

Know Your Market!



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Overview

- **Background**
- **Federal data and tools**
- **State data**
 - **Air emissions**
 - **Regulatory comments**
- **Private sources**
- **University assistance in commercialization planning**

Background: Houston Galveston Point Source Challenge

- Start 10 years later than California, achieve similar standards, remodel 10-100 times the number of sources, and finish three years earlier.
- Cap and trade program allows flexibility in meeting regulatory goals. Facilitates innovative technological or supply side, least cost solutions.
- December 2002 rules addressed highly reactive VOCs from four key industrial processes: fugitives, flares, process vents, and cooling towers.
- State initiative to facilitate technology adoption process—Texas Council on Environmental Technology. Funding to support demonstration and certification.

Federal Resources

Chemical Industry Project Evaluation

- **Evaluates markets and impacts for chemical and refining sector processes.**
- **Used by DOE for evaluating responses to solicitations for**
 - **Chemical and refining R&D proposals**
 - **Small Business Innovative Research**
 - **Best Practices Technology Deployment**
- **Expanding to Forest Products in future**

www.energetics.com/chemtool/

Example of Project Evaluation Results

Output	2005	2010	2015	2020
Market Penetration (of your estimated share)	NA	14.7%	60.8%	93.3%
Market (Million lbs of the chemical product impacted)	NA	1,094	5,246	9,332
Energy Savings (TBTus)	NA			
Feedstock Energy		3.4	16.4	29.31
Heat/Steam Savings		0.17	0.85	1.52
Electricity Savings		-0.06	-0.32	-.05
Pollutant Reduction	NA			
NOX (lbs)		23,741	113,835	202,506
VOCs (lbs)		537	2,574	4,579
Carbon (MMTCE/yr)		.00156	.00746	.01328

What is the Texas market?

Source Category	# of Units	NOx TPY
Utility Boilers	32	71,500
Industrial Boilers	549	31,500
Industrial Heaters	1367	40,000
Gas Turbines	185	60,000
IC Engines	461	31,500
Miscellaneous	55	12,000

Source: TNRCC Rule Proposal Chapter 117 Rev 12/6/00

Need to Know More About These Markets?

Source Category	# of Units	NOx TPD
Utility Boilers	32	196
Gas Wall-fired	16	78
Gas Tangential-fired	5	13
Coal Wall-fired	2	56
Coal Tangential-fired	2	48
Auxiliary Boilers	7	.29

Source: TNRCC Rule Proposal Chapter 117 Rev 12/6/00

How to Get State Level Air Data

- Texas Commission on Environmental Quality conducts annual surveys “Emissions Inventory”.
- Data on approximately 3000 plants.
- Summary reports available on the web at www.tnrcc.state.tx.us/air/aqp/psei.htm#detailed
- Reports with data by Source Classification Code (ie, turbines) available by calling 512-239-1773

Private Data Sources

- Example: D&B's www.zapdata.com
- Purchase data for your use
- Can specify SIC codes or states
- Options: electricity & natural gas usage
- Helpful in conjunction with other technical data sources

Assistance in Commercialization Planning

- Technology commercialization program at the University of Texas—IC2 Institute
- Annual cycle—seeking technologies for development of assessment, venture development and business planning in MAY!!
- What you get:
 - Team of executive masters students
 - Technology Assessment
 - Business Plan
- Contact Dr. Brad Zehner 512-475-8977 or Dr. Rayan Bagchi at bagchiu@uts.cc.utexas.edu

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- Information on federal and state solicitations
- Hook up technology developers with potential users
- Training, tools, conferences and networking targeted to Texas industrial energy needs
- Topical projects
 - Small/medium sized process plant energy assessment with focus on NO_x reduction
 - Software tool for small/medium sized companies to analyze combustion system process options

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