

Minutes

External Peer Review Panel and Stakeholder Meeting

UMR-IWW System Navigation and Ecosystem Sustainability Program Navigation Economic Re-Evaluation

June 18-19, 2007
Sheraton Westport St. Louis – near airport
St. Louis, MO

Meeting Process Notes

The objectives of the External Peer Review Panel and Stakeholder Meeting were twofold:

- 1) Have the principle model architects present the input variables and assumptions, and preliminary results/outputs, to the stakeholders and Peer Reviewers in a format that allows the participants to come away with as clear an understanding of models as possible.
- 2) Document participant input on the assumptions, variables, and outputs of the models.

The invitees included the External Peer Review Panel members, the NESP representatives from the Center of Expertise for Inland Navigation, the Economic Coordinating Committee, the Navigation and Environmental Coordinating Committee, the Project Delivery Team for the NESP Economic Re-evaluation and participants in the Global Grain Modeling workshop held in February of this year. One participant used the conference call feature to participate actively both days.

This meeting was structured so that the architects of the models could give presentations on their modeling work and the participants could ask questions for clarification and provide comments to the PDT and the modelers. It differed from the previous meeting that it was not structured as a workshop to explicitly gather input from the stakeholders to be considered by the PDT for developing scenarios for future modeling efforts.

The Agenda for the meeting is supplied below as well as minutes of the question and answer sessions that followed each section of the presentations. The Agenda was followed fairly closely with two exceptions. The first day ended at around 4:00 p.m. and first session of Tuesday June 19th, extended discussion was allowed past the 8:30 time mark until 8:55 a.m. The rest of the days starting times were adjusted forward by about 25 minutes. This left less time for questions following the Rail Capacity presentation by Mark Burton so that he had sufficient time to deliver the Water Compelled rates presentation. Questions dealing with both Water Compelled rates and rail Capacity were covered during the final question and answer session. The meeting adjourned shortly before 12:00.

AGENDA

Call-In Phone Number: 866-778-1296

Call-In Pass Code: 2798349#

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Monday, June 18, 2007

12:00 Welcome and Introductions *Spitzack and Soileau*

12:20 Presentations on Transportation Demands for Agricultural and Non-Agricultural Products:
Wesley Wilson, University of Oregon
Kenneth Train, University of California at

Berkeley

1. General Introduction and Approach
2. Details of Studies

2:20 Break

2:45 Presentations on Transportation Demands continued: *Wilson & Train*
3. Description of Surveys and Results

5:00 End of Meeting Day 1

Tuesday, June 19, 2007

8:00 Briefing on how all of these effort come together. 10 minutes: *Spitzack*
1. The wiring diagram of how the models fit together 10 minutes: *Manguno*
2. Update on GGM/ Grain Scenario Status. 10 minutes *Manguno*

8:30 Presentations on Non-Grain Forecasts: *Anatoly Hochstein and Nikhil Bhandari, Louis Berger Group Inc.*

1. General Introduction and Approach
2. Details and Results

10:00 Break

10:15 Presentations on Rail Capacity and Water Compelled Rates: *Mark Burton, University of Tennessee*
1. Rail Capacity
2. Water Compelled Rates

11:45 Closing Remarks *Spitzack*

12:00 Adjourn

After the Meeting:

Distribute a report record of the meeting minutes to the participants.

