a mix of expected resurgence of domestic economy and a lower base effect.



Product-wise forecast analysts depicts a five year prospective CAGR for MOGAS of 12.93 percent on the back of depleting supplies of substitute fuel in the form of natural gas. HSD is expected to exhibit a five years prospective CAGR of 2.67 percent, while for domestic power sector conversion to cost effective fuels over the horizon in line with government policies.

The deficit of domestic throughput in comparison to domestic demand for MOGAS is expected to increase on average five years prospective CAGR of 13.12 percent on the back of constrained refining capacity for this product. HSD and HSFO/LSFO deficit is expected to retract over the next five years with a prospective CAGR of -12.86 percent and -12.43 percent due to expected increased production of HSD by domestic refineries and stagnant demand of HSFO/LSFO due to addition of more viable generation capacity in domestic power sector.



PAK-ARAB PIPELINE COMPANY LIMITED

PAPCO

Minutes Prepared By: S. Zakir Hussain

Meeting # 1

Subject: FWO's strategic initiative to meet local and regional POL demand.

Date of issue: December 07, 2015

Venue: Board Room, PAPCO Corporate HQ Karachi

Participants:

Feroze J. Cawaji - CEO(PAPCO)	FJC	Salman Qaisrani - Dir (BOT) - EW	SQ
S. Zakir Hussain - Advisor (PAPCO)	SZH		
S. Zaveri - GM(M&C) PAPCO	SZH		
Sohail Sulaiman - CTO(PAPCO)	SJ		

Distribution: All Participants

Action By: Action Date

Follow up

1. Mr. Salman Qaisrani Director (BOT) FWO explained the purpose of his visit. He said that FWO is planning to enter into bulk oil business and for this purpose FWO will be developing required Petroleum infrastructure. The main aim of this exercise is to meet country's strategic requirements. In addition to local requirements Frontier Works Organization (FWO) also plans to meet the demand of surrounding land locked countries. He said that plan will be implemented on top priority in three Phases as follows:
 - PHASE-I
Develop an "Oil Village" at Thallian with storage facilities to meet the requirements of upper Punjab. OMG shall be asked to shift their distribution centre to Thallian. Connect Keamari and Port Qasim ports through a new product pipeline. Construct storage tanks at Port Qasim and connect with PAPCO White Oil Pipeline, Keamari and FOTCO oil jetties. A new oil jetty at Port Qasim is also included in this phase.
 - PHASE-II
Connect Thallian and Faruqia storage tanks with PAPCO/PAPCO White Oil Pipeline through a pipeline link from Faisalabad.
 - PHASE-III
Develop an oil pipeline network between Gwardar and Kashgar with intermediate pumping and storage terminals to meet Pakistan's strategic requirement and demand of neighboring countries.
5. Mr. Salman Qaisrani further states that FWO can provide funds for PAPCO's Mogas Project and assist PAPCO in getting necessary approvals.
6. CTO (PAPCO) gave an overview of current White Oil Pipeline (WOP) facilities and future PAPCO projects. He said that WOP is connected with FOTCO's jetty at Port Qasim. It has storage and pumping facilities at Port Qasim, Shikarpur and Mehran Kot. Currently HSD is being pumped through WOP. Major part of HSD is received at Port Qasim through FOTCO jetty. Small volumes are also received through PAPCO KPI.



Page 3 of 3



[Signature]
 01/12/15
 Ferose J. Qureshi
 Chief Executive (PAPCO)

[Signature]
 10/12
 [Salman Karsam]
 Director BOT

HQ FWO 509 Kashmir Road
 MA Bazar Rawalpindi

pipeline and from local OMC terminals at Port Qasim. ISD is delivered to OMC terminals at Shikarpur and Mehrwood Kot through pipeline connection. Current capacity of WOP is 810 million Ton per annum which can be increased to 120 million tons by installing additional booster stations. It further said that PAPCO is currently working on converting WOP for multiproduct use for pumping water gasoline in addition to ISD. Technical and commercial feasibility of this conversion has already been completed by a foreign consultant for the project. additional ISD and Mogas storage shall be built at Port Qasim, Shikarpur and Mehrwood Kot including truck loading facilities at Shikarpur and Mehrwood Kot. He further stated that FEPD and FPC tender documents are nearly ready and prequalification of FPC contractor is under way. To meet project funding needs, PAPCO is trying to recover Rs 4.1 billion from Government on account of shortfall in guaranteed throughput. PAPCO also needs revised tariff for Motor Gasoline for which a proposal shall be shortly put-up before the Government.

Commenting on FWO plans CEO (PAPCO) said that new oil jetty at Port Qasim and pipeline from Faisalabad to Thabian and Farquhar will help streamline the oil movement and enhance WOP throughput to its maximum capacity. He further said that he was within 75-80% of the about FWO funding offer.

In the end, it was agreed that PAPCO will issue the minutes of the meeting as soon as possible based on which FWO will send a formal response to PAPCO with their proposals/inputs.

40 Annexure-F.

Financial Model



Control

Revenue	
Project IRR	15.81%
Equity IRR	34.55%
Equity NPV	461
Payback Period (Years)	3.99
Pipeline Capacity Reached (Years After COD)	0.50
Heavy Capacity Reached (Years After COD)	1.50

Project Ratios		
	Minimum	Average
DSCR	1.20	1.24
LICR	1.97	3.96
PICR	3.23	8.63
Current Ratio	1.38	2.43

Verification	
IDC Fees Check	TRUE
DSRA Funded Check	TRUE
Balance Sheet Check	TRUE
Valuation Check	TRUE
Cashflow Negative	TRUE
Default Check	TRUE
Model OK	TRUE

Throughput Rates (USD/MT)		
	Length (Km)	Charge
MHD - GA1	284	-
MHD - MCK	364	-
MHD - THL	596	26.82
MHD - TIR	746	33.57

Sensitivity

Demand Assumptions

OCAC

Debt Component

85%

Revenue Assumptions

Oil Handling Charge (USD/MT)	6.06
Throughput Charge (USD/MT/Km) - Existing Pipeline	-
Throughput Charge (USD/MT/Km) - FWD Pipeline	0.005
Handling Charge Escalation	0.0%
Throughput Charge Escalation	0.0%
Handling Charge Escalation Frequency	2
Throughput Charge Escalation Frequency	2
Post Debt Escalation Frequency	2
Post Debt Escalation	0%

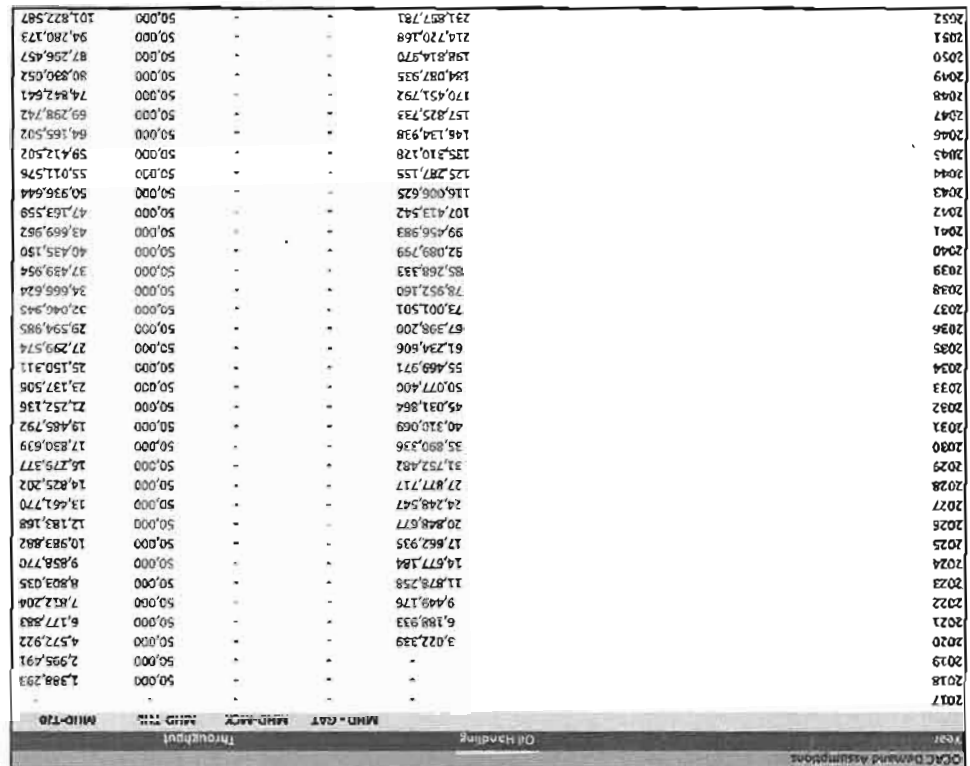




OP&P Assumptions			
Operating Costs (% of EPC Cost)	2.0%		
Maintenance Costs (% of Const Cost)	0.1%		
Major Maintenance Costs	7.1		
Operating Cost Growth	10%		
Maintenance Cost Growth	7%		
Lease Growth	7%		
Lease Expense (Monthly)	0.42		
Insurance (% of Revenue)	1%		
Hospitality charges OMC (USD)	1.22		
Revenue Assumptions			
Oil Handling Charge (USD/MT)	6.00		
Throughput Charge - Existing Pipeline (USD/MT/Km)	-		
Throughput Charge - New Pipeline (USD/MT/Km)	0.05		
Handling Charge Escalation	0%		
Throughput Charge Escalation	0%		
Handling Escalation Frequency (Years)	2		
Throughput Escalation Frequency (Years)	2		
Port Debt Escalation	0%		
Off Handling			
Maximum Lorry Capacity (MT/Year)	9,000,000		
Annual Volume Increase (%)	0%		
MOGAS			
Base Year Demand (MT)	2,562,985		
Demand Increase on COO (%)	8%		
Capacity Utilization	100%		
Demand on COO (MT)	5,175,846		
Throughput			
Maximum Throughput	6,000,000		
Annual Throughput Increase	8%		
MOGAS - GAT			
MHD - THL	MHD - MICX	MHD - TJB	
Distance (Km)	264	364	596
Base Year Demand (MT)	461,898	1,195,364	740,597
Demand Increase on COO (%)	35%	35%	35%
Capacity Utilization	80%	80%	80%
Demand on COO (MT)	498,850	1,290,993	799,629
Base Year Demand (MT)	419,847	979,644	4,822,475
Demand Increase on COO (%)	21%	21%	21%
Capacity Utilization	20%	20%	20%
Demand on COO (MT)	101,603	237,074	1,750,558
Base Year Demand (MT)	450,138		

