



PROPANE SUPPLY PLANNING

Recommendations from the Industry/Marketer Education Working Group of the NPGA Supply and Infrastructure Task Force

The winter of 2013-2014 presented one of the most difficult supply and distribution challenges the propane industry has faced. As a result, the National Propane Gas Association's (NPGA) Executive Committee authorized the formation of a Supply and Infrastructure Task Force to address the various challenges the winter posed for the industry and to make recommendations for future action on the part of industry and the government to avert a repetition of these events.

Within the task force, a total of six working groups were formed to address specific areas. This document represents the work of the Industry/Marketer Education Working Group (Working Group) of NPGA's Supply and Infrastructure Task Force. It consists of a variety of suggestions developed by the Working Group through a series of conference calls and meetings, and it is intended to aid NPGA member marketers in creating and implementing their own propane supply plans.

The Working Group emphasizes that there are no "one size fits all" type solutions to the problems that occurred in the winter of 2013-2014 and that all propane supply planning must be customized to each marketer's region, sources of supply, customer base, and numerous other factors.¹

The document contains two parts.

- **Part I - Recommendations for Marketers in Supply Planning (Page 2)**
- **Part II - Recommendations to NPGA and State Propane Associations (Page 13)**

¹ *The recommendations herein are not industry requirements, technical instructions, standards of care, or legal advice. Any consequences resulting from use of these recommendations are solely the responsibility of the reader.*

Part I –Recommendations for Marketers in Supply Planning

These recommendations are offered for a propane dealer that faces its peak seasonal demand during the winter heating season and/or brief agricultural peak demand during crop drying season. These recommendations were developed from data provided by various industry reports and publications as well as the vast experience of the Working Group members.

The recommendations are organized into a variety of subject areas:

- 1. Demand Forecasting**
 - 2. Supply Contracting**
 - 3. Transportation and Logistics**
 - 4. Primary Storage**
 - 5. Marketer Plant Storage**
 - 6. Customer Storage**
 - 7. Capital Funding/ Cash Flow Management**
 - 8. Shale Gas Issues**
-

1. Demand Forecasting

Supply planning for the propane marketer begins by creating a forecast of projected demand for the coming year. This can be done by considering past gallon sales and a review of future weather forecasts, among other factors.

A helpful first step in looking forward is to look back at past gallon sales, which can be analyzed by month over the past year or over longer term periods to arrive at an initial forecast for the coming year. This initial estimate can then be refined based on anticipated changes in demand for the coming year including those resulting from customer gains or losses and forecast changes to weather for the coming season.

Forecasting propane demand using weather planning techniques provides a particular challenge. There are a variety of weather forecasting services, both public as well as private, available to propane marketers. Long-range weather forecasts are generally only notional, suggesting that the season, still many months away, may be generally warmer or colder than normal. Short range forecasts are more accurate and useful with the accuracy of 30-day and 15-day forecasts having increased dramatically over the past decade. A proactive marketer can use a 60, 30, or 15-day forecast to modify its supply plan as needed.

Over the past decade, various regions of the United States have experienced both extremes of the weather with some of the warmest winters on record as well as the coldest as evidenced by the “Polar Vortex” weather phenomenon this past winter. So, for which extreme should a marketer plan?

Most marketer supply planning is based around the concept of a normal winter, but a marketer should also be more flexible and consider the possibility that warmer-than-normal and/or colder-than-normal conditions may exist. However, planning around possible colder conditions should take into account

more than an expectation that a supplier will have extra loads available for sale. Rather, it should include plans to have wet propane that can be acquired under conditions of market stress. Making changes to a supply plan, even only 30 days out, can mean the difference between success and crisis for a propane retailer during challenging times.

For other propane markets, such as crop drying, similar forecasting tools can be used to help gauge demand. Crop harvest and precipitation forecasts are available and can be used to plan for anticipated crop needs. These forecasts are available seasonally, and with 30-day, 60-day and longer time horizons.