Combined List of Attendees & Affiliations

External Peer Review Panel and Stakeholder Meeting

UMR-IWW System Navigation and Ecosystem Sustainability Program

Navigation Economic Re-Evaluation

June 18-19, 2007

St. Louis, MO

Alex Metcalf	TEMS
Anatoly Hochstein	Louis Berger
Art Wright	Argonne Natl Lab
Barb Naramore	UMBRA
Bob Goodwin	MARAD
Brad Walker	Prarie Rivers Network
Buddy Langdon	USACE LRH
Chris Klenklen	MO Dept Of Ag
Chuck Spitzack	Corps Rock Island
Daryll Ray	Univ of TENN
David Kelly	CEMVS-PM-F
David Paul Vogt	Oak Ridge Nat Lab
Denver Tolliver	N Dakota State U
Don Sweeney	Univ. of MO, St. Louis
Gary Niemeyer	IL. Corn Growers Assoc.
Jack Carr	CEMVR-PM-A
Jeff DeZellar	Corps St Paul
Jim Tarmann	IL. Corn Growers Assoc.
John Beghin	ISU EPR
Jon Brown	USACE LRB
Katie Nelson	CEMVR-PM-A
Ken Barr	COE
Kenneth Train	UC Berkeley
Leif Wildman	IL. Corn Growers Assoc.
Mark Beorkrem	NIC
Mark Burton	UT
Mark Hammond	LRH-NC
Max Starbuck	National Corn Growers
Nikhil Bhandari	Louis Berger Group
Paul Rohde	WCI
Phil Baumel	IA State
R. Travis Holley	USACE LRH
Rebecca Soileau	COE
Rich Astrack	CEMVS-PM-F
Rich Worthington	Corps- HQ
Ron Adams	WI DOT
Scott Whitney	CEMVR-PM
Sherrie Martin	MO DOT
Stephen Fuller	Texan A&M Univ
Susan Wilson	CEMVS-PM-F
Terry Smith	MVD
Wes Wilson	Univ of Oregon NETS

Discussion Notes

UMR-IWW System Navigation and Ecosystem Sustainability Program External Peer Review Panel and Stakeholder Meeting

June 18-19, 2007

Sheraton Westport, St. Louis, MO

Transportation Demands for Ag and Non-Ag Products (Presentation attachment 1) Kenneth Train & Wesley Wilson

Discussion:

1. Did you estimate any cross prices by commodity?

Tested interactions- didn't find any to be significant. Possibly because those things are already incorporated in price and level of reliability.

2. Was there any correlation between real time and distance in model?

There is in the data. Model tends to use independent variation...

3. How does time variable change if you take out distance?

Time becomes less negative-- some times positive.

4. How does it affect the T statistic?

It becomes less significant. These variables are highly correlated with each other. That's the challenge.

5. Earlier included time schedule and weight...

Not two weeks- when they want it compared to when they get it.

6. Did transit times vary by season?

Not in data- it was for last shipment person made- one point in time.

7. How do you capture the role of price at different destinations?

A shipper made a shipment to particular destination and knows the price there. Asked what would you receive at other destination? Some said no other option. Variable for those with other options was price as that destination. Shipper was more likely to send to destination with high price holding everything else constant.

8. If the elevator being surveyed was on the river was there a higher percentage of those that said they had no alternative?

Those on the river had different destinations. Fewest options reported were people with only truck available.

9. You didn't vary on price though?

We didn't vary price. We are going to do that in the next survey.

10. Why bias about switching?

Could be they knew it would be used in this study and were trying to influence it.

11. Was there any evidence of bias in the other direction? Saying they wouldn't switch.
The estimated bias is the average. Could be they are going in each direction. This random parameter could get people going in each direction and this is the mean.

12. Bias is across all modes. Given the number of barge shippers is small, the idea that this is a response meant to affect the study is strange.

13. How did you condition for price of other alternatives?
In revealed preference we have the rate for the alternative they took and all others available.

14. The shut down decision has to be related to price you pay and price you receive- they shut down when they can't make a profit.

15. What if a disaster happened? Like Katrina- rail rates jumped because they could?
This model won't predict change in rates. It will predict how shippers respond to the rates.

16. Fundamentally, we measured elevators (on or off river). We didn't measure farmers themselves. They are making this choice more often now.
We didn't sample farmers. Don't have them in the data. The model can be used if the farmer has the same behavior as elevators. There is some regularity in how people evaluate options. If same behavior is evidenced by farmer, than model is applicable.

17. Good area of future study.

18. How does model deal with new ethanol markets?
Person shipping corn can choose destination. Ethanol plant is one alternative.

19. Is your model based on exports or all grain?
We didn't have destinations past New Orleans. Domestic movements only.

20. Did you try shortening your list of variables?
When you leave out things, the time variable becomes less significant. Shortening this- your less able to deal with time. What I think we need to do to make time enter more significantly is get better and more variables. We don't have data on price paid for commodity.

21. Clearly time variable is a really important predictor- In future we may see changes in time on other modes. Is this a spatial variation issue?
It could be that way we are measuring time here (including wait for equipment) makes variable different. Also, it adds muddiness to measurement.

