# BEFORE THE SECRETARY OF AGRICULTURE AGRICULTURAL MARKETING SERVICE

In the matter of:	)	
	)	
Proposed Amendments of Tentative	)	Docket No.
Marketing Agreements and Orders	)	A0-14-A77, et al.
	)	
(Class III/IV Product Price Formulas)	)	DA-07-02
	)	

## Post-Hearing Brief of the National Milk Producers Federation

The National Milk Producers Federation (NMPF) hereby submits its post-hearing brief in the above-captioned proceeding. NMPF is an association that represents the interests of more than 50,000 of America's estimated 65,000 dairy farmers.

The proceeding was initiated to consider proposals to amend the Class III and Class IV product price formulas applicable to all Federal milk marketing orders.

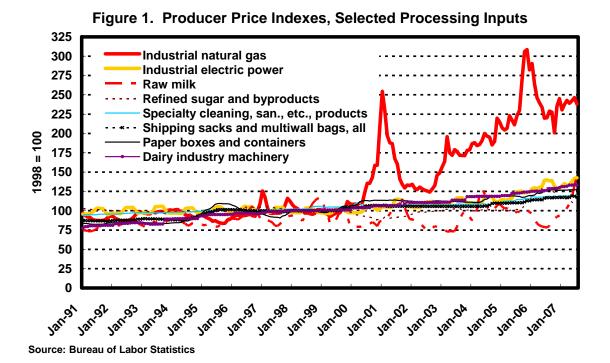
### NMPF Advocates an Energy Cost Adjustor

The most volatile element of dairy processing costs, by far, has been energy. Increases in other costs have been more gradual, and have been partially offset by increased labor and total factor productivity in the manufacturing process. (Exhibit 24/24a) In recent years, however, energy price swings have overshadowed other changes in cost and productivity. The volatility of these costs make a fixed make allowance inappropriate. When energy prices rise dramatically, fixed make allowances fail to provide adequately for plant costs; when they fall precipitously, processors receive an unfair windfall at the expense of producers. For example, the make allowance in place in

late 2005 was inadequate to cover the dramatically increased energy costs at that time.

On the other hand, if a fixed increase had been implemented on the basis of the extraordinarily high natural gas costs incurred in late 2005, the resulting make allowance would now be excessive, as natural gas prices have fallen by nearly 25%. Figure 1 demonstrates the volatility of energy prices, compared to other dairy processing inputs.

(This figure updates Exhibit 24-A using BLS data noticed at Transcript, July 10, p. 2766.)



NMPF therefore urges USDA to adopt a mechanism that would adjust the make allowances on a monthly basis for changes in energy costs. For this purpose, NMPF recommends that USDA use the most recent available Producer Price Indexes for Industrial Electricity and Industrial Natural Gas. A regular adjustment to this highly volatile element of the cost of dairy processing is the best way to maintain equity between producers and the processors of the benchmark products, and to avoid frequent contentious make allowance hearings. These hearings have, themselves, become

disruptive to industry cooperation. Reducing their frequency will contribute to orderly marketing.

NMPF recommends that the energy cost adjustors be calculated as follows:

Energy cost adjustor =

[ (Industrial Electricity  $PPI_{current}$ /Industrial Electricity  $PPI_{base}$ ) – 1] \* Electricity  $Cost_{base}$ 

+ [ (Industrial Natural Gas  $PPI_{current}$ /Industrial Natural Gas  $PPI_{base}$ ) - 1) \* Fuels  $Cost_{base}$ 

The Producer Price Indexes (PPI's) for Industrial Natural Gas (BLS Series WPU0553, Base = Dec 1990) and Industrial Electric Power Distribution (BLS Series WPU0543, Base = 1982) are published each month by the Bureau of Labor Statistics and are available on www.bls.gov. (Exhibit 24, p. 2; Transcript, July 10, p. 2766)

The base energy cost for each product should derive from the manufacturing cost study or studies used to establish the adopted make allowances. If the make allowances are a weighted combination of two or more studies, the energy costs should be a similarly weighted combination from those studies.