In summary, supply planning begins with a firm understanding of total gallon needs for the coming year and how these needs can be affected by weather, customer growth or loss, crop drying, and any other factors at play in a particular market. By making use of available forecasting tools, a marketer can be proactive in adjusting its plan to ensure that it will have propane product when customers need it.

2. Supply Contracting

Typically, marketers contract with mid-stream companies who sell to the marketer from pipelines, rail terminals, storage facilities, or directly from the gas plant. Here are some of the basic elements of propane supply contracting.

A. Evaluate the strength and reliability of the supplier.

First and foremost, a marketer must evaluate a potential supplier on its ability to provide wet product, particularly during periods of high demand. How do you gauge reliability? Prior experience, reputation in the industry, a supplier's asset strength and underlying financial capability, and recommendations from other customers should all be evaluated before any supply contract is signed.

Here are some questions a marketer may wish to ask when interviewing a prospective supplier:

- What winter-to-summer ratio can you provide?
- What alternatives or back-up supply can you provide?
- Can you tell me where the propane is coming from, and is this source reliable?
- Will you commit contractually to deliver the supply I need?
- Can you assist me with transportation if I need it?
- How strong are you in the region where I buy propane and do you have a reliable source of supply?

The role of propane brokers was discussed by the Working Group. The Working Group agreed that brokers play a valuable role in making markets for propane and assisting marketers in meeting their supply needs. Brokers, however, do not control the assets for propane production or transportation and are reliant on asset-based upstream companies for their supply. The Working Group concluded that marketers that are solely reliant on brokers for their supply must have a firm understanding of where the supply is coming from and may be placing themselves at additional risk.

B. Create a comprehensive supply plan.

Supply planning starts with creating a forecast of total propane demand for the business (See Section 1). This forecast is then used to make a load schedule by month, quarter, or season, to be contracted among one or several suppliers. Most supply plans, especially those for larger companies, are broken down by month. For smaller companies or those with highly variable sales, monthly planning may not be appropriate.

Seasonality is an important consideration for most propane supply plans. As a result, most supply contracts have winter/summer ratios. A typical ratio for a marketer may be to “earn” two gallons of winter or peak season volume for each gallon purchased in summer/low season. Because different pipeline systems have different allocation and ratio policies, marketers must learn and thoroughly understand the policies on the pipeline system from which they receive supply and be prepared to operate within the established rules of that system.

Allocation is a difficult issue for marketers to assess and understand. Allocation means the rationing or limiting of product during peak periods. Allocation may be created when a pipeline or other supply system has insufficient product available. Even when the system has adequate product, suppliers may invoke their own allocation when they have inadequate supply to meet their customer needs. For marketers, the key is to thoroughly understand the rules of the propane system where they source their product, and to also understand their supplier’s policies in any period of shortage. These policies should be clearly spelled out in the supply agreement (See Section 2C.)

A key to understanding allocation is to first assess the company’s winter-to-summer ratio, which is the winter-time gallons needed versus total summer volume. Winter is commonly defined as October through March, and summer is April through September. A ratio of 1 to 1 means that the same sales volume in summer and winter, while a 3-to-1 ratio means 3 gallons of winter demand for every gallon in summer.

All marketers with large winter-to-summer ratios need to discuss these needs carefully with their suppliers because most propane plants and pipeline systems cannot accommodate large ratio differences. A primary question with a supplier should always be, “Is this ratio possible, and what alternatives do I have to meet my ratio?”

One option for marketers with large ratios is to source extra winter-only propane from a nearby storage cavern, rail terminal, or other supply point that has winter-only supply. These gallons generally come at a premium to non-peak demand propane and the marketer should be prepared for this. It is critically important to have peak demand gas contracted for well in advance of actual need. In addition to premium pricing, this gas may be “take or pay”, meaning the marketer is required to take the supply or pay a pre-arranged penalty reflecting the supplier’s costs in making the gas available.