22. This time includes waiting for trailer, barge.

23. What kind of problem do we have with this in that we have one shipment and one time of year?

One shipment isn't a problem. The way we got the shipments is a good way. The fact that it all happened in one season is a difficulty. The hope is people's responses- way they respond-wouldn't change. UMR- shut down in winter- take out barge alternative when not available. Hopefully people respond consistently.

24. How many shippers are in that barge column?

15 chose barge. There were 101 shipments to barge terminals.

25. When upper miss is frozen no one shuts down because of that.

I don't know how to put this in forecasting mode for dealing with different alternatives. What you'd really like is price paid and price received and the rate. Any positive means they stay in business. That shutdown analysis is not in here.

Note: The following exchange (sections 26-29) occurred so rapidly that the recorder is certain that they did not capture all of the points covered. Clarifications to this draft document were requested due by July 13th, 2007. No clarifications were received.

26. Why did you use a stratified sample when dealing with this? Why don't you factor it to a framework to make it representative to population?

When you estimate this kind of model with random co-efficients with stratified econometrics-it has not been tested. Hopefully someone will solve that econometric problem in next few years.

27. A lot of people have used it and better to do that than use sample that is unrepresentative. There is no reason why you couldn't use it.

There has been quote sampling endlessly. If you use it there is no statistical procedure for estimating correctly. It has been used with other simpler models. What is representative? Do you want representative of people that can use river or large number or barge shippers? That's not necessarily representative of possible users. The issue of improvements on river (river costs increase, improvements lower cost) the benefits come from drawing people from other modes. So contrary to common idea that you need to look at barge users when looking at river it's the other users we need in the sample.

28. We need to understand behavior of each (barge, rail, and trucks). I don't agree that we don't understand econometrics of using quota samples. They are being used for sp work. I think if you go to National Academy of Sciences you will have to make a case to say the sample you've got is representative.

If you use the kind of stated preference we are using with random coefficients the econometrics have not been solved and it won't happen soon. With this new approach we can't use quote sampling.

It's not necessarily non-representative. We have 23 barge terminals that is pretty good because there aren't a lot.

29. You don't know 23 is representative without more research.

30. Is this controllable for type of destination?

That is why we have the random coefficient to represent different people care more or less about reliability.

31. When you change a time variable and reliability variable and ask what they would do its reasonable to assume it doesn't change with other modes...but with price it's not.

32. Wouldn't elasticities for price overestimate?

If all move together response smaller. Except some choose to opt out.

33. But actual elasticities you estimated for price is assuming others are constant?

Not assuming but utilizing independency. Look at rates they face with alternatives. If all rates are same no info. If the rates are different we look at that. The statistics ferret that out. Revealed preference data we are using difference in rates and it's derived from data.

2:20 break.

34. Could you talk with us more about the case in which all shippers are affected by the price. When you think of it as a community that is producing so much corn and it has to be shipped sometime somewhere. It seems to me shippers would adjust amount paid for corn. They will change price paid to farmers. Your analysis works with volume but volume probably remains the total volume that had to be shipped before. It's a matter or who pays for it.

Elasticity's tend to be elastic which is consistent with that.

35. Were going from 80 mil acres to 90 mil acres. One of our concerns is you better lock in your basis. Is that in the model. The point is we're going to move the corn.

That is not in model. That may be why the elasticity's are small.

36. Ownership?

We didn't ask that in survey.

37. Needs to be evaluated in next survey. How many questions were in the survey?

Depends on how many trees you filled in. Coop or not coop we could analyze differences.

38. Time cost reliability, it seems to me sp model should be used in conjunction with generalize costs utility networks.

If we were to draw a demand function it would depend on time and reliability.

39. Costs would be found in generalized cost structures.

How do you define irrelevant?

As part of contacts they would ask about relevance. It's in the report. 232 responses.

40. Like to see a distribution by those who only have barge, rail etc.
I can do that.

41. Don't trust non-grain weights.

42. Reliability changes chart; 50% change- 37 total but I show 27. Is it a type-0?
We think so.

43. Have we made a distinction here between different logistic systems?
No. Obviously responsiveness of shippers there would be different. Reliability would be high with containers. Level of variables that's fine but if it influences behavioral parameters.

