Joint Policy Advisory Committee

MOUNTAINLAND ASSOCIATION OF GOVERNMENTS
UTAH DEPARTMENT OF TRANSPORTATION
DIXIE METROPOLITAN PLANNING ORGANIZATION

WASATCH FRONT REGIONAL COUNCIL
UTAH TRANSIT AUTHORITY
CACHE METROPOLITAN PLANNING ORGANIZATION

Joint Policy Advisory Committee

3600 South 700 West
Salt Lake City, Utah 84119

Thursday, September 3, 2009
12:00 (noon)

MINUTES

Members Attending:

Councilwoman Suzanne Allen	Dixie MPO
Mayor Lewis Billings	Provo City (MAG)
Mayor Burtis Bills	Trustee, Utah transit Authority Board
Chuck Chappell	Wasatch Front Regional Council (WFRC)
Orrin T. Colby, Jr.	UTA Board
Darrell Cook	MAG
Mayor J. Lynn Crane	Herriman (WFRC)
Mayor Dennis A. Dunn	Elk Ridge City
Commissioner Larry Ellertson	Utah County/MAG
Lowell Elmer	Dixie MPO
Mayor Jay Franson	Highland (MAG)
Jeff Gilbert	Cache MPO
Commissioner Jeffrey D. Holt	Utah Transportation Commission
John Inglish	Utah Transit Authority
Brett Millburn	Davis County/WFRC
Russ Wall	Taylorsville/WFRC

Others Attending:

Paul Bay	UTA
Todd Bentler	CVTD/CMPO
Carlos Braceras	UDOT
Muhammad Farhan	WFRC staff
Sharon Gray	WFRC staff
Ned Hacker	WFRC staff
Doug Hattery	WFRC staff
Ahmad Jaber	UDOT
Andrew Jackson	MAG
Justin Jones	UTA
Sam Klemm	WFRC staff

Others Attending (continued):

Andy Li	WFRC staff
Jon Osier	Rio Tinto/Kennecott Land
Diane R. Nielson	State of Utah

The meeting began at 12:20 p.m. with Mr. Chuck Chappell conducting.

Commissioner Jan Zogmaister, Mr. John Njord, and Mayor Darrell Smith were excused from the meeting.

Mr. Chappell welcomed Mr. Orrin T. Colby back as a member of JPAC representing the UTA Board.

Minutes

Mr. Lowell Elmer moved to approve the minutes of the August 6, 2009 meeting. The motion was seconded by Commissioner Holt and passed unanimously.

Energy Supply and Green House Gases

Mr. Chappell introduced Ms. Dianne Nielson from the State of Utah who was in attendance to make a presentation to JPAC.

Ms. Nielson discussed a PowerPoint presentation titled ***UTAH ENERGY Transportation.*** She noted that it takes several agencies working together to achieve the goals that make sense for Utah. She discussed the following PowerPoint slides:

Utah Energy Goals

- *Affordable Energy*
- *Sustainable Economy*
- *Strengthen Energy Security and Independence*
- *Reduce Emissions*

Ms. Nielson noted the importance of weighing in to find the middle ground in terms of what is workable to allow work to move forward. She noted that Congressional action regarding climate change and green house gas emissions is preferred to leaving these issues up to EPA regulations.