C. Contract for a significant portion of anticipated needs.

An important question that each marketer must ask is: how much of its projected demand for gallons should it commit itself to for contracting purposes? In this context, the term ‘contracting’ means a firm commitment by the marketer to purchase and the supplier to deliver the product at a given place in a certain time frame. It does not necessarily mean that the price is fixed or locked in. Pricing and the basis of pricing are separate issues.

After considerable discussion by the Working Group, the consensus was that a marketer should contract for approximately 50 to 70% of its supply as long as there is firm demand for the product. This range of 50 to 70% allows for some reduction in perceived demand due to warm weather or reduced crop harvest conditions. This range also allows for some flexibility in purchasing spot gas under more favorable economic conditions compared to traditional supply conditions. At the same time, the range is close enough to the total estimated demand that the total gas needs for the season are readily achievable. For areas where supply is difficult to source in winter or where outages are common, marketers should consider contracting at the higher end of the range.

When finalizing supply plans, the written contract with the supplier becomes critically important. This document outlines both the marketer's responsibilities as the purchaser and the supplier's duties as seller. Be sure to have answers to the following questions:

- What obligations does the buyer have to purchase the product, by month or season?
- Does the buyer have to purchase the total volume if weather is warm, and can it purchase extra volumes during cold periods?
- What seasonal ratios will the seller give, and are they providing the buyer with the full allocations they earn from the buyer's business on a given system?
- What recourse does the buyer have if a supplier defaults, and what can the seller do to the buyer if it fails to perform?

Prior to executing any supply agreement, a marketer should carefully review the contract for its important terms and conditions. Items to be scrutinized may include the overall and monthly volumes, winter-to-summer ratios, earned allocation at a pipeline or terminal, pricing, and any other items that are critical. Ask the supplier to clarify any items that are unclear, and if necessary, revise the contract so that both parties are in full agreement on the terms of the deal. Because of the importance of supply planning and the critical nature of any supply contract, marketers are urged to get third-party advice in reviewing the plan and associated contracts, as outlined in Section 2(G).

D. Prepare contingency plans for additional needs.

What if a marketer needs more propane than forecasted? Where will this extra gas come from? Every marketer should have a contingency plan for extra supply if the need arises. Extra propane can be contracted for at storage wells, rail terminals, and other supply points. Contingency gas may come at a premium, or there may be an upfront fee to reserve the right to procure the gas. The supplier will certainly have incurred extra costs to make this gas available, and marketers must build these extra costs into any supply plan.

E. Build diversification into the supply plan.

Just as with a stock portfolio, good supply plans are diversified. If a marketer is totally dependent on one supplier, one loading facility, or one production plant, it may be in for unpleasant surprises during the winter season. The 2011 PERC Study² noted, "Marketers who rely on a single source of supply will always be at risk." A diversified plan will procure gas from several sources. Planning must also include calculations of earned withdrawal rights, or allocation, if rationing policies exist. For example,

² "U.S. Propane Industry Infrastructure and Deliverability Study," prepared by Purvin & Gertz, Inc. for the Propane Education Research Council (PERC), January 2011.

if the supply plan calls for sourcing gas from a pipeline that requires lifting gas during the summer in order to receive supply in winter, this activity must be reflected in the plan and acted upon during the season.

One key to assuring diversification is knowing where the gas supply is coming from and ensuring that it comes from multiple sources. If a marketer has three different suppliers, but they are all sourcing their product from the same pipeline, refinery, or rail terminal, then there is in fact no diversification of supply. In order to diversify, a marketer needs to have a full understanding of where the supplier gets its propane and be prepared to change plans and seek additional supply if needed.

F. Be prepared to modify the plan proactively as the season progresses.

A sound initial plan is just the first step. Every plan must be modified during the season as conditions change. Suppose a company has been unable to lift summer gallons in order to earn winter allocation at a facility. This change of events must be reflected in the plan, and a replacement source of supply located for these gallons, if needed.