44. How many commodity groups do we have?
3- a, b, & c entered as dummy variables in model.

45. What kind of recommendation in terms of type of research that would be needed to make this work?
I believe in sensitivity analysis. If you put in these models and find it's overestimating you could limit. Would need a much larger sample.

46. Data out there- question of money?
It's do-able with time and money.

47. If you break this between boat and container. If you break it-it would be more responsive.

48. Given 2/3 of inland waterway doesn't deal with Ag as much as UMR. It is important.
If growth in demand is ethanol than maybe it's less important. Need 10 times larger sample.

49. Because you have such a wide range in amount shipped-Are these results applicable to small and large shippers?
This is percent of shippers who would switch not percent of tons shipped. Multiply by tons shipped.

50. Maybe focus in on main commodities and just do those.
Need consensus on which commodities to use. On Ohio we are doing that for coal.

51. Do you know whether the respondent was shipping or receiving? And do you know if there is a mix between up and down river traffic?
*I could look case by case. The sample was drawn in a way to point to people shipping upstream (with exception to IL). Shippers and receivers: not in data. Common shipping practices. We didn't pre-load if they were a shipper or receiver next time we will.
Cement example*

52. Large number of respondents who said they have no alt it may be a location effect of water. If you could show it associated with water...
a consequence of not investing is shut down. Good idea.

53. Upriver traffic, is that because downriver traffic is insignificant?
When I looked at it a few weeks ago I looked at coal shipments terminating on Upper Miss. I can't answer directly except to say there are major movements that terminate on UMR.

54. Great Lake ports accept barge traffic off river system are those included? Ex Milwaukee
It looks like yes. We have Mich and Chicago a couple in Wis and one looks like it's on the lake.

55. I can't tell that from graphic in report.

56. It looks like there's a big difference in price per ton for waterway rail vs truck. The mean for barge 159, rail 350, truck 329. Rate as percentage of price becomes important.
We should have done that I agree.

57. We really want to get price paid for product, received for product, and rate and all thee combine for net profit.

58. Do you have to change survey?
Yes. We have and have conditional approval.

Tuesday, June 19, 2007

**Briefing on Interim Report (presentation attachment 2)
Chuck Spitzack**

Discussion:

1. Will the NECC/ECC be part of internal review?
Yes.

**How Models Fit Together (presentation attachment 3)
Rich Manguno**

Discussion:

1. Where does the Burton study on capacity and railroads fit into this diagram?
I see us using Mark's info as another consideration that is information that can bear on a recommendation, but it's not formally used in the NED benefits. Paid for by NESP.

2. Having problems understanding elements that work with shipper model. Basically we have cost, time, and reliability as variables they incorporate in equilibrium. Not clear to

me limits on rail and truck were going to be included in equilibrium analysis. We know this could be a problem in future leading to overflow onto water. Chuck said there would be analysis. We may have different traffic because of constraints elsewhere in model.
Good question, the reality is we are not as far as we want to be. We aren't formally capturing those effects. It's a limitation of what we are doing. The survey model does not have that capability.

3. Potential increase in container traffic. Are we going to lose 50% of our traffic and not have ability to point out 50% could be re-gained from other traffic.

We have a couple of things going on now to look at that potential. The reality is while we are going to try to quantify as much as we can in that regard, I am positioning us for the outcome that much of that discussion will be qualitative and specific. We will present that in the report but it's not currently part of that equilibrium.

4. Tech review standpoint: I don't have WAM?? runs as part of my scope to review.

We are using same transit curves from Dec 04 report. ITR from then will address that.

5. Cost of delay box= average hourly tow operating cost?

Yes

6. Waterway movements from existing traffic? What year?

2004.

7. Rate data is from 2006?

Yes

8. GGM- has study team finalized scenarios to run model?

Yes, on next slide

9. When will ITR get GGM outputs?

We have them now. It's a matter of accomplishing distribution of it.

10. When will we get a reviewable product to describe mechanics of survey model?

That's a nets product.

11. We are waiting for that and time is running.

Spoke with Keith and will have a call to discuss accomplishing that piece of it.