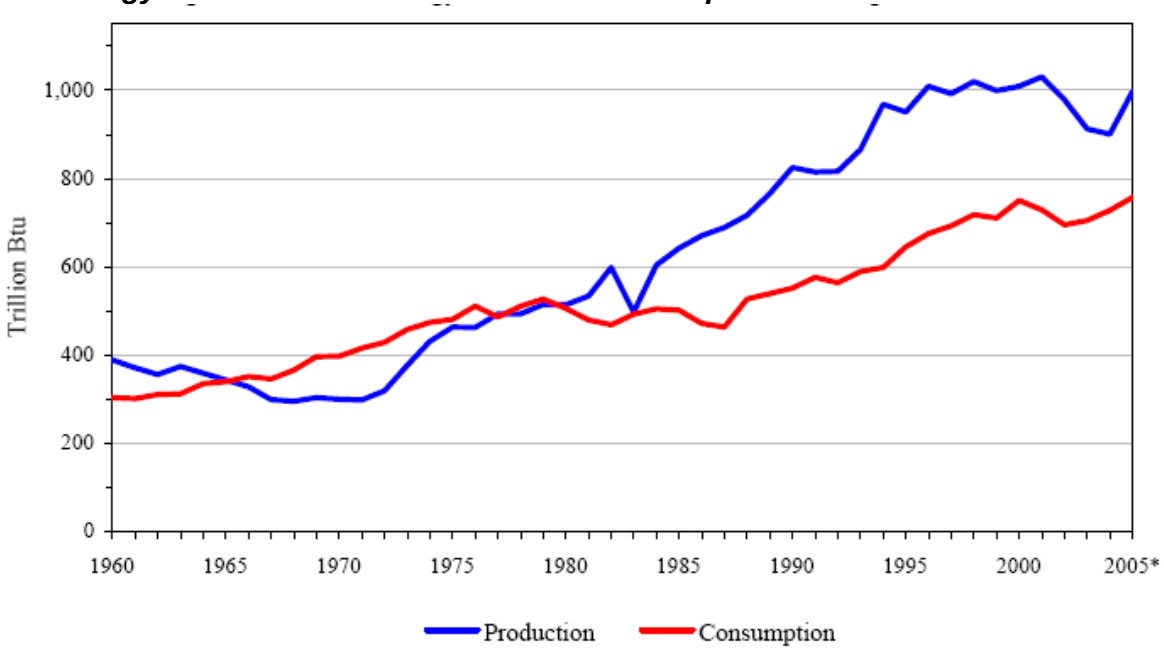
Utah Energy Strategy

- *Diversify Energy Portfolio of Renewables and Non-Renewables*
- *Promote Economic Development*
- *Improve Energy Efficiency and Conservation*
- *Improve Environmental Quality and Reduce Emissions*
- *Develop Transmission and Transportation*
- *Maintain Quality of Life*