G. Seek advice as needed.

At one time, supply planning in the propane industry may have been as simple as sitting down with a key supplier each spring. With changing conditions and economics, this is no longer the case. The Working Group strongly recommends that marketers seek third-party expert advice in the creation and implementation of their supply plans. There are numerous supply and risk management consultants serving our industry that can assist with physical supply procurement as well as hedging and other risk management tools.

The Working Group also recommends that marketers look beyond their traditional suppliers in seeking advice and consultation. While any given supplier may generally be knowledgeable about a particular area market, it may also be biased by its desire to serve and retain a customer's business. Therefore, the Working Group recommends seeking unbiased advice from a supply expert who can act independently and serve to protect the client's financial interests.

One important advantage that a third-party advisor can bring to a marketer is an analysis of mid-stream suppliers' capabilities in a region. It is increasingly difficult for a marketer to judge how varying suppliers perform each season. A consultant may be familiar with a variety of suppliers across markets and bring the broad perspective to you locally.

Of course, good advice is often not free. While there may be costs in obtaining supply planning advice, this cost can be looked at as a type of insurance policy to help ensure that vital supply is available when needed. Marketers can also find help within NPGA or state associations. NPGA's Benchmarking Council represents one excellent way to gain new perspective and ideas.

H. Perform for your supplier.

Once a marketer has found a reliable supplier, it should show the same commitment and reliability as is expected from the supplier. This includes paying promptly, purchasing according to schedule, and engaging in frequent communications. Marketers should treat suppliers as they expect to be treated. The best marketer/supplier relationships offer ample benefits to both parties.

Here is a check-list to consider when evaluating how a marketer perform for its supplier:

- Do I plan well in advance with my supplier?
- Do I communicate often and let my supplier know in advance of any changes to my plan?
- Do I purchase the required volumes according to the terms of the contract I agreed to?
- Do I pay promptly and as specified in my contract?
- Do I value the relationship and seek to build on that relationship?

I. Beware, the supply landscape is changing.

The supply landscape throughout the United States is changing, and the need for a well-conceived and executed supply plan is more critical than ever. The propane industry has traditionally relied on propane inventories to build automatically during summer as traditional heating demand abates while production continues at a steady pace. This seasonal build created a supply pool to draw from when the next winter season arrived.

However, new propane export capabilities and higher demand and prices for propane overseas now mean that surplus propane can be shipped away during the summer and those inventories may not replenish as they once did. Marketers are urged to be vigilant about propane supplies both in their region and nationally and to be proactive in their planning both for the near-term and their entire season.

3. Transportation and Logistics

Having ample gas at a supply point has no value if it cannot be transported. The ability to move propane is every bit as important as procuring it. Transportation planning goes hand-in-hand with supply planning and has many of the same characteristics.

Marketers must decide whether to own their own transportation assets, to subcontract this role to outside contractors, or to have a blend of the two. If subcontractors are used, they must be assessed for reliability and performance just as core propane suppliers.

For marketers with large winter-to-summer ratios, transportation is a large part of the overall supply puzzle. If a marketer needs extra propane to meet seasonal or emergency demands, it may need to travel long distances to obtain it. Marketers should have discussions with carriers about the potential for traveling to distant storage caverns or other supply points if the need arises. Discussion points should include applicable freight rates and whether the carrier will have the equipment and personnel available to make the trips. The need for long distance transportation of propane often occurs when the industry is usually at its busiest and equipment is in short supply. This reinforces the critical nature of pre-planning for marketers.

Also, the shale gas industry, which drills for natural gas in areas that are often not connected to pipeline infrastructure, is using much of the country's gas transportation assets. These include propane transports and rail cars that have traditionally been used to support the retail propane industry. The retail propane industry now finds itself without the benefit of many of these assets, which makes the transportation portion of the supply puzzle much more difficult. This issue is covered in more detail in Section 8.

4. Primary Storage

May 2014

7

NATIONAL PROPANE GAS ASSOCIATION

1899 L Street NW, Suite 350 | Washington, D.C. 20036
202.466.7200 | www.npga.org

Primary storage facilities generally consist of underground salt domes or caverns, which serve as the main repositories for propane storage in the U.S. Marketers can lease or sub-lease storage in these facilities and then load either transports or rail cars directly from the facility during peak season, or tender the gas for further movement in a pipeline system when needed.

