

Community Energy Systems

Local Production – Local Consumption

NRES

2013 Nebraska Wind Conference

Define 'Community'

- Local consumption of a local resource with local infrastructure enjoying primarily local ownership
- Local meaning up to 100 miles, depending on model
- Process facility enjoys the support of the locality in which it is based and makes energy products available to the public.

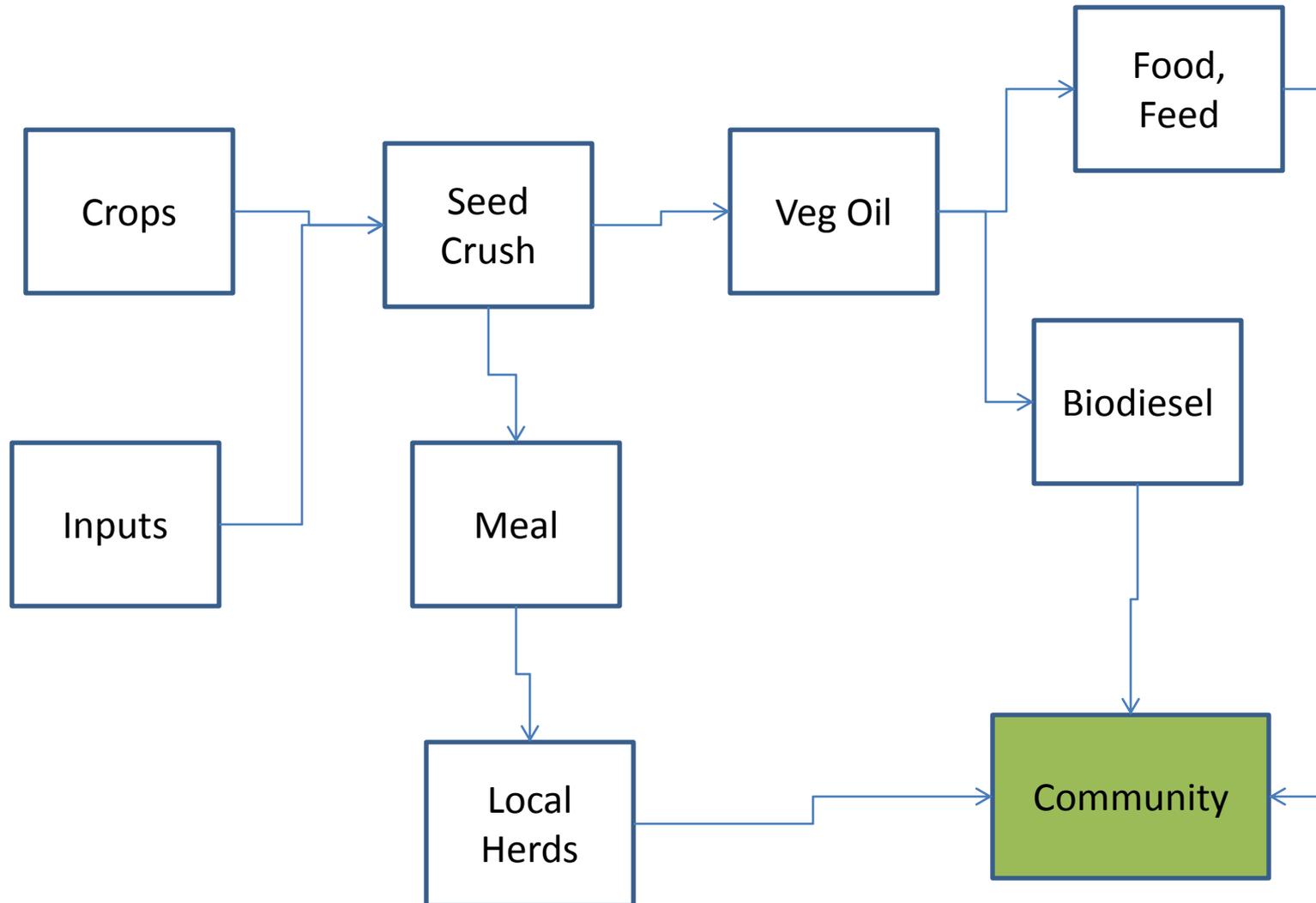
Why?