12. Once ITR is done- when will GGM and survey model go to NECC/ECC?

I don't know why it wouldn't be available to NECC/ECC. Jack and Rich will distribute it to NECC/ECC.

Grain Model Input Specification

Parameter	Low Traffic	High Traffic
U.S. Corn-Based Ethanol Demand	EIA 2007 (11.2 billion gal by 2012; 13.5 billion gal by 2025)	Constant @ 5 billion gal
U.S. Corn Yields	1.6 bu/yr increase	2.0 bu/yr increase
ROW Corn Yields (Rest of world)	GGM Base Case	25% increase in GGM Base Case
U.S. Area	107% of 2002-2004 average	107% of 2002-2004 average
U.S. Rail Capacity	20% increase in 2000-2004 max car loadings	10% increase in 2000-2004 max car loadings
China Corn	Exports = 8 mmt	Model Solution
Panama Canal	No Expansion	Expanded by 2020
UMR-IWW Infrastructure	Expanded	Expanded

13. Under low traffic scenario Panama Canal built by 2020 for low and 2012 for high. Had a meeting and was concerned we weren't thinking of containerization and how important it will be in future.

14. At NECC/ECC in May we asked for parameters and how you had established these scenarios. We never got that report. Are these set now?

Yes

15. Are you saying we have no input?

I'd not say you have no input. There will be comment and suggestion. We have taken these assumptions and run through the grain model and produced traffic flows. We are using that in the system modeling to produce traffic. We have moved out on that.

16. We have issues with your assumptions, particularly with ethanol, we've asked for reasons behind these assumptions and we haven't gotten them.

We are working on a report called scenario report which will be provided to EPR and stakeholders that will document process on how we came up with grain and non-grain scenarios. We are open for comments but need to move forward.

17. Right now as we sit here ethanol is 6 bil gal and by end of year 9-10 bil gals. Will discuss later but EIA estimates are out of wack and not representative of reality. 2/3 of ethanol production in 2050 are from non-corn and that technology doesn't yet exist. You are running the model and we have problems with the assumptions. We will be on outside looking in-in terms of input.

We are giving you the scenario report that will document our process.

18. You need to produce this to us on time so we can have input. We didn't discuss it at NECC/ECC.

We need to capture all comments and review. We may not be able to get them in the model. We need to document comments and answer your questions as to why. We should also give an assessment of what would happen to model if we used your input in it.

19. That means there is no input to the model.

We have had input to the model in workshops and they were considered while coming up with scenarios.

20. Than why can't you give us the reasoning behind the scenarios now?

21. One thing that relates to what has been said is the base line situation that we are using here. Many of the scenarios that we saw the first time looking at the model we could pick specific events and show they were more likely. We could use scenarios away from that. Since we don't have that, I'm afraid even under best circumstances people will not understand results. I think the yield situation is extremely important. I don't know if you have it backwards there or not in terms of low vs high traffic...

The notion wasn't to assemble all assumptions such that it was effect of one vs other. It was to assemble them to have some logical consistency.

22. More attention needed to be given to international yields and especially area. 107% that came from CRP which wasn't realistic. There wasn't enough acreage coming from other crops. The baseline doesn't represent most likely situation. I don't know if there's time but I would concur that there needs to be a baseline set of assumptions that are more inline with real world and do scenarios off that.

23. In regards to by products of ethanol, DDG is that captured?

It's a function of ethanol production. Given underlying assumption of ethanol production than that amount of ddg is introduced into system.

24. Did you re-capture that back in the non-ag forecast?

It specifically is DDG. What label goes on it is less consequence.

25. No, not part of non-ag forecast. It's in the grain model.

In terms of ethanol one of the emerging issues is role of sugar cane? Is there consideration in high traffic to that? Since sugar cane is cheaper than corn to make ethanol from is there consideration to releasing corn to high value exports?

As relates to potential movement of alt source that is not explicitly captured in here. To extent ethanol is fueled by other than corn it is addressed by assumption of 5 bil gallions. Corn production is available for export.

26. How do our rail consumptions in terms of capacity of rail to carry traffic- we are assuming will there be capacity there to carry increases? Have gotten expert opinion on what rail capacity can do to meet needs specified in scenarios.