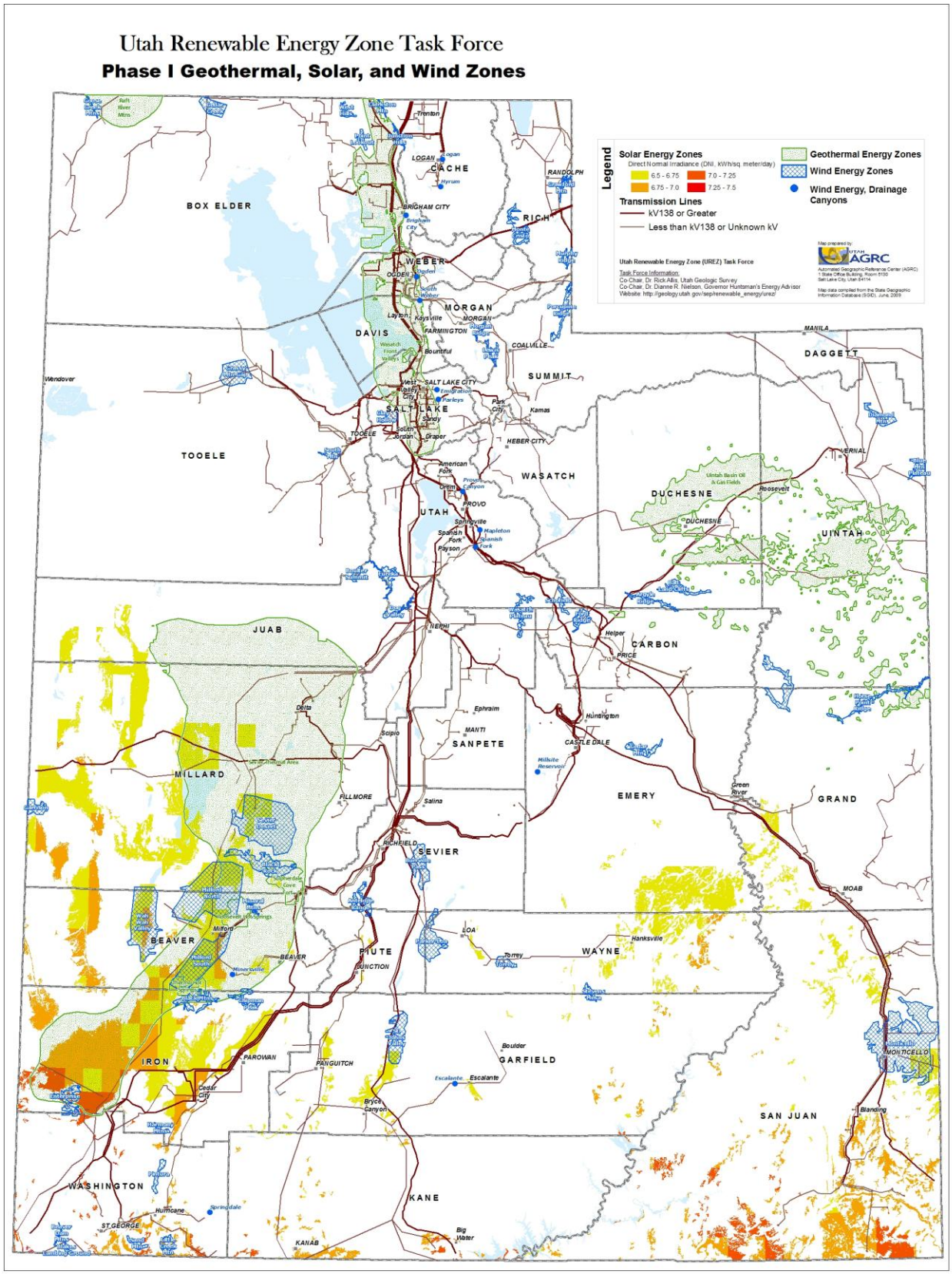
Utah Energy Targets

- *Improve Energy Efficiency by 20% by 2015*
- *Generate 20% of Electricity from Renewable Energy Sources by 2025*
- *Reduce Greenhouse Gas Emissions to 2005 Level by 2020*

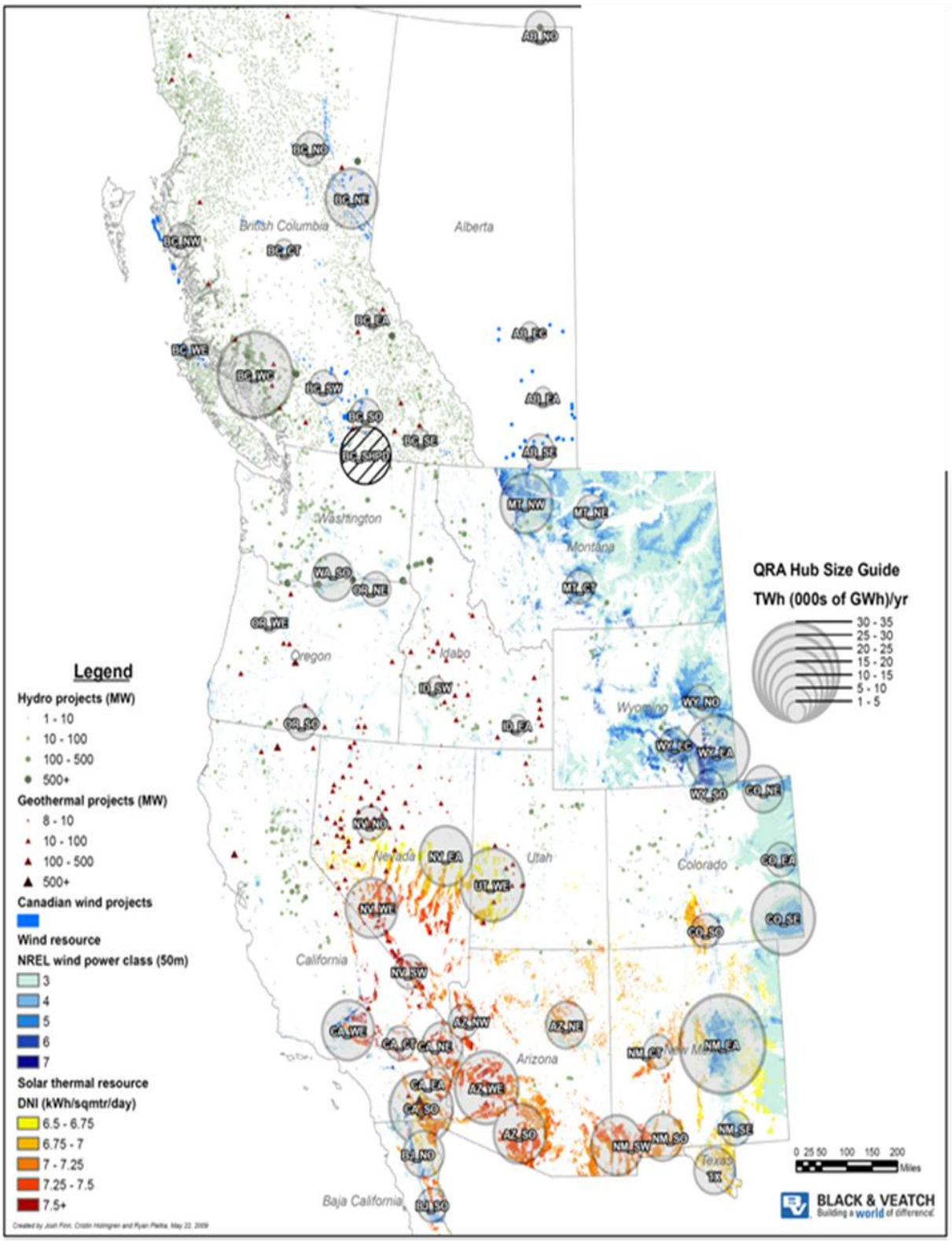
Utah Energy Production: Production and Consumption