Financing Assumptions	
Debt	85%
Equity	15%
Cost of Equity	20%
e-Minimum IBCR	0.87%
Tenor	11
Grace Period	3
Credit Spread (including hedging & interest)	5.0%
Arrangement Fee	2.0%
Agency Fees (Mn)	1
Commitment Fee	0.50%
DSCR	1.20
Minimum DSCR	1.10

Project Cost Assumptions	
Manpower Land Rental (USD/Acre)	1,500.00
Required Land (Acres)	50
Construction Cost Escalation	8%
Contingencies	2%
Design & Supervision	3%
Management & Consultancy	1%
SPVC Cost (Mn)	1
Insurance	1%
Mobilization Advance	10%
Pipeline Fill Cost	81
Cost Piping	
Year 1	
Model Timing	350
Months in a Year	12
Model Currency	USD
Current Unit	0.000001
Construction Period (Months)	36
Concession Period (Years)	30
Depreciation Rate	10%
m to Inch Conversion	39.4
Total Pipeline Length (m)	858,000
Pipeline Radius (m)	0.20



33%	Corporate Tax Rate
25%	Initial Allowance
17%	Alternate Corporate Tax
1%	Turnover Tax
10%	Tax Depreciation Rate
1.13	Royalties Charges
1.25	1-5 Years
1.4	6-11 Years
1.55	11-15 Years
1.7	16-20 Years
1.85	21-25 Years
	26-30 Years
139,047	Pipeline Fill Assumptions
55%	MOGAS %
45%	MSD %
0.75	MOGAS Conversion Factor
0.65	MSD Conversion Factor
53,025	Total MSD (M)
57,718	Total MOGAS (M)
1,359	MOGAS Conversion (MT to Ltr/c)
1,196	MSD Conversion (MT to Ltr/c)
0.57	MOGAS Cost (USD/Ltr/c)
0.58	MSD Cost (USD/Ltr/c)

Sources & Uses

Start Date	1-Jan-17	1-Feb-17	1-Mar-17	1-Apr-17	1-May-17	1-Jun-17	1-Jul-17	1-Aug-17	1-Sep-17	1-Oct-17	1-Nov-17	1-Dec-17
End Date	31-Dec-16	31-Jan-17	28-Feb-17	31-Mar-17	30-Apr-17	31-May-17	30-Jun-17	31-Jul-17	31-Aug-17	30-Sep-17	31-Oct-17	30-Nov-17
Year	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017

Land Cost	2.00
EPC Cost	473
Mobilization Advance	10%
Development Cost	25

Uses of Funds

Land Acquisition	-	-	-	-	-	-	-	-	-	-	-	-
Construction Expenditure	-	-	-	-	-	-	-	-	-	-	-	-
Mobilization Advance	-	-	-	-	-	-	-	-	-	-	-	-
Development Expenditure	2	2	2	2	2	2	2	2	2	2	2	2
DSRA Funded	-	-	-	-	-	-	-	-	-	-	-	-
IDC	-	-	-	-	-	-	-	-	-	-	-	-
Arrangement Fees	-	-	-	-	-	-	-	-	-	-	-	-
Agency Fees	-	-	-	-	-	-	-	-	-	-	-	-
Commitment Fees	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	2	2	2	2	2	2	2	2	2	2	2

Funding Needs

Land Acquisition	-	-	-	-	-	-	-	-	-	-	-	-
Construction Expenditures	-	-	-	-	-	-	-	-	-	-	-	-
Mobilization Advance	-	-	-	-	-	-	-	-	-	-	-	-
Development Expenditure Financed	-	-	-	-	-	-	-	-	-	-	-	-
IDC Capitalized	-	-	-	-	-	-	-	-	-	-	-	-
Financing Cost & Fees Capitalized	-	-	-	-	-	-	-	-	-	-	-	-
DSRA	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-

Aggregate Funding Needs	688																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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Sources of Funds

Debt	-	-	-	-	-	-	-	-	-	-	-	-
Equity	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-
Sources Less Uses	-	-	-	-	-	-	-	-	-	-	-	-

Project Expenditures



1-Jan-18 1-Feb-18 1-Mar-18 1-Apr-18 1-May-18 1-Jun-18 1-Jul-18 1-Aug-18 1-Sep-18 1-Oct-18 1-Nov-18 1-Dec-18 1-Jan-19 1-Feb-19 1-Mar-19 1-Apr-19 1-May-19 1-Jun-19 1-Jul-19
 31-Jan-18 28-Feb-18 31-Mar-18 30-Apr-18 31-May-18 30-Jun-18 31-Jul-18 31-Aug-18 30-Sep-18 31-Oct-18 30-Nov-18 31-Dec-18 31-Jan-19 28-Feb-19 31-Mar-19 30-Apr-19 31-May-19 30-Jun-19 31-Jul-19
 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2019 2019 2019 2019 2019 2019 2019

0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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72	13	13	13	13	13	16	13	13	13	13	13	13	13	13	13	13	13	13

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
96	12	12	12	12	12	22	12	12	12	12	12	12	12	12	12	25	12	28

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81	10	10	10	10	10	19	10	10	10	10	10	10	10	10	10	24	10	10
14	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	4	4	2
96	12	12	12	12	12	22	12	12	12	12	12	12	12	12	12	28	12	12



1-Aug-19 1-Sep-19 1-Oct-19 1-Nov-19 1-Dec-19 1-Jan-20 1-Feb-20 1-Mar-20 1-Apr-20 1-May-20 1-Jun-20 1-Jul-20 1-Aug-20 1-Sep-20 1-Oct-20 1-Nov-20 1-Dec-20 1-Jan-21 1-Jul-21
 31-Aug-19 30-Sep-19 31-Oct-19 30-Nov-19 31-Dec-19 31-Jan-20 29-Feb-20 31-Mar-20 30-Apr-20 31-May-20 30-Jun-20 31-Jul-20 31-Aug-20 30-Sep-20 31-Oct-20 30-Nov-20 31-Dec-20 30-Jan-21 31-Dec-21
 2019 2019 2019 2019 2019 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2021 2021

0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	-	-
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	-	-
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3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	-	-
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1-Jan-22 1-Jul-22 1-Jan-23 1-Jul-23 1-Jan-24 1-Jul-24 1-Jan-25 1-Jul-25 1-Jan-26 1-Jul-26 1-Jan-27 1-Jul-27 1-Jan-28 1-Jul-28 1-Jan-29 1-Jul-29 1-Jan-30 1-Jul-30 1-Jan-31 1-Jul-31
30-Jun-22 31-Dec-22 30-Jun-23 31-Dec-23 30-Jun-24 31-Dec-24 30-Jun-25 31-Dec-25 30-Jun-26 31-Dec-26 30-Jun-27 31-Dec-27 30-Jun-28 31-Dec-28 30-Jun-29 31-Dec-29 30-Jun-30 31-Dec-30 30-Jun-31 31-Dec-31
2022 2022 2023 2023 2024 2024 2025 2025 2026 2026 2027 2027 2028 2028 2029 2029 2030 2030 2031 2031

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1-Jan-52 1-Jul-52 1-Jan-53 1-Jul-53 1-Jan-54 1-Jul-54 1-Jan-55 1-Jul-55 1-Jan-56 1-Jul-56 1-Jan-57 1-Jul-57 1-Jan-58 1-Jul-58 1-Jan-59 1-Jul-59 1-Jan-60 1-Jul-60 1-Jan-61 1-Jul-61
30-Jun-52 31-Dec-52 30-Jun-53 31-Dec-53 30-Jun-54 31-Dec-54 30-Jun-55 31-Dec-55 30-Jun-56 31-Dec-56 30-Jun-57 31-Dec-57 30-Jun-58 31-Dec-58 30-Jun-59 31-Dec-59 30-Jun-60 31-Dec-60 30-Jun-61 31-Dec-61
2052 2052 2053 2053 2054 2054 2055 2055 2056 2056 2057 2057 2058 2058 2059 2059 2060 2060 2061 2061

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-	-	-	-
473	473	473	-
0.00%	0.00%	0.00%	-
-	-	-	-
25	25	25	-
-	-	-	-
-	-	-	-
1	1	1	-
-	-	-	-
-	-	-	-
-	-	-	-
2.00%	2.00%	2.00%	-
-	-	-	-
2.94%	2.94%	2.94%	-
-	-	-	-
-	-	-	-
-	-	-	-
0.50%	0.50%	0.50%	-
0.25%	0.25%	0.25%	-
-	-	-	-
4.38	4.38	4.38	-
-	-	-	-
-	-	-	-



Valuation

Start Date 1-Jan-17 1-Feb-17 1-Mar-17 1-Apr-17 1-May-17 1-Jun-17 1-Jul-17 1-Aug-17 1-Sep-17 1-Oct-17 1-Nov-17
 End Date 31-Dec-16 31-Jan-17 28-Feb-17 31-Mar-17 30-Apr-17 31-May-17 30-Jun-17 31-Jul-17 31-Aug-17 30-Sep-17 31-Oct-17 30-Nov-17
 Year 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017