Four sets of electricity and fuels costs, each deriving from a set of manufacturing costs under consideration for this hearing, are presented below. The first two sets are data for 2004 and 2005 collected by the California Department of Food and Agriculture (CDFA). The second two sets are data focused on July 2004 through June 2005 and on calendar year 2006 collected by Dr. Mark Stephenson of the Cornell Program on Dairy Markets and Policy.

The 2004 CDFA energy cost data were collected as part of the CDFA processing cost data that were used in the calculation of the current make allowances; these energy cost data were originally provided by CDFA staff in a previous proceeding. (Exhibit 24,

p. 5) Similarly, the Cornell energy cost data for July 2004 through June 2005 were collected as part of the data used in the calculation of the current make allowances. (Exhibit 24, p. 5; Exhibit 7, pp. 22-23) This was originally presented by Dr. Stephenson in a previous proceeding. (Transcript, September 14, 2006, pp. 133-134, and Exhibit 77, p. 4, Docket No. AO-14-A74, noticed in the current proceeding: Transcript, July 10, p. 2764)

The 2005 CDFA energy cost data were presented for the first time in this proceeding, and were collected as part of the updated CDFA processing cost data under consideration in the current proceeding. (Exhibits 44, 9, 10, 11, 12)

The Cornell energy cost data for 2006 were also presented for the first time in this proceeding by Dr. Stephenson during his cross-examination, and were collected as part of the 2006 Cornell processing cost data under consideration in this hearing. (Transcript, July 10, p. 2762-2764; Exhibit 72) In the figure on page 4 of Exhibit 72, Dr. Stephenson demonstrated clearly that the great bulk of his data were collected for calendar year 2006, although some were collected in the last quarter of 2005, and some in the first and second quarters of 2007. The PPI's for Industrial Natural Gas and Industrial Electricity show that energy prices in the first and second quarters of 2007 were close to the annual average for 2006, so that the energy cost data collected in those quarters should be consistent with using 2006 as a base period for the energy index. Energy prices in the fourth quarter of 2005 were substantially higher than the average for 2006; however, the first quarter of 2006, which had the year's highest energy prices, also has the smallest weight in calendar year 2006, so that these are offset. As a result, the average PPI for industrial natural gas weighted by the plant-months represented in that graph is equal to

237.6, the simple average for 2006 calendar year is 236.7. The same weighted average PPI for industrial electricity is 133.2, while the 2006 calendar year average is 132.9. <sup>1</sup> Altogether, then, the Cornell figures should reflect costs only slightly higher than the true average for 2006, and thereby remain a close estimate of 2006 energy costs.

All four sets of energy costs are presented below for comparison.

Table 1. Dairy Product Plant Costs, \$/Lb.

CDFA, 2004						
Cost items	Cheese	Butter	Powder	Whey		
Electricity	0.0086	0.0091	0.0170	0.0334		
Fuels (Gas)	0.0078	0.0019	0.0241	0.0226		
TOTAL	0.0164	0.0110	0.0411	0.0560		
CDFA, 2005						
Cost items	Cheese	Butter	Powder	Whey		
Electricity	0.0080	0.0067	0.0177	0.0337		
Fuels (Gas)	0.0087	0.0021	0.0293	0.0310		
TOTAL	0.0167	0.0088	0.0470	0.0647		
CORNELL, July 2004 - June 2005						
Cost items	Cheese	Butter	Powder	Whey		
Electricity	0.0082	0.0038	0.0102	0.0200		
<u>Fuels</u>	0.0109	0.0099	0.0237	0.0227		
TOTAL	0.0191	0.0137	0.0339	0.0427		
CORNELL, 2006						
Cost items	Cheese	Butter	Powder	Whey		
Electricity	0.0052	0.0044	0.0129	0.0135		
<u>Fuels</u>	<u>0.0105</u>	0.0098	<u>0.0346</u>	0.0301		
TOTAL	0.0157	0.0142	0.0475	0.0436		

Whatever data are used to set the new manufacturing cost allowances, the

in the energy cost adjustors. Each base PPI should be calculated using the same

Sources: CDFA; Mark Stephenson

corresponding energy cost data would be the base energy cost in the fuel adjustor. If a weighted average of two or more of these data sources is used to set the make allowances, a similarly weighted average of energy costs could be used as the base costs

weighting.