The Working Group encourages marketers to explore opportunities for maintaining propane storage in primary caverns. Because these facilities have tremendous scale economies, primary storage is generally less expensive on a per-gallon basis than bulk plant storage. In addition, primary storage facilities are often gas trading hubs, so propane can be easily sold between marketers and suppliers at the facility of need without the propane having to be physically moved.

For the marketer, purchasing and storing gas in a storage facility offers its own set of costs and challenges, such as the cost of storage and getting the gas to market on a timely and cost-effective basis. For some marketers, these challenges are more than offset by the benefit of owning a wet storage position. Smaller marketers may not be able to store propane directly. However, most suppliers offer programs where even small marketers can participate in storage for a fee. This is most commonly accomplished as part of a pooled arrangement where the supplier contracts for storage and arranges for the purchase of product that is then shared jointly by a number of customers.

Buying liquid propane in primary storage has a two-fold effect. It offers protection for supply needs, but it also serves as a long hedge, meaning that the price of the product is established in advance of its anticipated need. Of course, locking in the price can have both a positive outcome and a negative outcome, depending on whether the product price moves up or down at the time of retail sale.

The 2011 PERC Supply Study noted that there is ample primary storage available in the US for use by marketers, with 123 million barrels available for storage in 2011. The study notes that the industry generally stores less than 80 million barrels annually. The study highlights the critical need for marketers to store propane to alleviate regional supply shortages. "Simply put, if propane marketers would acquire more propane in the summer months and place it in storage, pipeline capacities would not be tested during periods of extended cold." Regionally, the study highlights the Midwest and the TEPPCO system as the area most in need of stored gas volumes. "The key to TEPPCO is filling its storage. Summertime acquisitions by marketers are the keys to the success of this pipeline."

Propane storage has no value unless it is filled. Someone must purchase, pay for, and own propane well in advance of its actual need. Whether it be the producer, mid-stream company, marketer, or speculator, an ownership interest must be created for propane storage to be beneficial. Every marketer must be fully aware of its role in this process. For many, this confers a responsibility to purchase propane for storage, either through a pre-buy program or by owning the barrels directly.

5. Marketer Plant Storage

Marketers across the U.S. have differing opinions about the need for plant storage. Marketers that are located close to major propane storage centers or pipeline systems, or those that have excellent transportation equipment, may not feel the need to invest heavily in storage. Large storage plants may also be difficult or impossible for marketers operating in urban or densely populated areas to construct and operate. In contrast, other marketers see storage as a key strategic asset, offering both

the opportunity to store gas at favorable pricing and the ability to withstand short-term supply shortages with a cushion of extra propane.

The PERC Supply Study surveyed several thousand marketers in 2011 regarding sales and plant storage and received 618 responses. The purpose of the survey was to determine how many sales turns marketers made through their storage and whether these storage levels were adequate for peak season needs.

The study estimated that a marketer that turned over its storage inventory 14 times per year would have, on average, about 14 days of peak season demand on hand. The study found that marketers that responded to the survey actually turned their inventory 14.3 times per year, with the ratio differing slightly by size of marketer. Small marketers (less than 1.2 million gallon sales) averaged 10 turns, medium sized marketers (5 to 10 million gallons) averaged 18 turns, and large marketers (more than ten million) averaged 15.6 turns. This means that small marketers as a group have more storage as a percentage of their sales, followed by large marketers, with mid-size marketers having the least storage. The study concluded that marketer plant storage was, on average, adequate for most peak demand conditions.

The study further showed that a significant percentage of marketers turned their storage at far greater rates than the average. Twenty four percent of companies surveyed (148 of 618) turned their storage more than 30 times per year, and 5% turned storage more than 50 times per year. The study concluded that these levels of storage may be inadequate, and that supply problems caused by this group could have an effect on the entire industry during peak demand. The study stated, "(Supply) problems caused to all are associated with the business practices of a few."