Ms. Nielson noted that Utah is currently a net exporter of energy with more production than consumption. She explained the following map which shows new energy sources for Utah including solar, wind, and geothermal. (See map on next page.)


Utah Renewable Energy Zone Task Force
Phase I Geothermal, Solar, and Wind Zones
Legend
Solar Energy Zones
Direct Normal Irradiance (DNI, kWh/sq. meter/day)
6.5 - 6.75
6.75 - 7.0
7.0 - 7.25
7.25 - 7.5
Transmission Lines
kV138 or Greater
Less than kV138 or Unknown kV
Geothermal Energy Zones
Wind Energy Zones
Wind Energy, Drainage Canyons
Utah Renewable Energy Zone (UREZ) Task Force
Task Force Information:
Co-Chair, Dr. Rick Allis, Utah Geologic Survey
Co-Chair, Dr. Dianne R. Nielson, Governor Huntsman's Energy Advisor
Website: http://geology.utah.gov/sep/renewable_energy/urez/
Automated Geographic Reference Center (AGRC)
1 State Office Building, Room 5130
Salt Lake City, Utah 84114
Map data compiled from the State Geographic Information Database (SGID), June, 2009
BOX ELDER
CACHE
RICH
WEBER
MORGAN
DAVIS
SALT LAKE
SUMMIT
TOOELE
WASATCH
UTAH
DUCHESNE
UINTAH
DAGGETT
JUAB
CARBON
SANPETE
EMERY
GRAND
MILLARD
SEVIER
BEAVER
PIUTE
WAYNE
GARFIELD
SAN JUAN
IRON
WASHINGTON
KANE

Ms. Nielsen encouraged JPAC members to review the maps on the website. She noted that the following map identifies zones or hubs of renewable resources. The maps show areas where there are opportunities. She stated that the model can help to decide what should be built, the cost effectiveness, and how the needs of the consumer can be met.



Energy Project Challenges

- *Timely permitting for exploration and development*
- *Planning and approval of Transmission and Transportation Routes*
- *Local Impacts*
- *Impact of energy price fluctuations*
- *Project Funding*
- *Use v. Export of Energy*
  Distributed Generation