Free Cashflow to Firm (FCFF)

Cashflow From Operations
 Add: Interest*(1-Tax Rate)
 Less: Fixed Capital Investment

FCFF

Free Cashflow to Equity (FCE)

FCFF

Less: Interest*(1-Tax Rate)
 Less: Net Borrowings

FCE

WACC 4.84%

Cost of Equity 10.0%
 Cost of Debt 3.9%

NPV 911
 IRR 16.81%

Equity NPV 461
 Equity IRR 34.55%

Valuation Check

TRUE



1-Dec-17	1-Jan-18	1-Feb-18	1-Mar-18	1-Apr-18	1-May-18	1-Jun-18	1-Jul-18	1-Aug-18	1-Sep-18	1-Oct-18	1-Nov-18	1-Dec-18	1-Jan-19	1-Feb-19	1-Mar-19	1-Apr-19	1-May-19
31-Dec-17	31-Jan-18	28-Feb-18	31-Mar-18	30-Apr-18	31-May-18	30-Jun-18	31-Jul-18	31-Aug-18	30-Sep-18	31-Oct-18	30-Nov-18	31-Dec-18	31-Jan-19	28-Feb-19	31-Mar-19	30-Apr-19	31-May-19
2017	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2019	2019	2019	2019	2019

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	96	12	12	12	12	22	12	12	12	12	12	25	12	12	12	12	12
-	(96)	(12)	(12)	(12)	(12)	(22)	(12)	(12)	(12)	(12)	(12)	(25)	(12)	(12)	(12)	(12)	(12)

-	(96)	(12)	(12)	(12)	(12)	(22)	(12)	(12)	(12)	(12)	(12)	(25)	(12)	(12)	(12)	(12)	(12)
-	81	10	10	10	10	19	10	10	10	10	10	22	10	10	10	10	10
-	(14)	(2)	(2)	(2)	(2)	(3)	(2)	(2)	(2)	(2)	(2)	(4)	(2)	(2)	(2)	(2)	(2)



1-Jun-19	1-Jul-19	1-Aug-19	1-Sep-19	1-Oct-19	1-Nov-19	1-Dec-19	1-Jan-20	1-Feb-20	1-Mar-20	1-Apr-20	1-May-20	1-Jun-20	1-Jul-20	1-Aug-20	1-Sep-20	1-Oct-20	1-Nov-20
30-Jun-19	31-Jul-19	31-Aug-19	30-Sep-19	31-Oct-19	30-Nov-19	31-Dec-19	31-Jan-20	29-Feb-20	31-Mar-20	30-Apr-20	31-May-20	30-Jun-20	31-Jul-20	31-Aug-20	30-Sep-20	31-Oct-20	30-Nov-20
2019	2019	2019	2019	2019	2019	2019	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	12	12	12	12	12	31	12	12	12	12	12	34	12	12	12	12	12
(28)	(12)	(12)	(12)	(12)	(12)	(31)	(12)	(12)	(12)	(12)	(12)	(34)	(12)	(12)	(12)	(12)	(12)

(28)	(12)	(12)	(12)	(12)	(12)	(31)	(12)	(12)	(12)	(12)	(12)	(34)	(12)	(12)	(12)	(12)	(12)
24	10	10	10	10	10	26	10	10	10	10	10	29	10	10	10	10	10
(4)	(2)	(2)	(2)	(2)	(2)	(5)	(2)	(2)	(2)	(2)	(2)	(5)	(2)	(2)	(2)	(2)	(2)



1-Dec-20	1-Jan-21	1-Jul-21	1-Jan-22	1-Jul-22	1-Jan-23	1-Jul-23	1-Jan-24	1-Jul-24	1-Jan-25	1-Jul-25	1-Jul-25	1-Jan-26	1-Jul-26	1-Jan-27	1-Jul-27	1-Jan-28	1-Jul-28	1-Jan-29
31-Dec-20	30-Jun-21	31-Dec-21	30-Jun-22	31-Dec-22	30-Jun-23	31-Dec-23	30-Jun-24	31-Dec-24	30-Jun-25	31-Dec-25	30-Jun-26	31-Dec-26	30-Jun-27	31-Dec-27	30-Jun-28	31-Dec-28	30-Jun-29	
2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026	2027	2027	2028	2028	2029	

-	67	76	73	74	74	74	75	75	75	76	76	75	74	74	73	72	70
-	11	16	9	8	7	6	5	3	2	1	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(107)	78	92	83	82	81	80	79	78	78	77	76	75	74	74	73	72	70
-------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

(107)	78	92	83	82	81	80	79	78	78	77	76	75	74	74	73	72	70
-------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

(107)	78	92	83	82	81	80	79	78	78	77	76	75	74	74	73	72	70
-	11	16	9	8	7	6	5	3	2	1	-	-	-	-	-	-	-
91	(53)	(61)	(59)	(59)	(60)	(60)	(61)	(62)	(62)	(47)	-	-	-	-	-	-	-

(16)	14	15	15	14	14	14	14	13	13	28	76	75	74	74	73	72	70
------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----



1-Jul-29	1-Jan-30	1-Jul-30	1-Jan-31	1-Jul-31	1-Jan-32	1-Jul-32	1-Jan-33	1-Jul-33	1-Jan-34	1-Jul-34	1-Jan-35	1-Jul-35	1-Jan-36	1-Jul-36	1-Jan-37	1-Jul-37	1-Jan-38
31-Dec-29	30-Jun-30	31-Dec-30	30-Jun-31	31-Dec-31	30-Jun-32	31-Dec-32	30-Jun-33	31-Dec-33	30-Jun-34	31-Dec-34	30-Jun-35	31-Dec-35	30-Jun-36	31-Dec-36	30-Jun-37	31-Dec-37	30-Jun-38
2029	2030	2030	2031	2031	2032	2032	2033	2033	2034	2034	2035	2035	2036	2036	2037	2037	2038

69	68	67	(2)	(6)	65	63	62	61	60	59	57	56	55	54	52	51	49
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	68	67	(2)	(6)	65	63	62	61	60	59	57	56	55	54	52	51	49
69	68	67	(2)	(6)	65	63	62	61	60	59	57	56	55	54	52	51	49
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	68	67	(2)	(6)	65	63	62	61	60	59	57	56	55	54	52	51	49



1-Jul-38 1-Jan-39 1-Jul-39 1-Jan-40 1-Jul-40 1-Jan-41 1-Jul-41 1-Jan-42 1-Jul-42 1-Jan-43 1-Jul-43 1-Jan-44 1-Jul-44 1-Jan-45 1-Jul-45 1-Jan-46 1-Jul-46 1-Jan-47
 31-Dec-38 30-Jun-39 31-Dec-39 30-Jun-40 31-Dec-40 30-Jun-41 31-Dec-41 30-Jun-42 31-Dec-42 30-Jun-43 31-Dec-43 30-Jun-44 31-Dec-44 30-Jun-45 31-Dec-45 30-Jun-46 31-Dec-46 30-Jun-47
 2038 2039 2039 2040 2040 2041 2041 2042 2042 2043 2043 2044 2044 2045 2045 2046 2046 2047

47	46	44	42	40	38	36	34	32	29	27	24	22	19	16	13	10	7
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

47	46	44	42	40	38	36	34	32	29	27	24	22	19	16	13	10	7
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



1-Jul-47	1-Jan-48	1-Jul-48	1-Jan-49	1-Jul-49	1-Jan-50	1-Jul-50	1-Jan-51	1-Jul-51	1-Jan-52	1-Jul-52	1-Jan-53	1-Jul-53	1-Jan-54	1-Jul-54	1-Jan-55	1-Jul-55	1-Jan-56
31-Dec-47	30-Jun-48	31-Dec-48	30-Jun-49	31-Dec-49	30-Jun-50	31-Dec-50	30-Jun-51	31-Dec-51	30-Jun-52	31-Dec-52	30-Jun-53	31-Dec-53	30-Jun-54	31-Dec-54	30-Jun-55	31-Dec-55	30-Jun-56
2047	2048	2048	2049	2049	2050	2050	2051	2051	2052	2052	2053	2053	2054	2054	2055	2055	2056

3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Income Statement

Start Date	1-Jan-17	1-Feb-17	1-Mar-17	1-Apr-17	1-May-17	1-Jun-17	1-Jul-17	1-Aug-17	1-Sep-17	1-Oct-17	1-Nov-17
End Date	31-Dec-16	31-Jan-17	28-Feb-17	31-Mar-17	30-Apr-17	31-May-17	30-Jun-17	31-Jul-17	30-Aug-17	31-Oct-17	30-Nov-17
Year	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017
Revenue	-	-	-	-	-	-	-	-	-	-	-
Less: Direct Operating Costs	-	-	-	-	-	-	-	-	-	-	-
Gross Profit	-	-	-	-	-	-	-	-	-	-	-
Less: OPEX											
Maintenance Costs	-	-	-	-	-	-	-	-	-	-	-
Major Maintenance Costs	-	-	-	-	-	-	-	-	-	-	-
Lease Expense	-	-	-	-	-	-	-	-	-	-	-
Insurance	-	-	-	-	-	-	-	-	-	-	-
Funding Costs	-	-	-	-	-	-	-	-	-	-	-
Hospitality charges	-	-	-	-	-	-	-	-	-	-	-
POA charges	-	-	-	-	-	-	-	-	-	-	-
EBITDA	-	-	-	-	-	-	-	-	-	-	-
Less: Depreciation	-	-	-	-	-	-	-	-	-	-	-
Less: Depreciation on IDC	-	-	-	-	-	-	-	-	-	-	-
Less: Amortization of Fees	-	-	-	-	-	-	-	-	-	-	-
EBIT	-	-	-	-	-	-	-	-	-	-	-
Less: Interest Expense	-	-	-	-	-	-	-	-	-	-	-
EBT	-	-	-	-	-	-	-	-	-	-	-
Less: Taxes	-	-	-	-	-	-	-	-	-	-	-
Net Income	-	-	-	-	-	-	-	-	-	-	-
Accumulated Retained Earnings	-	-	-	-	-	-	-	-	-	-	-



