

HAPPY NEW YEAR

Let's start the year making money with Blending

What is in this exciting newsletter?

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REFINERY AUTOMATION INSTITUTE, LLC

1. Blending Courses Calendar for 2018

New for 2018 is a course specifically-tailored for TRADERS, where we spend more time on trader-specific examples and exercises, answering questions such as blend profitability, comparing different blend components from different refineries, accounting for blend component prices, fixed or variable Ethanol blending, EPA VOC vs. blend RVP vs. blend profit. For details and registration, please click [HERE](#).

Our course we are going to cover also specs, blend components, linear and non-linear blending, estimating blend component prices, Lab test methods precision for dispute resolution, Ethanol blending, and much more. See the recent [syllabus we had for New York City](#).

What's the "Big Deal" about these courses?

You'll get first hand knowledge about making fuels profitably from me, Ara Barsamian, who has done this successfully for 40+years, plus the modeling and optimization expertise from Lee Curcio. You also get a 800+ pages blending coursebook, 35+ blending software modules, and gasoline and diesel blend optimizers (demo versions).

In short, you learn how to maximize fuel blending profits in an uncertain economic climate. What blendstocks should buy? How do you value a blendstock? How do you calculate non-linear properties, like octanes? How do you minimize quality giveaways? How do you avoid re-blends? How do you correct a blend? How do you exploit Ethanol and BioDiesel? How do you justify blending facility upgrades? Learn by doing, with live exercises, using your data.

[Blending Courses Calendar 2018](#)

[Gasoline and Diesel Blending Course](#)

[Dubai, UAE](#)

[Feb 12 to 14, 2018](#)

[London, UK-Traders only](#)

[May 9 to 11, 2018](#)

[New York, USA-Traders only](#)

[October 9 to 11, 2018](#)

[Singapore](#)

[November 12 to 14, 2018](#)

[Marine Bunker Blending Course](#)

[London,UK](#)

[May 15 to 17, 2018](#)

[Houston, Texas](#)

[June 19 to 21, 2018](#)

[Singapore](#)

[November 8 to 9, 2018](#)

2. Blending Advisory Services. Looking for help?

Do you need advice on gasoline, diesel, and bunker blending?
We help with improving your profitability with:

- Butane blending in Winter Gasoline
- Ethanol blending trading off octane vs. reformer severity
- Reducing octane giveaway: what is achievable and how
- RIN's: what can you do anything about it
- Improve blending bottom line with in-line blenders

We provide **blending economic performance assessment studies**, including cost/benefits, at a very attractive, lump-sum fixed price.

So, send us an email at info@refautom.com or call us, at +1-973-644-2270.

Recently many oil terminals and refineries are trying to make money injecting cheap butane to be compliant. Do you know how to do that? Is the butane the only alternative? Can you blend something else?

Currently we are working with many customers to achieve this goal, helping you to save and make \$-Money.

Trust our expertise and know-how. We are here to blend your dreams!!!!

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3. Publications: what is blending and IFO 0.5 % S

We wrote a paper that is published in Hydrocarbon Processing describing in a easy and direct way what blending is. Please take a look to the paper and let us know your opinion.

[Click here to see the paper.](#)

The other regarding IMO 0.5 % Sulfur, it is published on Oil & Gas Journal. [Click here to get a free copy.](#)

4. Blending Optimizer to make \$-Money with low effort.

Do you want an easy-to-use, push-button intuitive tool to make money on every single blend? Some examples are:

- Blend component “Buy/No Buy” decisions, comparing blendstocks from different sources for profitability, reduced blend giveaway, Ethanol blending, EPA VOC complex model, non-linear octane and RVP calculations, and more...

We have single user licenses, site licenses, and company wide licenses at very attractive prices.

For a free copy of optimizer brochures for gasoline, diesel, and bunker, please send an email to info@refautom.com

Optimum Blend

Blend Ethanol | Std LP Report | LP Details | Blend Values | EPA Model | Biases

Objective Function = **1,645.97** Blend Ethanol before EPA Blend Biases Active?