- Community and individual projects provide higher jobs/watt or gallon
- Wealth is retained in the community
- Decentralized production increases resilience
- Spur infrastructural investment and reclaim abandoned facilities
- Leverage incentives locally
- Investment in local energy production and value added opportunities

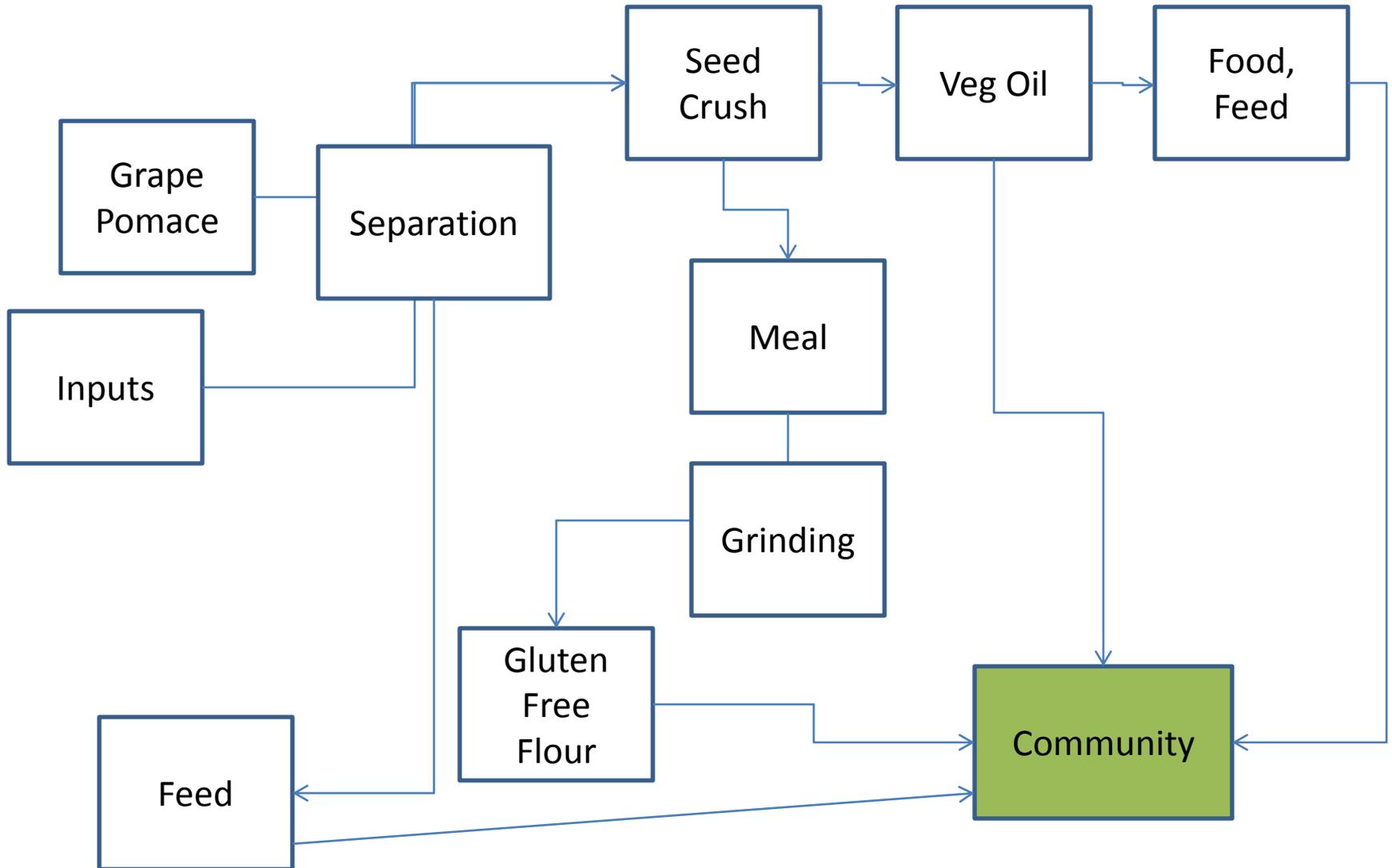
More 'Community' Criteria

- Not individual use or net metering. Though could be if net metering could be expanded. See LR 326 as most recent attempt to do this
- Size limited, 1MW, 1MM gpy, etc. (can vary) key indicator is local consumption of the energy produced by the facility.
- Primarily local ownership, (see attempts made in this area with CBED legislation)