1-Dec-20	1-Jan-21	1-Jul-21	1-Jan-22	1-Jul-22	1-Jan-23	1-Jul-23	1-Jan-24	1-Jul-24	1-Jan-25	1-Jul-25	1-Jan-26	1-Jul-26	1-Jan-27	1-Jul-27	1-Jan-28	1-Jul-28	1-Jan-29
31-Dec-20	30-Jun-21	31-Dec-21	30-Jun-22	31-Dec-22	30-Jun-23	31-Dec-23	30-Jun-24	31-Dec-24	30-Jun-25	31-Dec-25	30-Jun-26	31-Dec-26	30-Jun-27	31-Dec-27	30-Jun-28	31-Dec-28	30-Jun-29
2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026	2027	2027	2028	2028	2029
-	119	119	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
-	7	8	8	8	9	9	10	10	11	11	12	12	13	13	14	15	16
-	112	111	120	119	119	118	118	117	117	116	116	115	115	114	113	113	112

-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
-	3	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	6
-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
-	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	4
-	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4
-	102	101	109	108	107	107	106	106	105	104	103	103	102	101	100	99	99
-	25	24	23	21	20	19	18	17	17	16	15	14	13	13	12	12	11
-	3	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1
-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	-
-	70	71	80	81	81	81	82	82	82	83	83	83	83	83	82	82	86
-	17	16	14	12	10	9	7	5	3	1	-	-	-	-	-	-	-
-	53	55	66	68	70	73	75	77	79	81	83	83	83	83	82	82	86
-	17	9	22	23	23	24	25	25	26	27	27	27	27	27	27	27	23
-	35	46	44	46	47	49	50	52	53	54	55	55	55	55	55	55	58
-	35	81	125	171	218	267	317	369	422	476	532	587	643	698	753	808	866



1-Jul-29	1-Jan-30	1-Jul-30	1-Jan-31	1-Jul-31	1-Jan-32	1-Jul-32	1-Jan-33	1-Jul-33	1-Jan-34	1-Jul-34	1-Jan-35	1-Jul-35	1-Jan-36	1-Jul-36	1-Jan-37	1-Jul-37	1-Jan-38
31-Dec-29	30-Jun-30	31-Dec-30	30-Jun-31	31-Dec-31	30-Jun-32	31-Dec-32	30-Jun-33	31-Dec-33	30-Jun-34	31-Dec-34	30-Jun-35	31-Dec-35	30-Jun-36	31-Dec-36	30-Jun-37	31-Dec-37	30-Jun-38
2029	2030	2030	2031	2031	2032	2032	2033	2033	2034	2034	2035	2035	2036	2036	2037	2037	2038
128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
16	17	18	19	20	21	22	23	24	25	26	28	29	30	32	33	35	37
111	110	110	109	108	107	106	105	104	102	101	100	99	97	96	94	93	91

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
-	-	-	95	98	-	-	-	-	-	-	-	-	-	-	-	-	-
6	6	6	7	7	7	7	8	8	8	8	9	9	9	10	10	10	11
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5

98	97	96	(9)	(5)	92	91	89	87	86	84	82	81	79	77	75	73	71
10	10	9	9	9	8	8	7	7	7	6	6	6	5	5	5	5	4
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	86	85	(10)	(14)	83	82	81	80	79	77	76	75	73	72	70	68	66

86	86	85	(10)	(14)	83	82	81	80	79	77	76	75	73	72	70	68	66
28	28	28	1	1	27	27	27	26	26	26	25	25	24	24	23	22	22
58	57	57	(11)	(15)	56	55	54	53	53	52	51	50	49	48	47	46	44
923	981	1,038	1,026	1,011	1,066	1,122	1,176	1,229	1,281	1,333	1,384	1,434	1,483	1,531	1,578	1,623	1,667



1-Jul-38	1-Jan-39	1-Jul-39	1-Jan-40	1-Jul-40	1-Jan-41	1-Jul-41	1-Jan-42	1-Jul-42	1-Jan-43	1-Jul-43	1-Jan-44	1-Jul-44	1-Jan-45	1-Jul-45	1-Jan-46	1-Jul-46	1-Jan-47
31-Dec-38	30-Jun-39	31-Dec-39	30-Jun-40	31-Dec-40	30-Jun-41	31-Dec-41	30-Jun-42	31-Dec-42	30-Jun-43	31-Dec-43	30-Jun-44	31-Dec-44	30-Jun-45	31-Dec-45	30-Jun-46	31-Dec-46	30-Jun-47
2038	2039	2039	2040	2040	2041	2041	2042	2042	2043	2043	2044	2044	2045	2045	2046	2046	2047
128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
39	40	42	44	47	49	51	54	56	59	62	65	68	72	75	79	83	87
89	87	85	83	81	79	76	74	71	68	66	63	59	56	53	49	45	41

1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
11	11	12	12	13	13	14	14	15	15	16	16	17	17	18	18	19	20
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4
5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6

68	66	63	61	58	55	52	49	46	42	39	35	31	27	23	19	14	9
4	4	4	4	3	3	3	3	3	3	2	2	2	2	2	2	2	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	61	59	57	55	52	49	46	43	39	36	33	29	25	21	17	12	7

64	61	59	57	55	52	49	46	43	39	36	33	29	25	21	17	12	7
21	20	20	19	18	17	16	15	14	13	12	11	10	8	7	5	4	2
43	41	40	38	37	35	33	31	29	26	24	22	19	17	14	11	8	5
1,710	1,751	1,791	1,829	1,866	1,900	1,933	1,964	1,993	2,020	2,044	2,066	2,085	2,102	2,115	2,127	2,135	2,139



1-Jul-47	1-Jan-48	1-Jul-48	1-Jan-49	1-Jul-49	1-Jan-50	1-Jul-50	1-Jan-51	1-Jul-51	1-Jan-52	1-Jul-52	1-Jan-53	1-Jul-53	1-Jan-54	1-Jul-54	1-Jan-55	1-Jul-55	1-Jan-56
31-Dec-47	30-Jun-48	31-Dec-48	30-Jun-49	31-Dec-49	30-Jun-50	31-Dec-50	30-Jun-51	31-Dec-51	30-Jun-52	31-Dec-52	30-Jun-53	31-Dec-53	30-Jun-54	31-Dec-54	30-Jun-55	31-Dec-55	30-Jun-56
2047	2048	2048	2049	2049	2050	2050	2051	2051	2052	2052	2053	2053	2054	2054	2055	2055	2056
128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140



[illegible]

Balance Sheet

Start Date 1-Jan-17 1-Feb-17 1-Mar-17 1-Apr-17 1-May-17 1-Jun-17 1-Jul-17 1-Aug-17 1-Sep-17 1-Oct-17 1-Nov-17 1-Dec-17
 End Date 31-Dec-16 31-Jan-17 28-Feb-17 31-Mar-17 30-Apr-17 31-May-17 30-Jun-17 31-Jul-17 31-Aug-17 30-Sep-17 31-Oct-17 30-Nov-17 31-Dec-17
 Year 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017

Current Assets												
Cash	-	-	-	-	-	-	-	-	-	-	-	-
DSRA Balance	-	-	-	-	-	-	-	-	-	-	-	-
MRA Balance	-	-	-	-	-	-	-	-	-	-	-	-
Fixed Assets												
Net Facility	-	-	-	-	-	-	-	-	-	-	-	-
IDC Facility	-	-	-	-	-	-	-	-	-	-	-	-
Unamortized Fees	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-
Total Assets												
Current Liabilities												
Current Portion	-	-	-	-	-	-	-	-	-	-	-	-
Long Term Liabilities												
Long Term Debt	-	-	-	-	-	-	-	-	-	-	-	-
Total Liabilities												
Equity												
Equity Issues	-	-	-	-	-	-	-	-	-	-	-	-
Retained Earnings	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-
Total Equity & Liabilities												

Check
Aggregate Test

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1-Jan-18 1-Feb-18 1-Mar-18 1-Apr-18 1-May-18 1-Jun-18 1-Jul-18 1-Aug-18 1-Sep-18 1-Oct-18 1-Nov-18 1-Dec-18 1-Jan-19 1-Feb-19 1-Mar-19 1-Apr-19 1-May-19 1-Jun-19
 31-Jan-18 28-Feb-18 31-Mar-18 30-Apr-18 31-May-18 30-Jun-18 31-Jul-18 31-Aug-18 30-Sep-18 31-Oct-18 30-Nov-18 31-Dec-18 31-Jan-19 28-Feb-19 31-Mar-19 30-Apr-19 31-May-19 30-Jun-19
 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2019 2019 2019 2019 2019 2019

84	96	108	119	131	143	155	167	179	191	203	215	226	238	250	262	274	286
12	12	12	12	12	19	19	19	19	19	19	27	27	27	27	27	27	36
96	107	119	131	143	165	177	189	201	213	225	250	262	274	286	298	309	338

96	107	119	131	143	165	177	189	201	213	225	250	262	274	286	298	309	338
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81	91	101	111	122	140	151	161	171	181	191	212	223	233	243	253	263	287
81	91	101	111	122	140	151	161	171	181	191	212	223	233	243	253	263	287

14	16	18	20	21	25	27	28	30	32	34	37	39	41	43	45	46	51
14	16	18	20	21	25	27	28	30	32	34	37	39	41	43	45	46	51



