

THEATER PROFILE: Extractives and Energy

Introduction: This is a profile prepared by an expert advance team on the Energy and Extractives theater of economic base job creation. The advance team was comprised of industry association representatives, local economic development professionals and other energy and extractives experts. They reached the following conclusions through a consensus process administrated by the Jobs Council contract team.

1.Theater Definition

How is the Energy and Extractives program theater ~~of economic base job creation~~ defined?

The Extractives and Energy Theater is focused on creating economic base jobs in two primary areas of the economy: the extraction and processing of raw materials from the land for export and the production and transmission of energy for export outside the state. Energy and extractives in the state of New Mexico includes but is not limited to:

1. Extraction and processing of raw materials
 - a. Mining; potash, coal, copper, silver, gold, garnet, molybdenum, aggregate, silica, humate, perlite, gypsum, limestone, pumice, salt
 - b. Oil and gas production; oil, gas, shale;
 - i. Drilling
 - ii. Distribution; pipelines, trans-loading
 - iii. Refining
2. Energy Production
 - a. Power generation
 - i. Large plants coal, natural gas, nuclear, hydro
 - ii. Small and Micro scale generation
 - iii. Renewable Energy; Wind and solar farms, Geothermal (for export), biomass, energy storage

- b. Transmission and distribution systems
- c. Grid development and management
- d. Biomass (sourced from agriculture activity): forest waste, fiber for energy

What is the potential for planning and program overlap with other theaters?

- Industry recruiting, petrochemical production > Employer RR&E: Separate, concerted program efforts within a community could be developed to focus on growing a particular extractive sector or area of energy production. However, in most New Mexico communities, when there is an organized program effort to grow a component of extractives or energy economic base, it is normally handled by local EDOs which are focused on the Employer RR&E theater. In such a case, the energy and extractives theater would become an industry target for the community's employer theater operations.
- Biomass production could appear under several other theaters, i.e. forest biomass, algae for diesel, grass for energy production, etc. In these areas, the activity could be placed under Agriculture, Federal Government or Employer RR&E depending on what organization manages the effort.
- Oil field workers that are residents of other states but work in New Mexico are considered long term business visitors and would fall into the Visitor Theater.
- Forestry > Federal Government Theater (USDA, forestry products)
- Exported Services > Federal Government Theater (higher education), Employer RR&E theater, Solo work Theater,

Synonyms:

Definition of a Transaction

How is an economic base job creation transaction defined for this theater?

An economic base job transaction occurs when contracts are executed that result in new employment directly related to the extraction of raw material from the ground or by employers that generate energy for export out of state. To qualify as an economic base job, average wages must be above the federal poverty guidelines and employees must be full time, tax paying New Mexico residents. In the case of seasonal work, the wage rates would be normalized to a monthly or hourly rate.



Program Approaches - Sub Theaters

What are the different ways that programs in this theater procure or preserve economic base jobs?

- Expand existing generators and processors;
 - o Attract workers that commute from out of state to move permanently
 - o Relocate unemployed workers to job sites
 - o Increase demand and out of state sales;
 - o Increase production,
 - o Improve quality
 - o lower costs,
- Expand value added services enterprises
- Recruit new extractors and processors
- Recruit new value added service enterprises; employers & solopreneurs

Key Metrics

What metrics should be used to measure the production and return on investment of the procuring programs in the this theater?

- Workers that currently commute to work from Texas to New Mexico that are relocated as permanent NM residents are counted as a new economic base job. Otherwise, they are considered long term business visitors.
- *No ROI metrics have yet been determined for this theater*

Attributes and Insights

What important attributes, distinctions and insights are important to understanding the nature and capacity of this theater?

Advantages

- There is a surplus of approximately 10,000 jobs available in New Mexico even as energy prices are causing contraction in other job markets. New Mexico's producers have become much more productive, allowing them to continue to grow the industry in the

- face of falling prices. Many of these economic base jobs could be created if guest workers from Texas and other states were able to find affordable housing and become permanent New Mexico residents.
- The raw materials are plentiful and could support consistent expansion for ten years or longer.
 - Jobs in this theater require a wide range of qualifications ~~span a wide range of qualification required~~

Disadvantages

- This theater is constrained by regulatory, infrastructure, natural resource (water) and workforce issues.

2. Players/Procuring Agents

What organizations and institutions are formally missioned, funded and staffed to create economic base jobs in this theater?

Some portion of the new 21,089 economic base jobs in this theater (see #4 Jobs/Goals) estimated possible over the next ten years will need to be procured by state and local program efforts. This implies that properly missioned, funded and professionally run program efforts will be required to manage the research, marketing, site selection, deal structuring, completion services and other capacity building activities.

These procuring efforts are traditionally funded and managed through a combination of public, private and public/private organizations at the state, regional and local levels. Some of the economic base activity in this theater could be procured by a proactive effort in the community such as the recruiting of a uranium enrichment facility or the permitting of a mine. Other economic events such as a surge in oil and gas production might happen unassisted. Given the role the state plays in the creation of new jobs in this theater by permitting the exploitation of the taxpayers' mineral rights, one could assert that the state is playing a direct procuring role in the creation of these jobs. For this reason, traditional economic development incentives such as tax abatements are rarely justified. Procuring agents could include:

- Major producers
- New Mexico Economic Development Partnership
- Local governments
- Local economic development
- Local businesses

Constituents/Factor of Production Allies

Which organizations and institutions play a supporting role and are considered constituents for creating jobs in this theater?