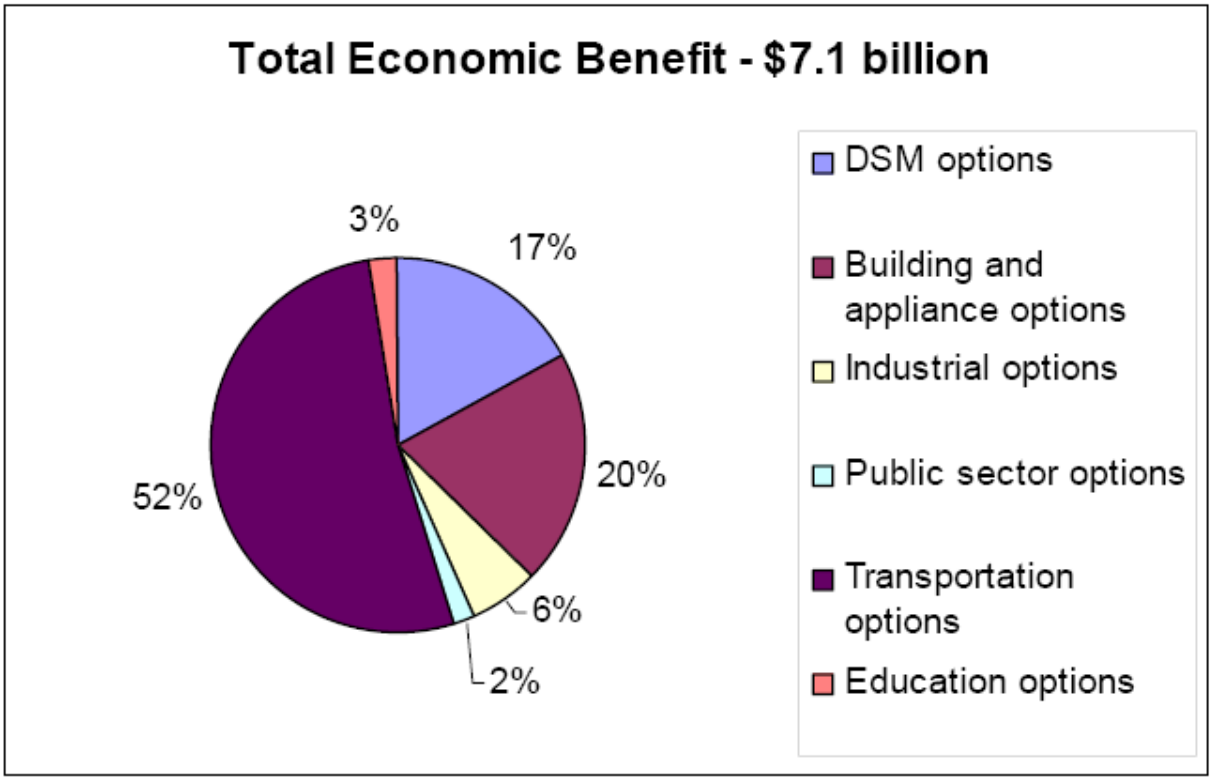
State of Utah Governor's Blue Ribbon Advisory Council on Climate Change

More than 70 Recommendations covering:

- *Agriculture and Forestry*
- *Energy Supply*
- *Residential, Commercial, Industrial*
- *Transportation and Land Use*
- *Crosscutting*

Ms. Nielson encouraged JPAC members to visit the State's website at *www.deq.utah.gov/Issues/Climate Change/index.htm* to review information from the Governor's Blue Ribbon Advisory Council on Climate Change.

Net Economic Benefit of Energy Efficiency Options



Ms. Nielson reviewed the economic benefits to the state from the various agencies using energy efficiency options. She stated that the framework and toolkit are available to utilize to make decisions.

CNG AND NGV LEGISLATION AND POLICY

Ms. Nielson reviewed the legislation and policies made over the past few years.

2009: *I-15 CNG Corridor Initiative, HB392 Natural Gas for Vehicles, CR1 Certification of CNG Vehicles*
2008: *HB103 Use of State Alternative Fuel Network, HB106 Clean Air and Efficient Vehicle Tax Incentives*
2007: *HB110 State Fleet Energy Efficiency Requirements*
2006: *HB46 Energy Policy Amendments*
1980s: *Established I-15 CNG Fueling Infrastructure*

Energy Goals - CNG/NGV

AFFORDABLE ENERGY
- *Per gallon equivalent price for CNG, Gasoline & Diesel*
- *Operation and maintenance of dedicated and aftermarket conversion NGVs*
- *State tax credits for NGVs*