In addition, the February 2014 edition of LP-Gas Magazine showed the differences in various marketer approaches towards storage in its article titled "Top 50 Propane Retailers," which posted the results of the publication's annual industry survey. One marketer reported selling nearly 9 million gallons utilizing only 233,000 gallons of storage (a 38 times turn ratio), while another sold 4 million gallons with 995,000 gallons of storage (a 4 times turn ratio). The survey results showed that the average marketer turned its storage inventory 16 times last season. These figures are in line with the PERC Supply Study and point to the fact that some marketers may have less than adequate storage capacity in times of a supply crisis.

The Working Group urges all marketers to evaluate their current plant storage situation, in light of this past season's volatile supply situation. In particular, those marketers who turn their storage greater than 20 times per year are urged to analyze their storage needs. These marketers place additional stress on transportation and supply systems, which then affects all other marketers in a given region. A recommendation from the Working Group is that marketers have a range of ten to fourteen days of supply on hand in owned or directly controlled storage during peak season.

6. Customer Storage

Customer storage, also called tertiary storage, is an important part of the supply equation. The 2011 PERC Study estimated that there was 111 million barrels (or approximately 4.7 billion gallons) of customer storage in the field, nearly equaling the total amount of primary storage capacity in the U.S. The study also concluded that the average tank size for domestic customers was 400 gallons.

Using the data from LP Gas Magazine's 2014 "Top 50 Propane Retailers", and making the assumption that the average domestic propane tank in the US is a 250 gallon tank, retailers that responded to the survey reported 88 million gallons of plant storage but nearly 800 million gallons of customer storage. This means that tertiary storage is nearly 9 times greater than reported marketer plant storage.

This sheer volume of customer storage in the field underscores the importance of filling customer storage prior to peak season demand. The Working Group urges all marketers to implement programs aimed at ensuring customers are full prior to peak season. Areas of focus should include:

- Eliminating "will call" accounts
- Creating budget/ pre-pay/ or metered programs to eliminate credit concerns
- Offering promotional pre-season fill rates
- Working customers on schedules routes

Customer storage is a critical link in the overall supply process. All marketers are urged to evaluate customer accounts to ensure that they are appropriately sized and to implement policies that encourage route filling and off-season filling. **While there are challenges to modifying established practices and consumer behavior, one great benefit of succeeding with these changes is that they have the effect of increasing supply capacity with no additional capital investment on the part of the marketer or the industry as a whole.**

7. Capital Funding/ Cash-Flow Management

This past winter heating season's propane supply situation tested most marketers' capital funding and cash flow management practices. With emergency supply costing up to \$3 to \$5 per gallon, a marketer could be faced with \$30,000 to \$50,000 for each transport load. A mere ten loads could result in an immediate payable of \$500,000 dollars, with retail customers typically taking 30 to 60 days to pay after receiving each delivery. This cash flow imbalance meant small marketers may have been faced with over one million dollars of negative cash-flow in a peak month, if they sold just several hundred thousand gallons.

While government-backed small business loans may be an option to offset the cash flow imbalance, the application process can be extensive and the timing to receive loan approval can be very slow. Therefore, the Working Group urges all marketers to be proactive by revisiting and strengthening their banking relationships and access to capital prior to the next peak season. Here are some possible steps for marketers to take:

- Communicate often and share corporate financial information with capital providers.
- Use information provided by NPGA and other groups to explain this season's supply situation and how it affected business.
- Demonstrate that the business is creating or has created a supply plan that ensures that the negative consequences of any future supply shortages can be reduced.
- Explore increasing credit limits based on demonstrated needs and capabilities.
- Seek secondary sources of capital, such as other banking relationships, that can be called upon as needed.