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<sup>&</sup>lt;sup>1</sup> This is based on reading of Figure 1 in Exhibit 72 as follows: 2005:Q4 - 9 plant months; 2006:Q1 - 33; 2006:Q2 - 53; 2006:Q3 - 57; 2006:Q4 - 48; 2007:Q1 - 24; 2007:Q2 - 4. This adds up to 19 plant-years. These were used to weight quarterly average PPI's to get weighted average PPI's for the Cornell study period.

There a numerous ways to establish an adjustor based on multiple periods. Three follow.

The first method allows the underlying make allowance to be established as in the past, then applies an independently calculated energy cost adjustor each month. This method can be demonstrated by modifying the nonfat dry milk example from USDA's Preliminary Economic Analysis. (Exhibit 7, p. 22) The Cornell 2004-2005 study showed a natural gas cost of 2.37¢ per pound for 679,652,000 pounds of non-California nonfat dry milk production. The CDFA 2004 data showed a natural gas cost of 2.41¢ per pound for 506,452,000 pounds of California nonfat dry milk production in the CDFA study. The weighted average is 2.39¢ per pound; this would serve as the base period fuel cost which directly corresponds to the weighted average make allowance. The PPI for Industrial Natural Gas averaged 213.4 for July 2004 – June 2005, the period of the Cornell study, and 201.7 for calendar year 2004, the period of the CDFA study. Using the same production volumes, the weighted average PPI is 208.4; this would serve as the base period PPI. In March 2007, the Industrial Gas PPI was 251.6. The fuels component of the energy index adjustment based on March 2007 prices would be:

[ (Industrial Natural Gas  $PPI_{current}$ /Industrial Natural Gas  $PPI_{base}$ ) – 1) \* Fuels  $Cost_{base}$ 

or

$$((251.6/208.4) - 1) * 2.39 ¢ = 0.50 ¢$$

A second method begins by adjusting the underlying make allowance in order to incorporate multiple studies, then calculates a monthly adjustor. By this method, the base energy cost is index-adjusted to correspond to a uniform base PPI. In the example outlined above, the 2004 CDFA fuel cost would be index-adjusted by multiplying it times

213.4/201.7. The result is  $2.55\phi$ , a price-adjusted 2004-2005 fuel cost for California. This and the original 2004-2005 Cornell fuel cost of  $2.37\phi$  are weighted by the same volumes, producing a based energy cost of  $2.45\phi$ , representing a clear base period of July 2004 - June 2005. This energy cost is  $0.06\phi$  higher than in the first example; it would be included in the base make allowance calculation, making it  $0.06\phi$  higher. In this case the adjustment for March 2007 is:

[ (Industrial Natural Gas  $PPI_{current}$ /Industrial Natural Gas  $PPI_{base}$ ) – 1) \* Fuels  $Cost_{base}$ 

or

$$((251.6/213.4)-1)*2.45 \phi = 0.44 \phi$$

The adjustment is 0.06¢ lower than in the first example, but the base make allowance 0.06¢ higher; so the result is the same.

Finally, a third method was used by USDA in its Preliminary Economic Analysis of this proposal. This is very similar to the second approach, but breaks out the energy cost component of the make allowance, and calculates total energy component each month, instead of an adjustor. Again, the result is the same; the important thing is to maintain consistency with the underlying make allowance data. (Exhibit 7, pp.22-23)

NMPF's testimony and statement specify in more detail the construction of an energy cost adjustment, the applicability of monthly energy cost adjustors, and specific language to effect such adjustors. (Exhibit 24, especially pp. 4-5, 8-10, 13-14)

# **Answering Objections to Energy Indexing**

During the hearing, it was suggested that processors can use futures to address energy price volatility and counteract the effects of large energy cost increases.