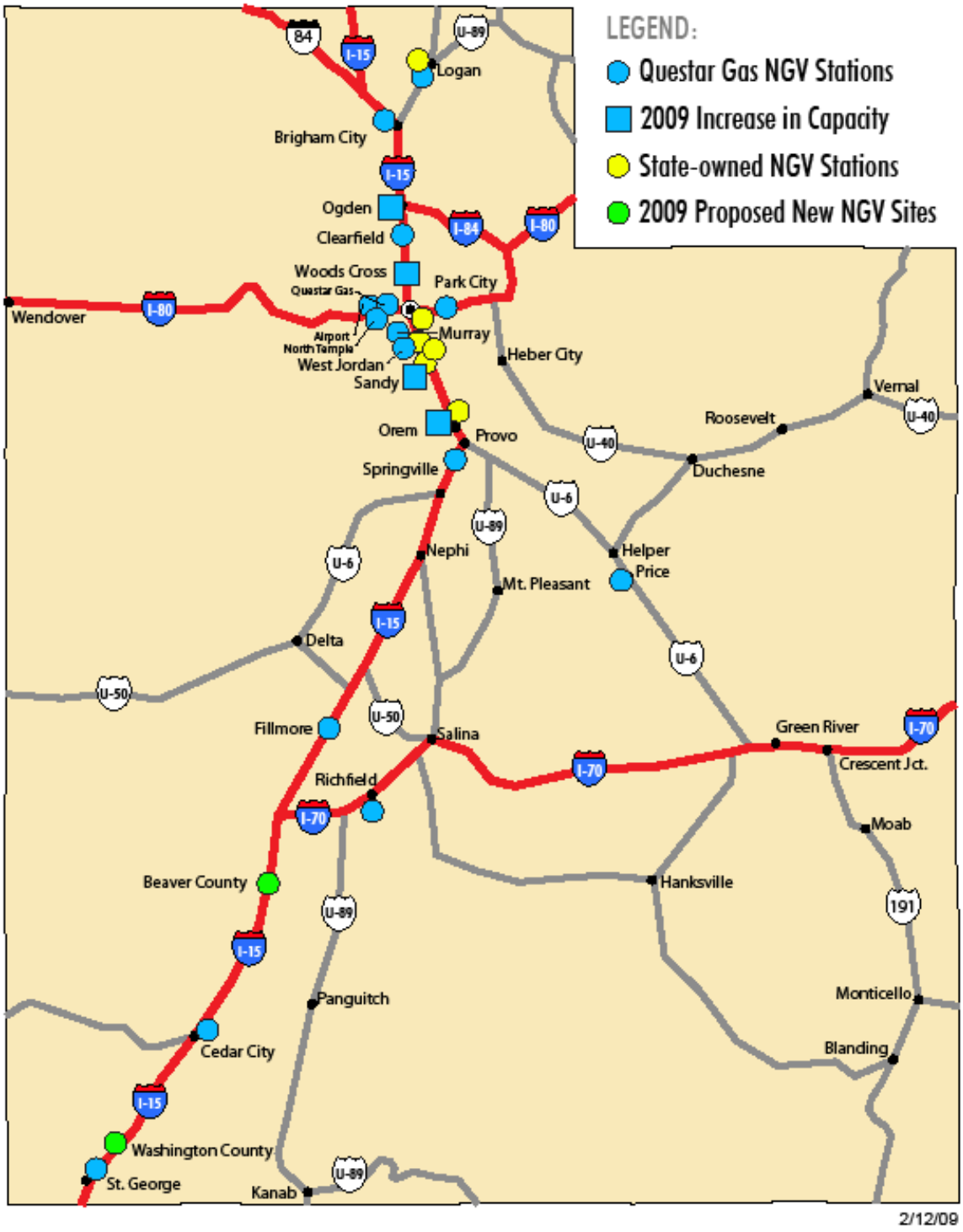
SUSTAINABLE ECONOMY
- *Robust Fueling Infrastructure*
- *Workable Regulatory Program for Aftermarket Conversion NGVs*
- *Support Key Transportation Routes (I-15 Corridor)*

STRENGTHEN ENERGY SECURITY AND INDEPENDENCE
- *Natural Gas production in Utah and adjacent states; nationally, 87% is domestic production*
- *Direct displacement of imported petroleum for transportation fuels*
- *Alternative fuel during emergency operations*

REDUCE EMISSIONS
- *Reduce criteria air pollutants (Attainment and Non-Attainment Areas) 60-90% fewer emissions*
- *Reduce Greenhouse Gas Emissions, 30-40% fewer emissions*

Ms. Nielson explained that additional information on Utah's I-15 NGV Corridor can be found at: **www.deq.utah.gov or www.energy.utah.gov.**

Utah's I-15 NGV Corridor



Ms. Nielson stated that most of the focus on energy in the state has been on the electricity industry. She noted that the second most critical component is the transportation sector and stated that funding solutions must be found that work on a regional and national level.

JPAC members discussed natural gas and hybrid electric vehicles. Ms. Nielson stated that each agency needs to decide what makes sense for them in terms of fuel sources and diversification. She stated that rather than mandating fuel sources, the state is allowing choices of what works best for each agency in Utah.