8. Shale Gas Issues

Shale gas hydraulic fracturing production is transforming the United States from a net importer of propane to the world's largest propane producer, and, thus, a net exporter. The largest propane production areas are the Marcellus and Bakken shale deposits located in the upper Midwest and Northeast. These areas are now creating more propane than can be consumed domestically.

Traditionally, these areas have also been supplied with propane from the Gulf coast by pipeline and rail car. However, as Mike Sloan, a propane consultant retained by NPGA recently stated, "Propane has traditionally flowed from South to North, and increasingly in the future, propane will flow from North to South so that it can be exported from ship terminals in the Gulf."

The shale revolution creates both opportunities and challenges for the propane marketer in regard to supply planning. First, especially for those marketers located in proximity to shale production, shale gas creates an opportunity to purchase propane in the regional market, often at attractive prices. Where then, lie the challenges?

The problem for marketers is two-fold. First, shale production is taking over assets, such as transports, railcars, and pipelines traditionally used by the retail propane industry to move product during supply shortages. Therefore, as an industry we have lost flexibility to move propane to areas of need quickly. Second, shale production, primarily because it is attractively priced versus traditional supply, can lure the marketer away from engaging in and then performing on traditional supply contracts. This can then have a negative impact on building winter allocation levels.

When considering purchasing propane produced with shale gas, marketers need to be aware that shale production is steady-state, and cannot ramp up or down based on seasonal demand. In fact, cold weather often reduces the ability for shale gas plants to make propane due to production constraints. Shale production can also be unreliable, and generally has little or no storage attached to it. When the plant is running, there is propane. When the plant shuts down, there is none. When purchasing propane associated with shale gas, marketers need to ask themselves the following:

- What are the economic benefits of purchasing local production?
- Can a portion of these savings be used to procure secondary/ emergency supply?
- How am I affecting my traditional supply contracts by replacing volume with shale production?
- What will I do if the local production goes off-line, especially during peak periods?

In summary, shale gas is here to stay. Marketers should embrace the opportunities, but be mindful of seasonal pitfalls and the larger strategic issues posed by it.

Part II –Recommendations to NPGA and State Associations

The following recommendations were developed by the Industry/Education Working Group of NPGA's Supply and Infrastructure Task Force. The recommendations provided suggest actions that NPGA and/or State Propane Associations could take, to the extent feasible, that would facilitate the implementation of the recommendations suggested in Part I of this document.

1. Demand Forecasting

NPGA should make available to propane marketers information that could affect propane demand such as short-term and long-term weather forecasts as well as crop report updates as the information becomes available. This would be accomplished by referencing relevant websites so that marketers can access the information themselves and make appropriate judgments of how the information may affect their specific projected demand.

NPGA should also consider a more formal advisory alert system for marketers and suppliers when regional or national propane inventories drop below certain levels (which are to be determined) so action can be taken before supply crises occur.

2. Supply Contracting

NPGA and/or state associations should hold educational sessions (presented by appropriate speakers) for marketer members at various industry meetings including the national trade show. Topics could include:

- Changing domestic propane production landscape due to shale gas.
- Supply planning basics for marketers.
- Risk management and hedging.
- Contracting in primary storage.
- Bulk plant permitting and construction.

3. Transportation and Logistics

During the past winter heating season, NPGA was very successful in working with various federal agencies such as Department of Transportation, Federal Energy Regulatory Commission and Department of Energy to obtain as much relief as possible to ease propane transportation. Moving forward, the Working Group recommends the following:

- NPGA should seek a permanent increase in the Federal weight allowance for propane transports to 85,000 lbs.
- With regard to Hours of Service (HOS), NPGA should seek reinstatement of the previous 34-hour restart provision, which had permitted restart after 34 consecutive hours (as opposed to the current requirement which specifies the rest period must consist of two 1-5 am time periods).

Also, NPGA should ensure that marketers are aware of the HOS relief available to drivers traveling through multiple states even when some of those states do not themselves have HOS waivers. This assumes the driver is providing relief to a state in which a waiver has been

granted. This information is contained in the document titled “Guidance for States on Relief from Federal Motor Carrier Safety Regulations in an Energy Emergency” and should be made available to NPGA members. An excerpt from this document is shown below:

Are motor carriers exempt from the safety regulations throughout their route even though they may be driving through one or more states in order to provide relief to another state?