1-Jan-21 1-Jul-21 1-Jan-22 1-Jul-22 1-Jan-23 1-Jul-23 1-Jan-24 1-Jul-24 1-Jan-25 1-Jul-25 1-Jan-26 1-Jul-26 1-Jan-27 1-Jul-27 1-Jan-28 1-Jul-28 1-Jan-29 1-Jul-29
 30-Jun-21 31-Dec-21 30-Jun-22 31-Dec-22 30-Jun-23 31-Dec-23 30-Jun-24 31-Dec-24 30-Jun-25 31-Dec-25 30-Jun-26 31-Dec-26 30-Jun-27 31-Dec-27 30-Jun-28 31-Dec-28 30-Jun-29 31-Dec-29
 2021 2021 2022 2022 2023 2023 2024 2024 2025 2025 2026 2026 2027 2027 2028 2028 2029 2029

8 27 43 58 73 88 103 117 147 225 301 376 450 524 597 668 738 808
 76 73 71 70 69 68 67 66 49 - - - - - - -

475 451 428 407 387 367 349 331 315 299 284 270 256 244 231 220 209 198
 49 46 44 42 40 38 36 34 32 31 29 28 26 25 24 23 22 20
 62 58 54 50 46 41 37 33 29 25 21 17 12 8 4 (0) (0) (0)
 586 555 526 499 472 447 422 399 376 355 334 314 295 277 260 243 230 219

670 655 640 627 614 603 592 582 573 580 635 690 746 801 856 911 969 1,027

61 59 59 60 60 61 62 62 47 - - - - - - -

471 412 353 293 233 171 110 47 - - - - - - -

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103 103 103 103 103 103 103 103 103 103 103 103 103 103 103 103 103 103
 35 81 125 171 218 267 317 369 422 476 532 587 643 698 753 808 866 923
 138 184 228 274 322 370 420 477 525 580 635 690 746 801 856 911 969 1,027

670 655 640 627 614 603 592 582 573 580 635 690 746 801 856 911 969 1,027

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1-Jan-30	1-Jul-30	1-Jan-31	1-Jul-31	1-Jan-32	1-Jul-32	1-Jan-33	1-Jul-33	1-Jan-34	1-Jul-34	1-Jan-35	1-Jul-35	1-Jan-36	1-Jul-36	1-Jan-37	1-Jul-37	1-Jan-38	1-Jul-38
30-Jun-30	31-Dec-30	30-Jun-31	31-Dec-31	30-Jun-32	31-Dec-32	30-Jun-33	31-Dec-33	30-Jun-34	31-Dec-34	30-Jun-35	31-Dec-35	30-Jun-36	31-Dec-36	30-Jun-37	31-Dec-37	30-Jun-38	31-Dec-38
2030	2030	2031	2031	2032	2032	2033	2033	2034	2034	2035	2035	2036	2036	2037	2037	2038	2038

876	943	942	936	1,000	1,064	1,126	1,187	1,247	1,305	1,363	1,419	1,474	1,527	1,580	1,630	1,679	1,726
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189	179	170	162	154	146	139	132	125	119	113	107	102	97	92	87	83	79
19	18	18	17	16	15	14	14	13	12	12	11	11	10	9	9	9	8
(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
208	198	188	178	169	161	153	145	138	131	125	118	112	107	101	96	92	87

1,084	1,141	1,129	1,114	1,170	1,225	1,279	1,332	1,385	1,436	1,487	1,537	1,586	1,634	1,681	1,727	1,771	1,813
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103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
981	1,038	1,026	1,011	1,066	1,122	1,176	1,229	1,281	1,333	1,384	1,434	1,483	1,531	1,578	1,623	1,667	1,710
1,084	1,141	1,129	1,114	1,170	1,225	1,279	1,332	1,385	1,436	1,487	1,537	1,586	1,634	1,681	1,727	1,771	1,813
1,084	1,141	1,129	1,114	1,170	1,225	1,279	1,332	1,385	1,436	1,487	1,537	1,586	1,634	1,681	1,727	1,771	1,813

TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
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1-Jan-39	1-Jul-39	1-Jan-40	1-Jul-40	1-Jan-41	1-Jul-41	1-Jan-42	1-Jul-42	1-Jan-43	1-Jul-43	1-Jan-44	1-Jul-44	1-Jan-45	1-Jul-45	1-Jan-46	1-Jul-46	1-Jan-47	1-Jul-47
30-Jun-39	31-Dec-39	30-Jun-40	31-Dec-40	30-Jun-41	31-Dec-41	30-Jun-42	31-Dec-42	30-Jun-43	31-Dec-43	30-Jun-44	31-Dec-44	30-Jun-45	31-Dec-45	30-Jun-46	31-Dec-46	30-Jun-47	31-Dec-47
2039	2039	2040	2040	2041	2041	2042	2042	2043	2043	2044	2044	2045	2045	2046	2046	2047	2047

1,772	1,816	1,858	1,898	1,936	1,973	2,007	2,039	2,068	2,095	2,119	2,141	2,160	2,176	2,189	2,200	2,206	2,209
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75	71	68	64	61	58	55	52	50	47	45	43	40	38	37	35	33	31
8	7	7	7	6	6	6	5	5	5	5	4	4	4	4	4	3	3
(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
83	78	75	71	67	64	61	58	55	52	49	47	45	42	40	38	36	35

1,854	1,894	1,932	1,969	2,004	2,036	2,067	2,096	2,123	2,147	2,169	2,188	2,205	2,219	2,230	2,238	2,243	2,244
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
1,751	1,791	1,829	1,866	1,900	1,933	1,964	1,993	2,020	2,044	2,066	2,085	2,102	2,115	2,127	2,135	2,139	2,140
1,854	1,894	1,932	1,969	2,004	2,036	2,067	2,096	2,123	2,147	2,169	2,188	2,205	2,219	2,230	2,238	2,243	2,244
1,854	1,894	1,932	1,969	2,004	2,036	2,067	2,096	2,123	2,147	2,169	2,188	2,205	2,219	2,230	2,238	2,243	2,244

TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
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1-Jan-48	1-Jul-48	1-Jan-49	1-Jul-49	1-Jan-50	1-Jul-50	1-Jan-51	1-Jul-51	1-Jan-52	1-Jul-52	1-Jan-53	1-Jul-53	1-Jan-54	1-Jul-54	1-Jan-55	1-Jul-55	1-Jan-56	1-Jul-56
30-Jun-48	31-Dec-48	30-Jun-49	31-Dec-49	30-Jun-50	31-Dec-50	30-Jun-51	31-Dec-51	30-Jun-52	31-Dec-52	30-Jun-53	31-Dec-53	30-Jun-54	31-Dec-54	30-Jun-55	31-Dec-55	30-Jun-56	31-Dec-56
2048	2048	2049	2049	2050	2050	2051	2051	2052	2052	2053	2053	2054	2054	2055	2055	2056	2056

2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209
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31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35

2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244
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103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140
2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244

TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
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1-Jan-57	1-Jul-57	1-Jan-58	1-Jul-58	1-Jan-59	1-Jul-59	1-Jan-60	1-Jul-60	1-Jan-61	1-Jul-61	1-Jan-62	1-Jul-62	1-Jan-63
30-Jun-57	31-Dec-57	30-Jun-58	31-Dec-58	30-Jun-59	31-Dec-59	30-Jun-60	31-Dec-60	30-Jun-61	31-Dec-61	30-Jun-62	31-Dec-62	30-Jun-63
2057	2057	2058	2058	2059	2059	2060	2060	2061	2061	2062	2062	2063

2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209
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31	31	31	31	31	31	31	31	31	31	31	31	31
3	3	3	3	3	3	3	3	3	3	3	3	3
(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
35	35	35	35	35	35	35	35	35	35	35	35	35

2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244
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103	103	103	103	103	103	103	103	103	103	103	103	103
2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140
2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244

TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
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Cashflow Statement

Start Date	1-Jan-17	1-Feb-17	1-Mar-17	1-Apr-17	1-May-17	1-Jun-17	1-Jul-17	1-Aug-17	1-Sep-17	1-Oct-17	1-Nov-17
End Date	31-Dec-16	28-Feb-17	31-Mar-17	30-Apr-17	31-May-17	30-Jun-17	31-Jul-17	31-Aug-17	30-Sep-17	31-Oct-17	30-Nov-17
Year	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017
EBITDA											
Less: Taxes	-	-	-	-	-	-	-	-	-	-	-
Add: Funding Sources Less Uses	-	-	-	-	-	-	-	-	-	-	-
CFADS											
Less: Interest Expenses	-	-	-	-	-	-	-	-	-	-	-
Less: Repayment of Debt	-	-	-	-	-	-	-	-	-	-	-
Cashflow After Debt Service	-	-	-	-	-	-	-	-	-	-	-
Less: Funding (Withdrawal) of MRA	-	-	-	-	-	-	-	-	-	-	-
Cashflow before DSRA	-	-	-	-	-	-	-	-	-	-	-
Less: Funding (Withdrawal) of DSRA	-	-	-	-	-	-	-	-	-	-	-
Cashflow Available for Dividends	-	-	-	-	-	-	-	-	-	-	-
Accumulated Cashflows	-	-	-	-	-	-	-	-	-	-	-
Cashflow Check	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE



1-Dec-20	1-Jan-21	1-Jul-21	1-Jan-22	1-Jul-22	1-Jan-23	1-Jul-23	1-Jan-24	1-Jul-24	1-Jan-25	1-Jul-25	1-Jan-26	1-Jul-26	1-Jan-27	1-Jul-27	1-Jan-28	1-Jul-28	1-Jan-29
31-Dec-20	30-Jun-21	31-Dec-21	30-Jun-22	31-Dec-22	30-Jun-23	31-Dec-23	30-Jun-24	31-Dec-24	30-Jun-25	31-Dec-25	30-Jun-26	31-Dec-26	30-Jun-27	31-Dec-27	30-Jun-28	31-Dec-28	30-Jun-29
2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026	2027	2027	2028	2028	2029
-	102	101	109	108	107	107	106	105	104	103	103	102	101	100	99	99	99
-	17	9	22	23	23	24	25	25	26	27	27	27	27	27	27	27	29
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	84	92	87	86	84	83	81	80	79	77	76	75	74	74	73	72	70
-	17	16	14	12	10	9	7	5	3	1	-	-	-	-	-	-	-
-	53	61	59	59	60	60	61	62	62	67	-	-	-	-	-	-	-
70	14	15	15	14	14	14	14	13	13	28	76	75	74	74	73	72	70
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	14	15	15	14	14	14	14	13	13	28	76	75	74	74	73	72	70
70	6	(4)	(1)	(1)	(1)	(1)	(1)	(1)	(17)	(49)	-	-	-	-	-	-	-
0	8	19	16	16	15	15	15	15	30	77	76	75	74	74	73	72	70
0	8	27	43	58	73	88	103	117	147	225	301	376	450	524	587	668	738
TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE



1-Jul-47	1-Jan-48	1-Jul-48	1-Jan-49	1-Jul-49	1-Jan-50	1-Jul-50	1-Jan-51	1-Jul-51	1-Jan-52	1-Jul-52	1-Jan-53	1-Jul-53	1-Jan-54	1-Jul-54	1-Jan-55	1-Jul-55	1-Jan-56
31-Dec-47	30-Jun-48	31-Dec-48	30-Jun-49	31-Dec-49	30-Jun-50	31-Dec-50	30-Jun-51	31-Dec-51	30-Jun-52	31-Dec-52	30-Jun-53	31-Dec-53	30-Jun-54	31-Dec-54	30-Jun-55	31-Dec-55	30-Jun-56
2047	2048	2048	2049	2049	2050	2050	2051	2051	2052	2052	2053	2053	2054	2054	2055	2055	2056
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209
TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE



Debt

Start Date	1-Jan-17
End Date	31-Dec-16
Year	2017

Total Debt 585

Tenor 11
 Grace Period 3
 6-Month KIBOR 0.9%
 Credit Spread 5.0%
 Target OSCR 1.20

Debt Breakdown	
Repayment	-
Interest	-
Total Debt Service	-

Debt Schedule

Fraction of a Year 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33%

Total Debt

Opening Balance	-
Add: Debt Borrowed	-
Closing Balance	-

Debt Repayment Schedule

Opening Balance	-
Add: Long Term Debt	-
Less: Repayment	-
Closing Balance	-

Classification of Loan

Long Term Debt	-
Current Portion	-

Debt Scheduling

Opening Balance	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585
Less: Repayment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Closing Balance	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585

KIBOR 0.9%

Credit Spread 5.0%

Total Annual Rate 5.9%



Periodic Interest Rate	0.49%	0.49%	0.49%	0.49%	0.49%	0.49%	0.49%	0.49%	0.49%	0.49%	0.49%	0.49%	0.49%
Interest Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
CFADS	-	-	-	-	-	-	-	-	-	-	-	-	-
DSCR	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Interest Payments	-	-	-	-	-	-	-	-	-	-	-	-	-
Repayment	-	-	-	-	-	-	-	-	-	-	-	-	-
Default Check	-	-	-	-	-	-	-	-	-	-	-	-	-



1-Jan-18 1-Feb-18 1-Mar-18 1-Apr-18 1-May-18 1-Jun-18 1-Jul-18 1-Aug-18 1-Sep-18 1-Oct-18 1-Nov-18 1-Dec-18 1-Jan-19 1-Feb-19 1-Mar-19 1-Apr-19 1-May-19 1-Jun-19
 31-Jan-18 28-Feb-18 31-Mar-18 30-Apr-18 31-May-18 30-Jun-18 31-Jul-18 31-Aug-18 30-Sep-18 31-Oct-18 30-Nov-18 31-Dec-18 31-Jan-19 28-Feb-19 31-Mar-19 30-Apr-19 31-May-19 30-Jun-19
 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2019 2019 2019 2019 2019 2019

8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33%

-	81	91	101	111	122	140	151	161	171	181	191	212	223	233	243	253	263
81	10	10	10	10	19	10	10	10	10	10	22	10	10	10	10	10	24
81	91	101	111	122	140	151	161	171	181	191	212	223	233	243	253	263	287

81	91	101	111	122	140	151	161	171	181	191	212	223	233	243	253	263	287
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585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585
585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585

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1-Jul-19 1-Aug-19 1-Sep-19 1-Oct-19 1-Nov-19 1-Dec-19 1-Jan-20 1-Feb-20 1-Mar-20 1-Apr-20 1-May-20 1-Jun-20 1-Jul-20 1-Aug-20 1-Sep-20 1-Oct-20 1-Nov-20 1-Dec-20
 31-Jul-19 31-Aug-19 30-Sep-19 31-Oct-19 30-Nov-19 31-Dec-19 31-Jan-20 29-Feb-20 31-Mar-20 30-Apr-20 31-May-20 30-Jun-20 31-Jul-20 31-Aug-20 30-Sep-20 31-Oct-20 30-Nov-20 31-Dec-20
 2019 2019 2019 2019 2019 2019 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020

8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33% 8.33%

287	297	307	317	327	338	364	374	384	394	404	414	443	453	463	474	484	494
10	10	10	10	10	26	10	10	10	10	10	10	29	10	10	10	10	91
297	307	317	327	338	364	374	384	394	404	414	443	453	463	474	484	494	585

287	297	307	317	327	338	364	374	384	394	404	414	443	453	463	474	484	494
10	10	10	10	10	26	10	10	10	10	10	10	29	10	10	10	10	91
297	307	317	327	338	364	374	384	394	404	414	443	453	463	474	484	494	585

297	307	317	327	338	364	374	384	394	404	414	443	453	463	474	484	494	532
																	53

585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585
585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585

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1-Jan-21 1-Jul-21 1-Jan-22 1-Jul-22 1-Jan-23 1-Jul-23 1-Jan-24 1-Jul-24 1-Jan-25 1-Jul-25 1-Jan-26 1-Jul-26 1-Jan-27 1-Jul-27 1-Jan-28 1-Jul-28 1-Jan-29 1-Jul-29
 30-Jun-21 31-Dec-21 30-Jun-22 31-Dec-22 30-Jun-23 31-Dec-23 30-Jun-24 31-Dec-24 30-Jun-25 31-Dec-25 30-Jun-26 31-Dec-26 30-Jun-27 31-Dec-27 30-Jun-28 31-Dec-28 30-Jun-29 31-Dec-29
 2021 2021 2022 2022 2023 2023 2024 2024 2025 2025 2026 2026 2027 2027 2028 2028 2029 2029

53	61	59	59	60	60	61	62	62	47	-	-	-	-	-	-	-	-
17	16	14	12	10	9	7	5	3	1	-	-	-	-	-	-	-	-
70	76	73	71	70	89	68	67	66	49	-	-	-	-	-	-	-	-

50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00% 50.00%

585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585

585	532	471	412	353	293	233	171	110	47	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	61	59	59	60	60	61	62	62	47	-	-	-	-	-	-	-	-
532	471	412	353	293	233	171	110	47	-	-	-	-	-	-	-	-	-

471	412	353	293	233	171	110	47	-	-	-	-	-	-	-	-	-	-
61	59	59	60	60	61	62	47	-	-	-	-	-	-	-	-	-	-

585	532	471	412	353	293	233	171	110	47	-	-	-	-	-	-	-	-
53	61	59	59	60	60	61	62	62	47	-	-	-	-	-	-	-	-
532	471	412	353	293	233	171	110	47	-	-	-	-	-	-	-	-	-

0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9% 0.9%
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 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9%



1-Jan-30	1-Jul-30	1-Jan-31	1-Jul-31	1-Jan-32	1-Jul-32	1-Jan-33	1-Jul-33	1-Jan-34	1-Jul-34	1-Jan-35	1-Jul-35	1-Jan-36	1-Jul-36	1-Jan-37	1-Jul-37	1-Jan-38	1-Jul-38
30-Jun-30	31-Dec-30	30-Jun-31	31-Dec-31	30-Jun-32	31-Dec-32	30-Jun-33	31-Dec-33	30-Jun-34	31-Dec-34	30-Jun-35	31-Dec-35	30-Jun-36	31-Dec-36	30-Jun-37	31-Dec-37	30-Jun-38	31-Dec-38
2030	2030	2031	2031	2032	2032	2033	2033	2034	2034	2035	2035	2036	2036	2037	2037	2038	2038

50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
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585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585

0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%



[illegible]

1-Jan-57	1-Jul-57	1-Jan-58	1-Jul-58	1-Jan-59	1-Jul-59	1-Jan-60	1-Jul-60	1-Jan-61	1-Jul-61	1-Jan-62	1-Jul-62	1-Jan-63
30-Jun-57	31-Dec-57	30-Jun-58	31-Dec-58	30-Jun-59	31-Dec-59	30-Jun-60	31-Dec-60	30-Jun-61	31-Dec-61	30-Jun-62	31-Dec-62	30-Jun-63
2057	2057	2058	2058	2059	2059	2060	2060	2061	2061	2062	2062	2063

50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
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585	585	585	585	585	585	585	585	585	585	585	585
585	585	585	585	585	585	585	585	585	585	585	585

0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%



Revenue

Start Date	End Date	Year	1-Jan-17	1-Feb-17	1-Mar-17	1-Apr-17	1-May-17	1-Jun-17	1-Jul-17	1-Aug-17	1-Sep-17	1-Oct-17	1-Nov-17	1-Dec-17
Year			2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017