Ms. Nielson stated that if additional information or help is needed, to please contact her on her cell phone at 801-580-0471.

Transportation Demand Models

Mr. Chappell introduced Mr. Andy Li from the Wasatch Front Regional Council staff who was in attendance to make a presentation to JPAC members on transportation demand models.

Mr. Li discussed a PowerPoint presentation titled ***"What is a Travel Demand Model?".*** He discussed the following PowerPoint slides:

Goals

- What is a Model?
- Is the Model Important?
- How is the Model Used?
- How did we Develop the Models?
- Other Thoughts on Modeling

Mr. Hattery noted that issues are more complex today. He stated we are dealing with more issues than in the past including greenhouse gasses, and future volume and speed estimates. The models are especially important for transit projects. Forecasts must show enough ridership to justify the expense of a project for federal funding.

JPAC members discussed funding for an updated home interview study that needs to be done. These studies provide the data needed to develop the travel models. Mr. Cook noted that the last home interview survey completed is 17 years old.

Mr. Li continued to explain the elements and uses of the model:

Travel Demand Model

- A series of mathematical models that forecast future travel demand from current conditions and future projections of households and employment.
- Basically - - - where people are coming from and going to and how they are getting there!

Basic Elements of a Model

- A Travel Demand Model
    - The 'Model system'; the various equations and data which reflect travel behavior.
    - The 'software system'; the platform to implement these equations.

Why are they important?

- Models are important because (some) transportation plans & investments are based on the projections models make about future travel.
- These model projections HELP to determine how transportation funds are allocated.

Uses of Travel Demand Models

- Regional Transportation Plan Updates
- Air Quality Impact
- Comprehensive Plans
- Congestion Management Systems
- Corridor Studies
- Project Environment Impact
- Studies
- Toll Feasibility Studies

How are they Built?

- Different Types of Travel Demand Models
  - Traditional Four Step Models
  - Activity Based Models
- Data Generally Used
  - Housing Data
  - Employment Data
  - Traffic Counts
  - Speed Study Data
  - Roadway Data
  - Transit Inventory
  - Travel Behavior Data

Four Step Model

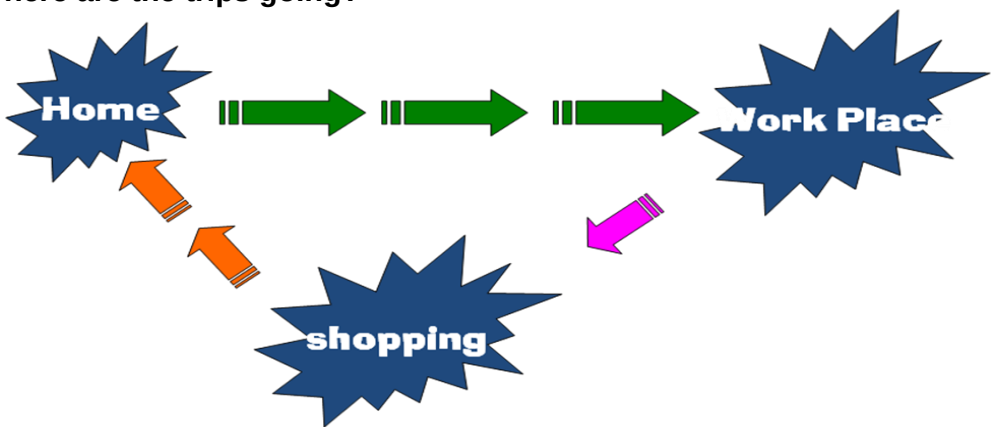
- Most widely used is the Four Step Model
  - Trip Generation
  - Trip Distribution
  - Model Choice
  - Traffic Assignment

Trip Generation

- How many trips are there in the area?
  - Home Based Work Trips: 13%
  - Home based College Trips 2%
  - Home Based Other Trips 53%
  - Non Home Based Trips: 32%

Trip Distribution

- **Where are the trips going?**



  - Identifies destination by trip purpose
  - Distance
  - Travel time
  - Land Use

Mode Choice

- How do you travel?
  - Walk/Bike
  - Transit
  - Auto

Traffic Assignment

- What path do you use to get there?
  - Highway
  - Transit
  - Minimum Path
  - Probability
  - Congestion