- Elected officials: Governor, mayors, legislators, city councilors
- State and local government regulatory and compliance professionals
- Producer trade associations;
- Banks, bond counsel, and accounting firms
- Universities and community colleges
- Suppliers, vendors, and consultants

3. Economic Sectors

~~***Which economic base sectors are the primary focus of this theater?***~~

Which are the primary economic base sectors in this theater?

- Extraction of naturally occurring mineral solids (i.e. metals, coal and other industrial minerals), liquid minerals (i.e. crude petroleum) and gases
- The utilities sector consists of establishments engaged in the provision of the following utility services: electric power, natural gas
- Activities associated with the utility services provided vary by utility: electric power includes generation, transmission, and distribution; natural gas includes distribution

4. Jobs/Goals

How many new (gross) economic base jobs are estimated to be created in each sector of the theater by 2024?

The following jobs figures represent the current aggregate of estimates made by each county and region of the state for the period beginning 2014 and ending in 2025.

Energy and Extractives Total: 21,089

It would be helpful if the advance team could validate the estimates made per region and further refine by sub theater.

5. Program Reliant

How many of the jobs in these sectors are to be directly caused or procured by the organizations specifically missioned, funded and staffed to generate economic base transactions in this theater?

Economic development professionals from the Southeastern district estimated that 85% of the total or 17,926 economic base jobs will require critical assistance from EDOs to be procured over the next ten years. 15% are then presumed to be created organically without program assistance. Number of transactions was not estimated. In this case, unless there is a separate effort apart from EDOs (i.e. oil and gas industry and the dept of minerals, energy and natural resources) to conduct a specific program to count job creation, this theater's activities would be considered an industry sector under the Employer RR&E Theater.

These are transactions and jobs that would *not* happen "but for" the specific program effort. Any balance of jobs and transactions would be expected to happen organically, without program assistance.

FACTORS OF PRODUCTION

What factor of production gaps must be cured if the economic base jobs in this theater are to be created?

6. Marketing and Sales

Is the marketing, sales and completion apparatus in place and at scale to generate the necessary interest, manage the pipeline of prospects, and complete transactions?

What is the current marketing and sales gap and how will it need to scale over the next decade to meet the ten year transaction goals for this theater?

The marketing and sales apparatus for this theater is currently conducted by local EDOs whose activity focuses on the Employer RR&E Theater. See the Employer RR&E Theater Profile for a detailed description.

Gaps:

- There is a lack of clarity regarding the procurement and measurement of economic base jobs in this theater. Local economic development respondents believe that more program support from NMEDD, NM Partnership, and the Department of Energy, Minerals and Natural Resources could increase productivity. Neither state economic development nor the department of Minerals, Energy and Natural Resources have taken the lead on a

recruitment program but each have a vital role in the site selection and industry recruiting process.

Solutions:

- Allocate more funding to local economic development to focus on the energy and extractives sector specifically
- Hire additional recruiters with expertise in extractives and energy

7. Real Estate, Infrastructure and Capital

Does the region have the land, buildings, infrastructure, utility capacity and capital resources to fulfill the transactions envisioned for the theater over the next ten years?

Gaps:

- San Juan County needs more intermodal transportation, such as railways and pipelines. Otherwise, production will be limited to what currently exists in that region.

Solutions:

- Subsidize intermodal transportation access in the NW region.

8. Workforce, Housing and Community Quality

Does the region have the qualified workforce, workforce housing and community quality necessary to grow, attract and retain the workers needed over the next ten years?

Gaps:

- Stakeholders in the Southeastern region cited the lack of workforce housing as the primary obstacle to economic base job creation. In Eddy County alone, it is estimated that 9,000 economic base jobs are going to guest workers Texas instead of New Mexicans for multiple reasons: 1) lack of workforce housing – Out of state workers would become permanent residents if there were housing for them and their families, 2) the state lacks a more aggressive placement program that could fill jobs available in the region with unemployed workers from the balance of the state, 3) the cliff effects of existing state and federal income support programs for the unemployed and high levels of substance abuse among the workforce aged population are estimated to be serious impediments to maximizing local economic base job creation opportunities.

- In the Northwest region, despite a contracting economy, there are more than 1,500 good jobs available that are chronically unfilled by the existing workforce.

Solutions:

- The Department of Workforce Solutions should explore ways to place qualified, unemployed New Mexicans from regions lacking jobs to the jobs available in the Southeast or Northwest regions.
- While it is generally acknowledged that lack of workforce housing constrains economic base job creation in the region, not enough is known concerning why the market has not responded. Before prescriptive solutions can be written for state and local action, much more analysis and planning must be done at the local level.

9. Leadership, Organization and Business Climate

Does the region have the leadership, organizational assets, planning and the business climate needed to compete for the theater's targets?

Gaps:

- New Mexico has a less attractive political environment for the oil and gas industry than our competitor states, such as Texas. Counties and communities across the state lack comprehensive strategies for growing their respective economic bases over time.
- New Mexico is at ranks in the bottom 5 states in the nation as a for Energy and Extractives regulatory environment for Energy and Extractives. For example, there is a 270 day wait for a processing permit in the NE region.
- Most also lack actionable, measureable plans for the theaters they are focused on.
- Public and private leaders have been unable to devote enough time, energy and priority to long range planning.
- Employment numbers are inaccessible, which inhibits effective accounting.
- Federal government restrictions on the export of oil and gas to foreign markets severely restricts the long term job creation potential of the theater

Solutions:

- A bipartisan agreement at the state level on creating a more positive business and regulatory climate for the oil and gas industry.
- The state should support federal efforts to lift export restrictions on oil and gas.
- Examine and streamline the permitting process to make it less prohibitive.



- The state should establish a long range assessment, planning and accountability system.

Council Action Taken/Recommended:

None proposed, none taken