The mission of P11411 is to develop a water purification system that effectively provides the equivalent of water for one person per day, harnesses a renewable resource, and can be used in a laboratory setting.

				Engineering Metrics																		Customer Perception					
			Customer Weights	Reduce Salt Content	Reduce Contaminant Content	Harness Renewable Resource	Remove Useable Water	Remove Waste	Effectively demonstrate engineering principles	Operate Safely	Measure Salinity	Measure Contaminants	Control Water Input	Measure Supply Level	Measure Pressure	Measure Temperature	Input water from unuseable water source	Guarantee water supply to system	Effectively Identify and Document Logistics Issues	Effectively Identify and Document Communication Issu	Benchmarks	Benchmark is Much Better Than Proposed	Benchmark is Somewhat Better Than Proposed	Benchmark is About the Same as Proposed	Benchmark is Somehwat Worse Than Proposed	Benchmark is Much Worse Than Proposed
VOC - Affinity Groups	**CO #**	**VOC - Customer Objectives**	**Preferred Direction**	Down	Down	Up	Up	Up	Up	Up	Up	Up	Up	Up			Up	Up	0	0		5	4	3	2	1
Purify Water	1.1	This device should provide water for 1 person for a day	**35.0%**	1	1		3	1			3	3					1	1					5	2	5	3
	1.2	Input water should mimic ocean/brackish water		9	9		1	1			3	3	3	1			9	9					5	3	3	3
	1.3	Output water can be non potable		9	9		9	9			9	9					1						5	3	4	3
Use a Renewable Resource	2.1	Prefer to use a renewable resource	**20.0%**	1	1	9			9														1	3	1	1
Use as Instructional Tool	3.1	Designed for Lab instructional	**20.0%**			3	1	1	9	9	3	3	3	3	9	9	1						1	2	1	2
	3.1	Relatively Minimal training for operators							3	9													1	5	4	4
Operate Safely	4.1	Safe to Operate	**10.0%**	1	1	3			3	9													2	5	3	3
Senior Design Constraints	5.1	Completed in 22 weeks	**10.0%**		3	3			1	1	1	1	1	1	1	1							1	3	1	3
	5.2	Limited Technical Scope			3	9	3	3	1	1	1	1	1	1	1	1	1	1					1	5	1	4
Multi Cultural/National Issues	7.1	Identify communication issues with Dubai	**5.0%**																3	9			1	1	1	1
	7.2	Record Communication issues effectively for posterity																	3	9			1	1	1	1
	7.3	Logistics associated with international teams																	9	3			1	1	1	1
		Measure of Performance		%	%	%	ml/	ml/min	#	#	%	%	%	%	%	%	ml/	Syste	0	0		A	B	C	D	E
		Nominal Value		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
		Marginal Value		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
		Benchmark is Much Better Than Proposed	5																		A)	MSD Project P08401 - Still				
		Benchmark is Somewhat Better Than Proposed	4	3	3	1	5	5	2	2	4	4	5	5	5	5	5	5	3	3	B)	DEWA Facilities				
		Benchmark is About the Same as Proposed	3	3	2	3	2	2	2	5	1	1	1	1	1	1	2	2	3	3	C)	Acquamate Solar Still				
		Benchmark is Somehwat Worse Than Proposed	2	3	3	1	4	4	1	3	1	1	4	1	4	1	5	5	3	3	D)	Dolphin Mini Bssic RO				
		Benchmark is Much Worse Than Proposed	1	3	3	1	3	2	2	3	1	1	1	1	1	1	2	1	3	3	E)	Turbo Air Still (Still Spirits)				
		Raw score		0.7	1	3	1.3	0.6	4	2.8	1.8	1.8	0.7	0.7	1.9	1.9	0.6	0.4	0.2	0.5						
		Relative Weight		3%	4%	13%	5%	2%	17%	12%	7%	7%	3%	3%	8%	8%	2%	1%	1%	0%						

VOC to VOE	
There is no relationship between VOE & VOE	
There is a weak, indirect relataionship	1
There is a linear relationship	3
There is a stronger than linear relationship	9