A declaration of emergency by the Governor (or other authorized official) provides the temporary exemption to any motor carrier providing relief to a state (or affected area of a state) regardless of where the motor carrier’s starting point. This means trucks drivers passing through one or more states to service the needs of another state where an emergency or disaster has been declared are covered by the regulatory relief if they are hauling supplies needed in the recovery effort.

In the event of a fuel shortage this would include any refined petroleum products, and any biofuels including biodiesel and ethanol. The only requirement is that the motor carrier be providing direct emergency assistance to the area in which an emergency has been declared.

- NPGA and state associations should seek a better understanding of the effects of the Cochin pipeline reversal and the TEPPCO 16 inch line reversal, which is now carrying ethane south to the Gulf region of the U.S., and advise the industry of the ramifications for winter supply.
- On the Dixie Pipeline, NPGA should consider revisiting the August, 2012 ruling by FERC that denied the Dixie’s proposed Tariff Proposal 99.1.0 revising injection allocation. NPGA supported the proposed revisions to Dixie’s injection allocation policy, which sought to eliminate the potential for supply disruptions due to a short-haul shipper having approximately 50% of the earned injection allocation on the system. This allocation imbalance contributed to supply disruptions and economic distress on the Dixie system this winter.
- To the extent possible, NPGA should monitor the status of transportation assets used for the retail propane business and how the shale revolution is affecting transportation availability.

4. Primary Storage

NPGA should promote the increase in primary propane storage in the US, including:

- Opening of the Finger Lakes storage facility in New York.
- Repair and re-opening of the Todhunter storage facility in Ohio

NPGA should also monitor and report on the closure or repurposing of other primary propane storage facilities, including the Energy Transfer facility in Hattiesburg, MS. When facility closure is likely to have a material effect on propane supply deliverability, specific plans should be created to address concerns.

5. Marketer Plant Storage

May 2014

13

NPGA and state associations should work to reduce restrictions that prevent marketers from adding plant storage. Specific actions could include:

- Creating an advocacy and support group for marketers facing opposition in building or increasing storage.
- Assisting in creation of strategic plant sites in hard-to-build regions such as the Northeast, where multiple companies could share a common plant facility (recommended by the 2011 PERC study.) This is a common practice in the fuel-oil industry.
- Develop closer working relationships with other stakeholder groups that rely on propane, such as farmer associations, and partner with them in proposing any new storage initiatives in contested regions of the country.

6. Customer Storage

NPGA should vigorously oppose regulatory restrictions that seek to limit or reduce customer storage inventories, especially those posed in the International Fire Code Chapter 61.

These regulations seek to restrict the amount of fuel stored on-site and place additional stress on propane infrastructure. In essence, these regulations are promoting “just in time” inventory management situations for propane customers in populated areas.

NPGA should also promote enhancing customer storage inventories, especially at industrial and agricultural sites.

7. Capital Funding/ Cash Flow Management

The working group does not believe there are adequate government programs that can assist propane marketers with liquidity in emergency supply situations.

NPGA should hold educational sessions for marketers addressing cash-flow and capital management practices.

8. Shale Gas Issues

NPGA should facilitate a better industry understanding of how the shale gas industry will change propane deliverability and supply over the next decade. This includes:

- The shift from the Gulf to the North and Midwest as the primary region of domestic propane production.
- The creation of new supply in areas that have previously relied on pipeline or rail delivery.
- The retail propane industry’s loss of pipeline, trucking and rail assets as these are shifted to shale gas usage.

NPGA needs to educate the marketer community on the changes taking place and the ramifications of these changes. Actions can include:

- Immediate release of the consulting reports presented at the Clearwater Beach Board meeting.

- Educational sessions at NPGA meetings and state association conventions