If you think back to Bill Wilson discussions and structure of his model and dealing with modes within model he has some fairly course specs for what specifically is going on in rail. He has a single notion estimate of rail capacity in aggregate for entire US system. That is the value referenced here. He struggled with notion of how to present rail capacity. He ultimately used rail car loadings and identified max. loadings and not actual capacity. In struggling with what assumption to make here there's uncertainty about what the appropriate value is. Given what Wilson's measured as capacity, car loadings, our best assessment is we would assume some small increases were available.

27. In Iowa alone the plants in existence and expansion will consume 143% of Iowa's corn. That suggests 5 bil is already obsolete. Miss corn growers projecting 30 bil gals of ethanol from corn in an article dated last week. You can't rely on old forecasts. It's moving so fast. It's obvious 5 bil gal is obsolete.

28. We need a NECC/ECC conference call prior to Aug and we need further discussion before set in stone.

Non-Grain Forecasts (presentation attachment 4) Anatoly Hochstein & Nikhil Bhandari

Discussion:

29. In the introduction you say ethanol is analyzed separately along with other commodities.

You need a list of commodities? Are you asking what is the list of commodities? Ethanol has been analyzed in two variations. I missed telling you that there is a principle difference in our approach and procedures if you compare to grain forecast.

30. I don't know what the other commodities are.

We addressed ethanol separately also divided coal movement between middle Miss from St Louis down stream and down upstream. That was kind of a deviation.

31. Does the division of waterway system allow you to capture movement to Great Lakes?
Movements through IL going to great lakes- yes.

32. Questions on slide 6- you have a bullet that lists an ex of ethanol. Did you handle ethanol at all? Isn't GGM doing corn and ethanol stuff? Is there a chance of double counting? What is ethanol doing there?

Ethanol is a chemical. We did a separate forecast. Manguno added GGM has as an input to it assumptions about corn based ethanol demand. It doesn't forecast ethanol. It is an input to the model that influences grain.

33. Is the volume of ethanol that they are forecasting for traffic consistent with GGM scenario?

Yes, it is consistent. When we deal with ag chemicals we used material in grain report.

34. If you go with high traffic scenario model I would assume production areas would change if non-corn.

Model is relatively straight forward. Doesn't have variables about production area. We used energy agency forecast. Our task was unconstrained. We have not touched other modes of transportation. It was not in our scope of work. This was a qualitative assessment.

35. He mentioned 143%-more corn than what is growing in the state. Have you made any consideration for that?

No.

36. And you have no info on expanding IL refinery capacity after 2020?

We are assuming it will not be expanded. In the model itself after 2020 the negative sign will show rest of US capacity (going up) negative sign dominates. IL capacity hits limit you will have less moving on water.

37. In your graph you had 8 years of data. How many observations in regression data?
8 observations. Limited data. Projecting to 2030.

38. Capacity IL, rest of US capacity, and population.

Structural shift means a shift taking place in industry more than normal. Ex: production, technology issue that changes how market is working. Capture with variable that reflects shift(for ethanol its ethanol production variable).

39. As far as your ethanol production numbers you are drawing them from EIA report.
EIA is wrong.

We had to use numbers consistent with what Corps is using in grain model.

40. Renewable fuels is another information source. There are a number of alternative sources for what is obviously a structural shift.

I think we should have a separate conference call to agree on what numbers to use.

41. Do you have confidence intervals?

They are quite wide due to limited data.

42. Working on eliminating tariffs that could expand amount of chemicals entering.

Working on aggregate numbers (except ethanol).

43. This is 1997 to 2004. Waterborne data goes back to 1970's. Why not use more data?
1997 already 10 years old. Further back there were shifts in industry. Also, two sets of statistics-data collection changed. Amount of time comes into play also. Valid observation

44. Did we use panel data industries?

No.

45. Are you aware there is a structural change in nitrogen industry driven by natural gas prices. Many believe nitrogen will be coming in through west and east coast and rail to Midwest.

Didn't look into that.

46. For ag inputs ...?

We tested overall US population for demand. 5 state population gave best fit.

47. Bill Wilson compiled acreage under those

On acreage we had a big problem. 1997-2004 acreage decreased. Forecasts are increasing now.