(Transcript, March 1, 2007, p. 901) Energy futures can even out some energy price

fluctuations over a 12-, 24-, or even 36-month period if a processor has predictable energy use over that period. However, if market expectations are that energy will cost more than the make allowance provides for, the futures will only offer the opportunity for a processor to lock in energy costs that are steady, but too high. That is, use of futures could have moderated the impacts of the fall 2005 spike, but it couldn't insulate a processor from increases over the last two to three years. Ultimately, make allowances must cover at least minimal processing costs.

Energy futures are particularly problematic for balancing plants, which have uncertain energy needs from season to season and year to year. Locking in an energy price for certain future use becomes speculation when energy needs are unpredictable. These are the plants which play the most important role in maintaining orderly marketing, and they have no alternative but to live by the margins dictated by the Class price formulas. (Transcript, March 1, 2007, p. 917.)

At least two witnesses testified that an energy cost adjustor would ruin the regular relationship between the Class III milk price and the cheese price, undermining liquidity in the dairy futures market. (Exhibit 69, p. 29; Testimony, March 2, 2007, pp. 1111-1112) This concern is out of proportion to the potential impact. If the fuel costs in the above surveys fell or rose by half, the fluctuation would be less than a half cent ( $\frac{1}{2}$ ¢) per pound of cheese, or less than one quarter of one percent ( $\frac{1}{4}$ %) of the current price. In most futures markets, such a basis risk in hedging a product from its raw ingredients would be considered tiny. There was testimony throughout the hearing about variations among cheese prices by data collection source, by region, by type, and by package. The variation introduced by a potential  $\frac{1}{2}$ ¢ change in the make allowance is inconsequential.

Furthermore, larger, occasional changes in the formulas arising from annual or bi-annual hearings would create a larger disincentive to using futures markets than would a transparent (and, if necessary, hedgeable) monthly energy-based adjustment.

### **Other Issues**

During the hearing, USDA seemed to suggest that there should be separate Class III and Class IV butterfat prices. (Transcript, p 876-877) Separate butterfat prices have historically been opposed by the entire industry. NMPF remains opposed to them, and particularly opposed to butterfat prices that do not move in unison. Previously proposed butterfat prices were based on an arbitrary allocation of cheese values without adequate economic justification. Separate butterfat prices also lead to perverse incentives to substitute alternative butterfat sources in cheese making. Further, such a proposal was not noticed for this hearing, and is outside the hearing's scope.

We would also like to note the importance at this time of maintaining a reasonable relationship between Federal order and California pricing. Large discrepancies between California and Federal order price formulas can and do put considerable financial stress on Federally-regulated plant, especially in the Western states.

Finally, NMPF urges USDA to adopt these recommended changes in concert with related Class price changes that we have supported in other proceedings. The Class price formulas are part of a larger system, and equity is best served by a more comprehensive consideration of that system.

## Conclusion

Regardless of the data upon which USDA bases its revision of the Class III and IV price formulas, NMPF recommends that any make allowances incorporate an energy cost adjustor. Each set of data offered for consideration in establishing make allowances, including the data upon which the current make allowances are based, has a corresponding set of sound energy cost data suitable for establishing such an adjustor.

Since energy costs are the most variable element of dairy manufacturing costs (other than raw milk prices), energy price indexing is the fairest means of maintaining meaningful make allowances from month to month and year to year.

NMPF has advocated this fair principle when it would be likely to increase make allowances, and we now advocate the same fair principle when it would be likely to reduce make allowances.

If the principle is right, it is right.

We urge Dairy Programs and the Secretary of Agriculture to consider an energy cost adjuster that incorporates monthly energy cost indexing, and to issue its decision in the proper context of an equitable overall pricing system.

Respectfully submitted,

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National Milk Producers Federation