Revenue

Oil Handling Charges

Throughput Revenue

Total

Workdays

Oil Handling

Volume Demanded Analysis

MOCAS Demand at COD

Volume Growth

Growth Factor

MOCAS Demand

USD Demand

Total

Volume Handled at Jetty

Handling Charge

Base Year Charge

Pre-Debt Escalation

Post-Debt Escalation

Charge Escalation

Growth Factor

Applicable Charge

Throughput Charge

Base Year Charge - Existing Pipeline

Base Year Charge - New Pipeline

Pre-Debt Escalation

Post-Debt Escalation

Charge Escalation

Growth Factor

Applicable Charge - Existing Pipeline



1-Nov-20	3-Dec-20	1-Jan-21	1-Jul-21	1-Jan-22	1-Jul-22	1-Jan-23	1-Jul-23	1-Jan-24	1-Jul-24	1-Jan-25	1-Jul-25	1-Jan-26	1-Jul-26	1-Jan-27	1-Jul-27	1-Jan-28
30-Nov-20	31-Dec-20	30-Nov-21	31-Dec-21	30-Nov-22	31-Dec-22	30-Nov-23	31-Dec-23	30-Nov-24	31-Dec-24	30-Nov-25	31-Dec-25	30-Nov-26	31-Dec-26	30-Nov-27	31-Dec-27	30-Nov-28
2020	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026	2027	2027	2028

-	-	19	19	27	27	27	27	27	27	27	27	27	27	27	27	27
-	-	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101
-	-	119	119	128	128	128	128	128	128	128	128	128	128	128	128	128

-	-	3,094,467	3,094,467	4,724,588	4,724,588	5,939,129	5,939,129	7,338,592	7,338,592	8,831,468	8,831,468	10,424,339	10,424,339	12,124,274	12,124,274	13,938,859
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
-	-	3,094,467	3,094,467	4,724,588	4,724,588	5,939,129	5,939,129	7,338,592	7,338,592	8,831,468	8,831,468	10,424,339	10,424,339	12,124,274	12,124,274	13,938,859
-	-	3,094,467	3,094,467	4,724,588	4,724,588	5,939,129	5,939,129	7,338,592	7,338,592	8,831,468	8,831,468	10,424,339	10,424,339	12,124,274	12,124,274	13,938,859
-	-	3,094,467	3,094,467	4,724,588	4,724,588	5,939,129	5,939,129	7,338,592	7,338,592	8,831,468	8,831,468	10,424,339	10,424,339	12,124,274	12,124,274	13,938,859

-	-	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
-	-	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00

-	-	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
-	-	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05



1-Jul-28	1-Jul-29	1-Jul-29	1-Jul-29	1-Jul-30	1-Jul-31	1-Jul-31	1-Jul-32	1-Jul-32	1-Jul-33	1-Jul-33	1-Jul-34	1-Jul-34	1-Jul-35	1-Jul-35	1-Jul-36	1-Jul-36
31-Dec-28	30-Jun-29	31-Dec-29	30-Jun-30	31-Dec-30	30-Jun-31	31-Dec-31	30-Jun-32	31-Dec-32	30-Jun-33	31-Dec-33	30-Jun-34	31-Dec-34	30-Jun-35	31-Dec-35	30-Jun-36	31-Dec-36
2028	2029	2029	2030	2030	2031	2031	2032	2032	2033	2033	2034	2034	2035	2035	2036	2036

27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101
128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128

13,938,859	15,876,241	15,876,241	17,945,168	17,945,168	20,155,035	20,155,035	22,515,932	22,515,932	25,038,700	25,038,700	27,734,986	27,734,986	30,617,203	30,617,203	33,699,106	33,699,106
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

13,938,859	15,876,241	15,876,241	17,945,168	17,945,168	20,155,035	20,155,035	22,515,932	22,515,932	25,038,700	25,038,700	27,734,986	27,734,986	30,617,203	30,617,203	33,699,106	33,699,106
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00



1-Jan-37	1-Jul-37	1-Jan-38	1-Jul-38	1-Jan-39	1-Jul-39	1-Jan-40	1-Jul-40	1-Jan-41	1-Jul-41	1-Jan-42	1-Jul-42	1-Jan-43	1-Jul-43	1-Jan-44	1-Jul-44	1-Jan-45
30-Jun-37	31-Dec-37	30-Jun-38	31-Dec-38	30-Jun-39	31-Dec-39	30-Jun-40	31-Dec-40	30-Jun-41	31-Dec-41	30-Jun-42	31-Dec-42	30-Jun-43	31-Dec-43	30-Jun-44	31-Dec-44	30-Jun-45
2037	2037	2038	2038	2039	2039	2040	2040	2041	2041	2042	2042	2043	2043	2044	2044	2045

27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101
128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128

36,500,751	36,500,751	39,476,080	42,634,166	46,044,500	49,728,492	53,706,771	58,003,313	62,643,578	67,655,064							
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

36,500,751	36,500,751	39,476,080	42,634,166	46,044,500	49,728,492	53,706,771	58,003,313	62,643,578	67,655,064							
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00



1-Jul-45	1-Jan-46	1-Jul-46	1-Jan-47	1-Jul-47	1-Jan-48	1-Jul-48	1-Jan-49	1-Jul-49	1-Jan-50	1-Jul-50	1-Jan-51	1-Jul-51	1-Jan-52	1-Jul-52	1-Jan-53	1-Jul-53
31-Dec-45	30-Jun-46	31-Dec-46	30-Jun-47	31-Dec-47	30-Jun-48	31-Dec-48	30-Jun-49	31-Dec-49	30-Jun-50	31-Dec-50	30-Jun-51	31-Dec-51	30-Jun-52	31-Dec-52	30-Jun-53	31-Dec-53
2045	2046	2046	2047	2047	2048	2048	2049	2049	2050	2050	2051	2051	2052	2052	2053	2053

27	27	27	27	27	-	-	-	-	-	-	-	-	-	-	-	-
101	101	101	101	101	-	-	-	-	-	-	-	-	-	-	-	-
128	128	128	128	128	-	-	-	-	-	-	-	-	-	-	-	-

67,655,064	73,067,469	73,067,469	78,912,867	78,912,867	-	-	-	-	-	-	-	-	-	-	-	-
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

67,655,064	73,067,469	73,067,469	78,912,867	78,912,867	-	-	-	-	-	-	-	-	-	-	-	-
67,655,064	73,067,469	73,067,469	78,912,867	78,912,867	-	-	-	-	-	-	-	-	-	-	-	-
1.00	1.00	1.00	1.00	1.00	-	-	-	-	-	-	-	-	-	-	-	-

4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	-	-	-	-	-	-	-	-	-	-	-	-
6.00	6.00	6.00	6.00	6.00	-	-	-	-	-	-	-	-	-	-	-	-
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

0.05	0.05	0.05	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00



-	-
0%	0%
1.00	1.00
-	-
-	-
-	-

--	--

-	-
0%	0%
1.00	1.00
-	-
-	-
-	-

--	--

75,000	25,000
-	-
0%	0%
13,46	75,734
586,562	653,487
-	-
586,562	653,487
25,000	25,000

--	--

50,911,294	50,911,294
-	-
0%	0%
1.00	1.00
50,911,294	50,911,294
50,911,294	50,911,294
2,975,000	2,975,000

51,487,856	51,944,791
3,000,000	3,000,000
3,000,000	3,000,000

FALSE	FALSE
-	-
FALSE	FALSE
-	-

840,000.00	840,000.00
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OPEX

Start Date	1-Jan-17	1-Feb-17	1-Mar-17	1-Apr-17	1-May-17	1-Jun-17	1-Jul-17	1-Aug-17	1-Sep-17	1-Oct-17	1-Nov-17
End Date	31-Dec-16	31-Jan-17	28-Feb-17	31-Mar-17	30-Apr-17	31-May-17	30-Jun-17	31-Jul-17	31-Aug-17	30-Sep-17	31-Oct-17
Year	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017

OPEX

Operating Costs	-	-	-	-	-	-	-	-	-	-	-
Maintenance Costs	-	-	-	-	-	-	-	-	-	-	-
Major Maintenance Cost	-	-	-	-	-	-	-	-	-	-	-
Lease Expense	-	-	-	-	-	-	-	-	-	-	-
Insurance	-	-	-	-	-	-	-	-	-	-	-
Funding Cost	-	-	-	-	-	-	-	-	-	-	-
Hospitality charges OMC (USD)	-	-	-	-	-	-	-	-	-	-	-
PQA Charges(0.78 USD/MT Handling Charges+0.35 USD/MT Offer by FI	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-

Workings

Base Year Rates	-	-	-	-	-	-	-	-	-	-	-
Operating Costs	-	-	-	-	-	-	-	-	-	-	-
Maintenance Costs	-	-	-	-	-	-	-	-	-	-	-
Major Maintenance Costs	-	-	-	-	-	-	-	-	-	-	-
Lease Expense	-	-	-	-	-	-	-	-	-	-	-

Annual Growth Rates	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Operating Costs	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Maintenance Costs	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Major Maintenance Costs	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Lease Expense	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%

Periodic Growth Rates	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%
Operating Costs	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%
Maintenance Costs	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%
Major Maintenance Costs	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%
Lease Expense	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%

Growth Factors	1.01	1.02	1.02	1.03	1.04	1.05	1.06	1.07	1.07	1.08	1.09
Operating Costs	1.01	1.01	1.02	1.02	1.03	1.03	1.04	1.05	1.05	1.06	1.06
Maintenance Costs	1.01	1.01	1.02	1.02	1.03	1.03	1.04	1.05	1.05	1.06	1.06
Major Maintenance Costs	1.01	1.01	1.02	1.02	1.03	1.03	1.04	1.05	1.05	1.06	1.06
Lease Expense	1.01	1.01	1.02	1.02	1.03	1.03	1.04	1.05	1.05	1.06	1.06
First Major Maintenance	-	-	-	-	-	-	-	-	-	-	-
Second Major Maintenance	-	-	-	-	-	-	-	-	-	-	-