48. Did you try crop production totals?

I don't remember. We tried acreage, prices, a lot. We spent a lot of time on this.

49. Could you tell the group where the cut off is for north and south?

It's basically St. Louis.

50. The way you've broken this out as far as commodity groups is useful. There was an aggregation of commodity groups yesterday. It may be useful for Wilson Train report could use this dis-aggregation at commodity level.

51 Where did the estimates for GDP for US and states come from?

Our own. Nobody predicts this.

No bank would predict GDP number. Nobody wants to predict a recession.

52. How historic are your projections.

I'll have to look at report.

53. Period of 1997-2003- high housing growth period in Midwest.

Did look at construction. A lot of it goes to DOTs. Housing is important part of it.

54. Do you know what percentage- how much of non-grain was misc?

7-8%

55. Growth rate for misc is an average of commodities?

Growth rate based on non-misc growth rate. Misc growth rate itself was negative.

56. If you look as longer series of historic data?

We did not look at longer series. Issues with how data was categorized and also not enough time or resources to look at raw data. We don't have historical data before that in report.

57. I'm looking at table in corps report system Navigation Feasibility study 2004. Have table UMR traffic broken down. UMR traffic 1974-2002 numbers here don't agree with your numbers. How and why different?

I don't know about this study. I know there are different sources of data. I would have to check if the sources are the same.

58. Percentages of total system add up to 60%.
Maybe an error on chart.

59. What's the grand total tonnage realized unconstrained in future.
It's an increase of order of 2-3 % on 50 year.

60. Last 20 years little increase?
It's been increasing. Historically 2%. Has not decreased- it has increased. 2% long term good rate.

61. Did you consider population growth in construction materials?
No, only GDP rate. We tried construction and it didn't add much.

62. Are all the regression based on 8 data points?
Yes.

63. Do you have a sense of your overall high and low forecast as far as growth rates?
I would say in terms of bands (h l) basically 10-20% up and 10-20% down.

64. Seeing total forecast high and low would be of interest.
They are high and low based on methodology. Quasi scenario approach. We will use high and low in conjunction with grain. Slide 38: first distances by water and rail. Differences. Time delivery. Time for longer destination. Distance from New Orleans. Generalized and Specialized Container On Barge is travel time in days.

65. Did you look into seasonal warehousing as an advantage?
You jumped ahead 2 slides.

66. The slide previous to this- do you have an equivalent rail cost per TEU?
I indicated cost for COB (container on barge) I didn't for rail. Cost more or less the same.

67. One of other things you may list is segregation of product.
Containerization didn't work in New Orleans is that due to Katrina? We can move DDGs in container from Chicago.
It is a potential. I will address it in few minutes. Why suddenly reduced in New Orleans. I researched & didn't get direct answer. Katrina was not identified as specific factor.

68. Certain aspects that made huge changes. Opening of Panama Canal will do same for cargo ships with containerization.
We have developed best highway system in world. Europe not as superior like ours. That is one reason they do container more.

69. You said all ports in New Orleans are full. I talked to gentleman from Panama Canal and larger new ships would need 60 ft draft. May create new ports down the river in deeper drafts.

I didn't say all ports in New Orleans are full. Huston is building a huge terminal. In terms of larger vessels yes- Huston may accommodate larger vessels. Panama's vessels large range and few require 60 ft. most 50 ft. It's not factored now. Vessels don't come to gulf- choose more profitable route to east coast.

70. Could you speak to growing congestion on west coast ports?

71. There is a huge concern about congestion in Los Angeles and Long Beach ports and it's based on physical and public attitude. Public there says why should we incur these environmental problems to deliver to NY. If that happens then NW would be solution. Rail from Canada still has sufficient capacity.

Rail Capacity and Water Compelled Rates (presentation attachment 5)

Mark Burton

Discussion:

72. Could you get us the numbers of what the 4 corridors are moving?

I'll get them for you.

73. Assuming analysis you did on capacity was based on current movements? Assuming at 80%.

Yes

74. Wouldn't it be possible as you use 20% capacity rail could increase price as a monopoly?

Yes, they are doing it now.

75. If 3% growth trend continues wouldn't capacity be used in next 10 years?

Yes, if growth continues and there is not investment. The pricing is already increasing.