Model Understanding

- Travel Models: A Tool to Predict the Unpredictable

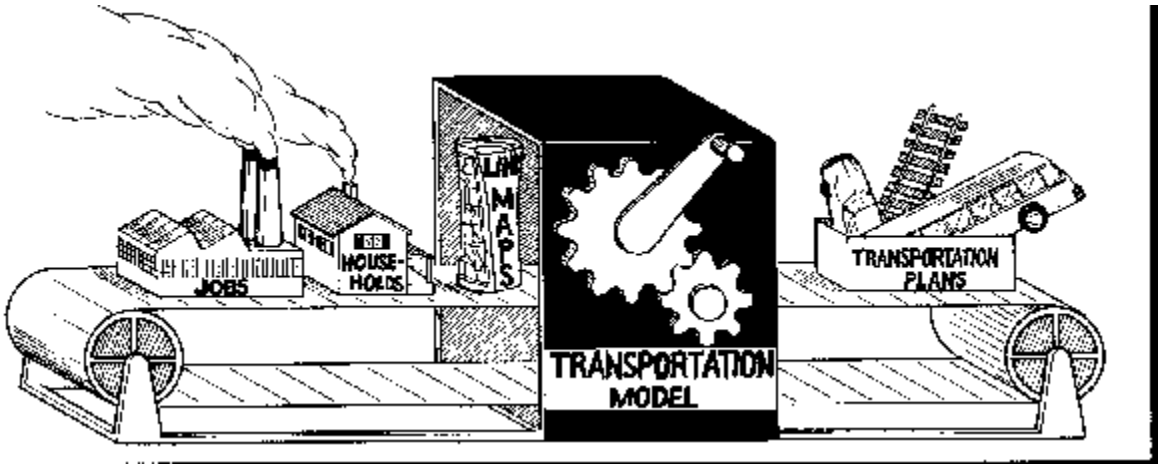
Is It a Perfect Tool?

NO! but it is THE BEST DECISION MAKING TOOL CURRENTLY AVAILABLE FOR REGIONAL TRAVEL DEMAND FORECASTING.

Why is it not Perfect?

- Merely a statistical replication of human behavior that assumes . . .
  - Demographic forecasts are reasonable
  - Existing conditions are accurately reflected
  - External factors are known and under our control

Can't Just Push a Button and Get an Answer



We have to thoroughly understand the details, what went in and what came out. (Crank through the details.)

Modeling in WFRC/MAG: Where are we?

- Users are comfortable with our model.
- Model was peer reviewed.
- Federal agencies reviewed the model.
- The household and employment allocation tool is advanced.

Modeling in WFRC/MAG: Where are we going?

- Produce reliable results
- Provide user friendly interface

What can I leave you with . . .

- An appreciation and understanding of the complexity of the models
- An understanding that models have different capabilities
- Learning complex models takes time and practice
- Questions of today are more complex than the questions of the past!

Mr. Hattery stated that some sensitivity can be included in the model. Mr. Chappell added that data put in the model can anticipate change and how people choose to live in the region.

Other Business

Mr. Inglish briefly reported on the national High-Speed Rail Corridor designations. He felt that UTA needs to get in the game, and stated they are joining a Western High-Speed Rail Alliance that is being developed. He noted that each agency joining the Western High-Speed Rail Alliance will contribute $60,000 each year to fund the effort to get lines on a map with the hope of being part of a future national network. He noted this would be a one to two year effort.

Commissioner Jeffrey D. Holt expressed his disagreement for implementing a western High-Speed Rail Alliance. He felt that there was not enough density in our area to spend over $100 million a mile for a high speed rail system. He noted that in 40-50 or even 100 years there might

be the population to use the system, but felt it would be a waste of money and time to build this system now.

Next Meeting: Mr. Chappell noted that the October 1, 2009 JPAC meeting will be cancelled. The next JPAC meeting will be held on November 5, 2009.

Possible future topics:

- General Freight – Railroad Corridor
- Legislative Transportation Interim Committee
- Energy (Dianne Nielson September 3)
- ARRA (Stimulus) Projects and Reporting
- Unified Transportation Plan

Mr. Chappell asked JPAC members to contact him if they had any ideas on future topics. He also encouraged JPAC members to think about who they would to appoint as Chairman of the committee for next year.

The meeting adjourned at 1:42 p.m.