PQA Handling charges



Rate

Hospitality charges

Hospitality charges	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Growth rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Escalated rates	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22



1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22



1-Dec-20	1-Jan-21	1-Jul-21	1-Jan-22	1-Jul-22	1-Jan-23	1-Jul-23	1-Jan-24	1-Jul-24	1-Jan-25	1-Jul-25	1-Jan-26	1-Jul-26	1-Jan-27	1-Jul-27	1-Jan-28	1-Jul-28	1-Jan-29
31-Dec-20	30-Jun-21	31-Dec-21	30-Jun-22	31-Dec-22	30-Jun-23	31-Dec-23	30-Jun-24	31-Dec-24	30-Jun-25	31-Dec-25	30-Jun-26	31-Dec-26	30-Jun-27	31-Dec-27	30-Jun-28	31-Dec-28	30-Jun-29
2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026	2027	2027	2028	2028	2029

-	7	8	8	8	9	9	10	10	11	11	12	12	13	13	14	15	16
-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	3	4	4	4	4	4	4	4	5	5	5	5	5	5	5	6	6
-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
-	1.02	1.02	1.02	1.02	1.13	1.13	1.13	1.13	1.24	1.24	1.24	1.24	1.36	1.36	1.36	1.50	1.50
-	3.39	3.39	3.39	3.39	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	4.20	4.20	4.20
-	18	18	19	19	20	21	21	22	23	23	24	25	26	27	28	29	29

-	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71
-	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42

10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%

0.80%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%
0.57%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%
0.57%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%

1.46	1.54	1.61	1.69	1.77	1.86	1.95	2.04	2.14	2.25	2.36	2.47	2.59	2.72	2.85	2.99	3.14	3.29
1.31	1.36	1.40	1.45	1.50	1.55	1.61	1.66	1.72	1.78	1.84	1.90	1.97	2.03	2.10	2.18	2.25	2.33
1.31	1.36	1.40	1.45	1.50	1.55	1.61	1.66	1.72	1.78	1.84	1.90	1.97	2.03	2.10	2.18	2.25	2.33

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



1.13	1.13	1.13	1.13	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.40	1.40	1.40
1.22	1.22	1.22	1.22	1.22	1.34	1.34	1.34	1.34	1.48	1.48	1.62	1.62	1.62
0%	0%	0%	0%	10%	0%	0%	0%	10%	0%	0%	0%	0%	10%
1.22	1.22	1.22	1.22	1.34	1.34	1.34	1.34	1.48	1.48	1.48	1.62	1.62	1.79



1-Jul-29	1-Jan-30	1-Jul-30	1-Jan-31	1-Jul-31	1-Jan-32	1-Jul-32	1-Jan-33	1-Jul-33	1-Jan-34	1-Jul-34	1-Jan-35	1-Jul-35	1-Jan-36	1-Jul-36	1-Jan-37	1-Jul-37	1-Jan-38
31-Dec-29	30-Jun-30	31-Dec-30	30-Jun-31	31-Dec-31	30-Jun-32	31-Dec-32	30-Jun-33	31-Dec-33	30-Jun-34	31-Dec-34	30-Jun-35	31-Dec-35	30-Jun-36	31-Dec-36	30-Jun-37	31-Dec-37	30-Jun-38
2029	2030	2030	2031	2031	2032	2032	2033	2033	2034	2034	2035	2035	2036	2036	2037	2037	2038

16	17	18	19	20	21	22	23	24	25	26	28	29	30	32	33	35	37
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
-	-	-	95	98	-	-	-	-	-	-	-	-	-	-	-	-	-
6	6	6	7	7	7	7	8	8	8	8	9	9	9	10	10	10	11
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1.50	1.50	1.50	1.65	1.65	1.65	1.65	1.82	1.82	1.82	1.82	2.00	2.00	2.00	2.00	2.20	2.20	2.20
4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.65	4.65	4.65	4.65	4.65	4.65	4.65	4.65	4.65	4.65	5.10
30	31	32	128	132	36	37	39	40	42	43	45	47	49	50	52	54	57

9	9	9	9	9	9	9	9	9	9	9	9	9	9	5	9	9	9
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71
0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42

10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%

4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%
3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%
3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%
3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%

3.45	3.62	3.80	3.98	4.18	4.38	4.59	4.82	5.05	5.30	5.56	5.83	6.12	6.41	6.73	7.06	7.40	7.76
2.41	2.49	2.58	2.67	2.76	2.85	2.95	3.05	3.16	3.27	3.38	3.50	3.62	3.74	3.87	4.00	4.14	4.28
2.41	2.49	2.58	2.67	2.76	2.85	2.95	3.05	3.16	3.27	3.38	3.50	3.62	3.74	3.87	4.00	4.14	4.28
2.41	2.49	2.58	2.67	2.76	2.85	2.95	3.05	3.16	3.27	3.38	3.50	3.62	3.74	3.87	4.00	4.14	4.28
-	-	-	94.6	97.9	-	-	-	-	-	-	-	-	-	-	-	-	-



1.40	1.40	1.40	1.40	1.40	1.40	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.70
1.79	1.79	1.79	1.79	1.96	1.96	1.96	2.16	2.16	2.16	2.16	2.38	2.38	2.38	2.38	2.62
0%	0%	0%	10%	0%	0%	10%	0%	0%	10%	0%	0%	0%	10%	0%	0%
1.79	1.79	1.79	1.96	1.96	1.96	2.16	2.16	2.16	2.38	2.38	2.38	2.38	2.62	2.62	2.62



1-Jul-38	1-Jan-39	1-Jul-39	1-Jan-40	1-Jul-40	1-Jan-41	1-Jul-41	1-Jan-42	1-Jul-42	1-Jan-43	1-Jul-43	1-Jan-44	1-Jul-44	1-Jan-45	1-Jul-45	1-Jan-46	1-Jul-46	1-Jan-47
31-Dec-38	30-Jun-39	31-Dec-39	30-Jun-40	31-Dec-40	30-Jun-41	31-Dec-41	30-Jun-42	31-Dec-42	30-Jun-43	31-Dec-43	30-Jun-44	31-Dec-44	30-Jun-45	31-Dec-45	30-Jun-46	31-Dec-46	30-Jun-47
2038	2039	2039	2040	2040	2041	2041	2042	2042	2043	2043	2044	2044	2045	2045	2046	2046	2047

39	40	42	44	47	49	51	54	56	59	62	65	68	72	75	79	83	87
1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	11	12	12	13	13	14	14	15	15	16	16	17	17	18	18	19	20
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.20	2.42	2.42	2.42	2.42	2.66	2.66	2.66	2.66	2.92	2.92	2.92	2.92	3.22	3.22	3.22	3.22	3.54
5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.55	5.55	5.55	5.55	5.55	5.55	5.55	5.55	5.55
59	62	64	67	69	72	75	78	81	85	89	92	96	100	105	109	113	118

9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71
0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42

10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%

4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%
3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%
3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%
3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%

8.14	8.54	8.95	9.39	9.85	10.33	10.83	11.36	11.92	12.50	13.11	13.75	14.42	15.12	15.86	16.64	17.45	18.30
4.43	4.58	4.74	4.90	5.07	5.25	5.43	5.61	5.81	6.01	6.21	6.43	6.65	6.88	7.11	7.36	7.61	7.87
4.43	4.58	4.74	4.90	5.07	5.25	5.43	5.61	5.81	6.01	6.21	6.43	6.65	6.88	7.11	7.36	7.61	7.87
4.43	4.58	4.74	4.90	5.07	5.25	5.43	5.61	5.81	6.01	6.21	6.43	6.65	6.88	7.11	7.36	7.61	7.87



1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85
2.62	2.62	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	3.16	3.16	3.16	3.16	3.16	3.48	3.48	3.48	3.48
0%	10%	0%	0%	0%	0%	10%	0%	0%	0%	0%	10%	0%	0%	0%	10%	0%	0%	10%
2.62	2.88	2.88	2.88	2.88	3.16	3.16	3.16	3.16	3.16	3.16	3.48	3.48	3.48	3.48	3.83	3.83	3.83	4.21



1-Jul-47	1-Jan-48	1-Jul-48	1-Jan-49	1-Jul-49	1-Jan-50	1-Jul-50	1-Jan-51	1-Jul-51	1-Jan-52	1-Jul-52	1-Jan-53	1-Jul-53	1-Jan-54	1-Jul-54	1-Jan-55	1-Jul-55	1-Jan-56
31-Dec-47	30-Jun-48	31-Dec-48	30-Jun-49	31-Dec-49	30-Jun-50	31-Dec-50	30-Jun-51	31-Dec-51	30-Jun-52	31-Dec-52	30-Jun-53	31-Dec-53	30-Jun-54	31-Dec-54	30-Jun-55	31-Dec-55	30-Jun-56
2047	2048	2048	2049	2049	2050	2050	2051	2051	2052	2052	2053	2053	2054	2054	2055	2055	2056

91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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5.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
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7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%

4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%
3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%
3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%
3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%

19.19	20.13	21.11	22.14	23.23	24.36	25.55	26.79	28.10	29.47	30.91	32.42	34.00	35.66	37.40	39.23	41.14	43.15
8.15	8.43	8.72	9.02	9.33	9.65	9.98	10.32	10.68	11.04	11.42	11.82	12.22	12.64	13.08	13.53	13.99	14.48
8.15	8.43	8.72	9.02	9.33	9.65	9.98	10.32	10.68	11.04	11.42	11.82	12.22	12.64	13.08	13.53	13.99	14.48
8.15	8.43	8.72	9.02	9.33	9.65	9.98	10.32	10.68	11.04	11.42	11.82	12.22	12.64	13.08	13.53	13.99	14.48

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