76. We can expect to see rail rise and around 2020 further rises in real terms. We can expect rail to be concerned dealing with expansion to 2050.

Absent significant investment, yes. As you approach design capacity you incur higher cost. I agree, if there is not substantial investment. Over the past 20 years there has been investment. Historically, the railroads have been willing to make the investment.

Question is will they continue and will they have the ability?

77. In the last 10 years rail has invested in equipment for more tonnage and capacity through same line. There may be other investment not necessarily track expansion.

If private sector will invest they want increasing returns. If public sector invests for passenger rail the issue is.... CSX and BNSF have both announced programs where public sector invest in passenger rail.

State of Virginia 40 mil. 90 mil appropriated last surface transportation bill. Rail willing to take public money as long as they don't have to seed operational control.

78. Please hold questions so we can get through the rest of the presentation.

It's inadequate to have a workshop and not allow time for questions at the appropriate time.

79. Need to send all presentations and applicable studies out with the minutes from this meeting.

80. You said the main haul railroads price to keep traffic off our waterway. That seems to contradict the conclusion in the study that water compelled rates reduced.

Not because of competition. It's a means of reducing cost.

81. In essence the developed in unit trans capacity was expanded in railroads.

I would argue 15 years. Transit has been along longer than that.

We had excess capacity on upper Midwest but they have all the traffic they want.

82. Problem understanding why they wouldn't want more traffic. I searched for when Pat Rose said that. How long would a CEO stay in place in a major corporation if he said I don't want to grow. He said they are pricing to grow.

That is the argument. But in same thing Matt Rose said we have been forced to under price for a generation. We no longer face that competition.

83. Mark, in your statement that rail roads don't look desirably on new traffic- is there a distinction between unit train and small multi-car?

I would have thought yes. But last year we had a group trying to ship 2 mil tons a year for 5 yr called CSX. Took marketing people 8 weeks to return call.

84. Use has doubled in last two years. Do we have an estimate of how much investment has increased over same period.

Last year north south 150 mil dollars. 4 big class and 2 smaller class and invest same across 1.5 bil a year. Constant across last decade. Numbers available.

85. Do you know Nav industry's investment?

They are not investing. Barges down. Rail half on track half on equip.

86. Barge industry has been cutting barges to get rates up.

87. Back on capacity study report you never defined how you were accessing capacity. Listed parameters. Seemed you would have to have definition.

I will tell you exactly how we did it. We sat down and looked at piece of rail network. Hard to figure out how much traffic is on. Dave assigned traffic and we sat down and

said there is 30 mil gross tons a year on that seg rail. What does that trans into daily. Is it single how many sidings, how long, 5000 ft. some 10000 ft. how does that match up to traffic. About right. Not a lot of excess capacity. Did for everyone of those links. They were qualitative in nature not quantitative. Looked at each railroad piece by piece.

88. Did you talk to railroads?

I talked to one person who does bridges and structures at Northern. Dave talked to someone at NS. There not open about giving own capacity.

Used to be able to go to rail and get tonnages but not available now. Track charts used to give tonnages. But now can't for homeland security.

89. This analysis really can't go into modeling effort. Is it possible with these that you could suggest some wild scenario- what would have to happen to change results?

I think where I'm concerned is whether or not the railroads will see it in their best interest to make investment. If the investments take place. When when will rail be an issue: when they stop making investment.

90. If you look at last 20 year they have invested.

91. The problem is they had an outdated system.

They took what they didn't need and made what they did need a lot better. They built a railroad that could handle twice as much as 20 years ago.

Closing Remarks:

Facilitator: Dr. Burton will be available after this meeting for questions.

We appreciate there is a lot more questions and comments you have. Hope process of getting the reports out and taking comments will satisfy that.

Spitzack: I will be setting up a meeting with NECC/ECC for continued discussion. Will put something out as to how we will capture comments in the future.

Added Comment:

Comment below was not part of general discussion. Below are additional notes on ethanol from National Corn growers added after the meeting:

- We expect 15 billion gallons of ethanol from a total of 15 billion bushels of corn produced by 2015. (only 5 billion bushels of actual shelled corn will be used for ethanol- because of cellulosic ethanol we could be using corn stalks etc.)