Last Run at: 10/28/16 12:03 PM Blend Biases: Not Active Feasible: Optimized 2 Limits Hit (***)

	Vol% in	% of	Marginal		Result at	Spec
3 Alkylate	0.00	0.0	-9.93	Motor Octane Number (MON)	79.0	*** >79
5 Reformate	0.00	0.0	-17.16	(RON + MON)/2	82.0	>78
6 FCC LCN	0.00	100.0	3.34	API Gravity	66.6239	50.0 < 80.0
7 CNHp	0.00	0.0	0.00	Sulfur content, ppm W	24	<80
8 HN-mix comp	36,140.5	18.07	72.3	0.000	0.000	<20 (NotActive)
9 RBOB w Heel-13.5psi	50,000.	25.00	100.0	1.77	14.34	14 < 14.8
10 ICN	-	0.00	0.0	-6.27	95	70 < 122
11 Ethanol	-	0.00	-	0.00	160	150 < 230
12 RBOB s Heel of 6psi	33,358.4	16.68	33.4	0.00	300	250 < 365
13					382	<430
14					923	<1200
15					102.1	>102.0
					11.5	<25
					16.5	<50
					0.43	<1.3
					0.0	*** 0 < 0 (NotActive)
					0.0	0 > 0 (NotActive)

Total Blend	200,000.	Bbl	Cost	39,4702
Blend Minimum	100,000.	Bbl	Sales Price	47,7000
			Profit, \$/Bbl	8,2298
			Total Profit, \$k	1,645.97

% Evaporated	N/A
E200, %	58.2
E300, %	90.

Driveability Index:	923
W/L=20, deg F:	102.1
W/L=20 with 10 % Ethanol, deg F:	115.8

Octane Blending Method: Ethyl Corr (Regular)

Notes: The above Specs are for 87RBOB-13.5psi-Buckeye 538. *** shows a limiting specification

Warnings: The Ethyl Octane equations are composition dependent. Rerun the optimizer until the Blend Composition does not change significantly.

Get also a tutorial to understand the optimizer. It is easy to use and you can make tons of \$-Money. [Click here to take a look.](#)

5. IMO 0.5% Sulfur Global Cap

IMO MEPC (marine environment protection committee), has approved the use the 0.5% Sulfur global cap in 2020. This despite the evidence that:

1) refiners have no intention whatsoever to produce 0.5%S bunker fuel by desulfurizing RESID when they can make more money by making more profitable (and costlier) distillates, and

2) using the O&GJ oil refining configuration/capacity data base, there isn't going to be enough 0.5% S bunker available unless you switch wholesale to 0.5%S gasoil.

Yeah, right! Unless you switch the consumption of ~300 million tons/year to 100% Gasoil, at a cost of about 62 billion/year. Who's going to pay for it? The usual suckers, the taxpayers around the world, in higher freight charges.

An educated guess is that people will either use scrubbers (about \$2 to \$5 million/a piece), or just ignore IMO and avoid ECA "police" countries as much as possible. We published a paper in the Oil & Gas Journal (Jan 2018 issue) describing alternatives and what you should consider. [For a free copy clicking here.](#)

Don't wait the last minute to find an alternative. Reach out to us to help you find the right solution, making IFO 0.5%S.

6. Design of In-line Blender

Many refineries and oil terminals are still blending components using a batch blending by sequential pumping to a tank. This means, pumping sequentially “n” components from blend component tanks to a final product tank.

Blending in this way produces large property giveaway, immobilizes storage tank and inventory, could result in off-spec non sellable product, it is time consuming and the blend can take more than one day, beside other side effects.

Why In-Line Blending?

There are many advantages in using an inline blender vs. sequential pumping components to a blend tank; for example:

- 1. With an inline blender you can reduce the blending time by at least 50%, which and frees tanks for other purposes and requires less inventory on hand;**
 - 2. Much smaller octane and vapor pressure property giveaway;**
 - 3. No offspecs or re-blends;**
 - 4. Minimize demurrage charges.**
- Fewer/less testing of blend samples (saving \$);**

Refinery Automation Institute is in this business for over 25 years, designing in-line blender for gasoline, diesel and bunker worldwide.

Save \$-Money and switch to in-line blending.

We are helping you:

- **save money**
- **increase the tank farm thruput**
- **automate the process and make the things easy**

[Take a look here to understand how we can help you.](#)

We Design In-line blenders for Gasoline, Diesel and Bunker

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WE BLEND YOUR DREAMS!!!!!!