Examples: Soy Biofuels 2005



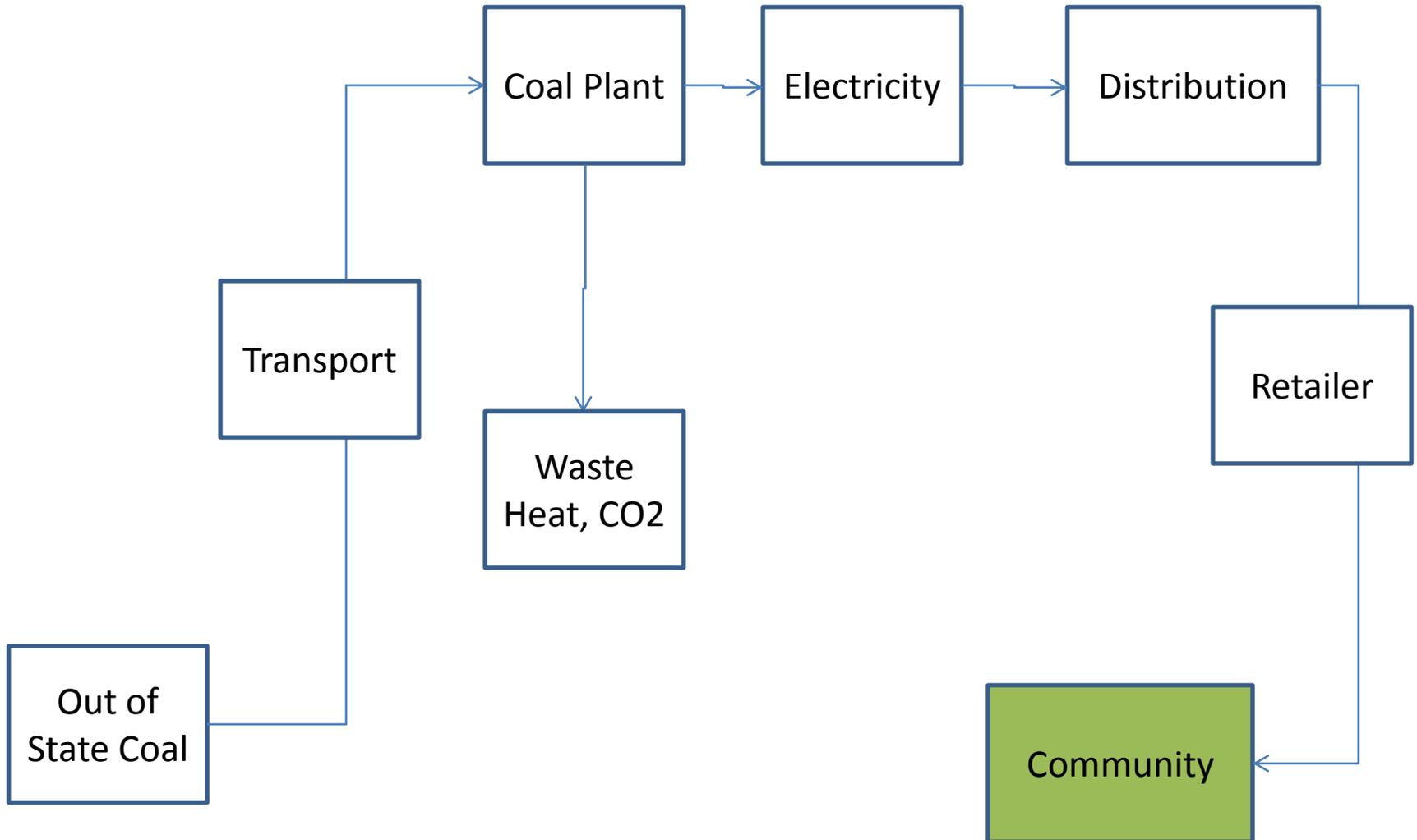
Variation: Pomace Recycle 2013



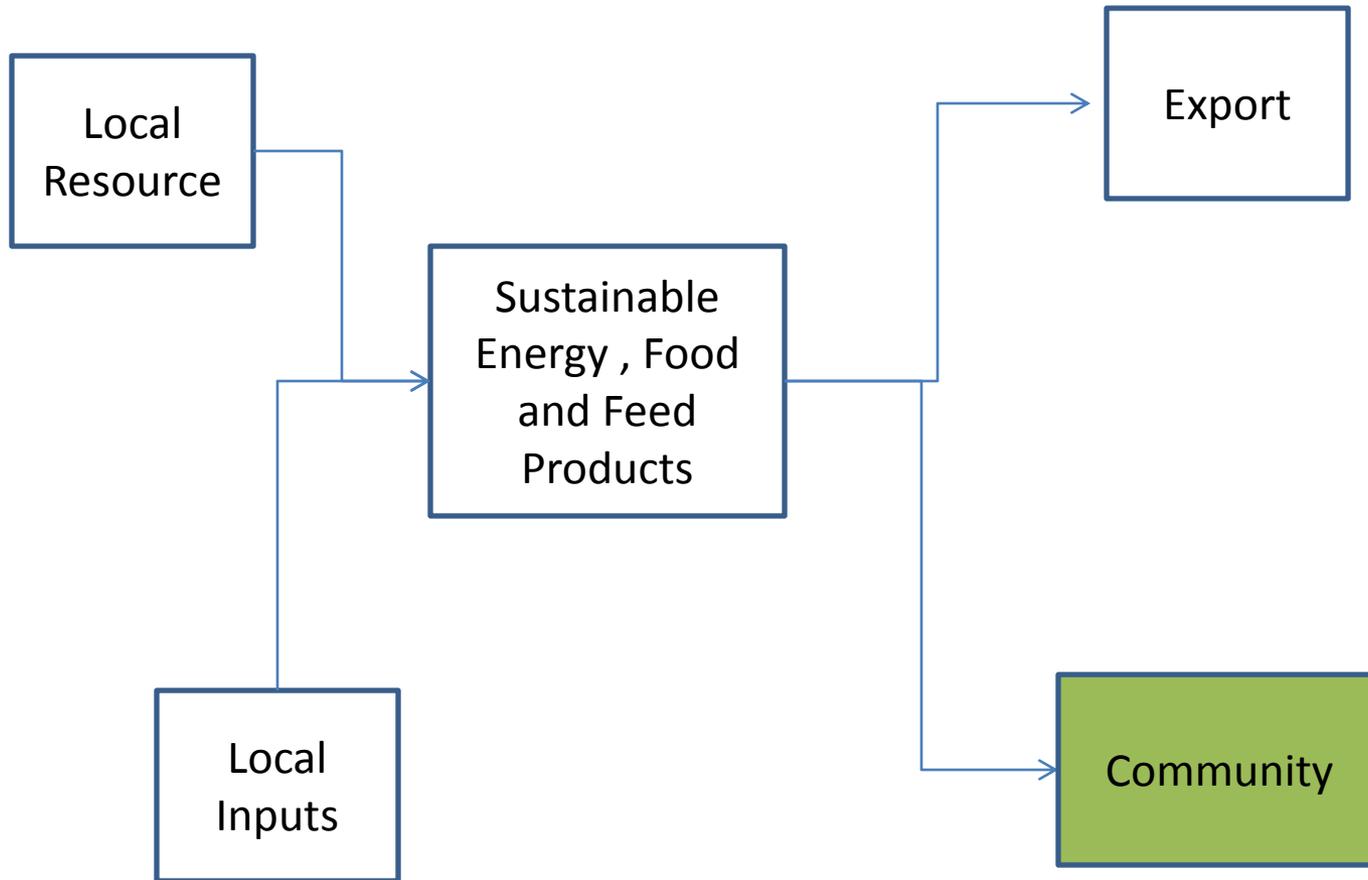
Review

- Community scale biofuels in Scribner survived 2008 while Beatrice was scrapped
- Variations can produce high value local products that can compete in the national marketplace
- Resilience and flexibility are trademarks of a successful community system.
- ‘If it tastes good, eat it’
- Biofuels international, Mar/Apr 2013 pp66-67 for additional information on Community Scale Oil Production

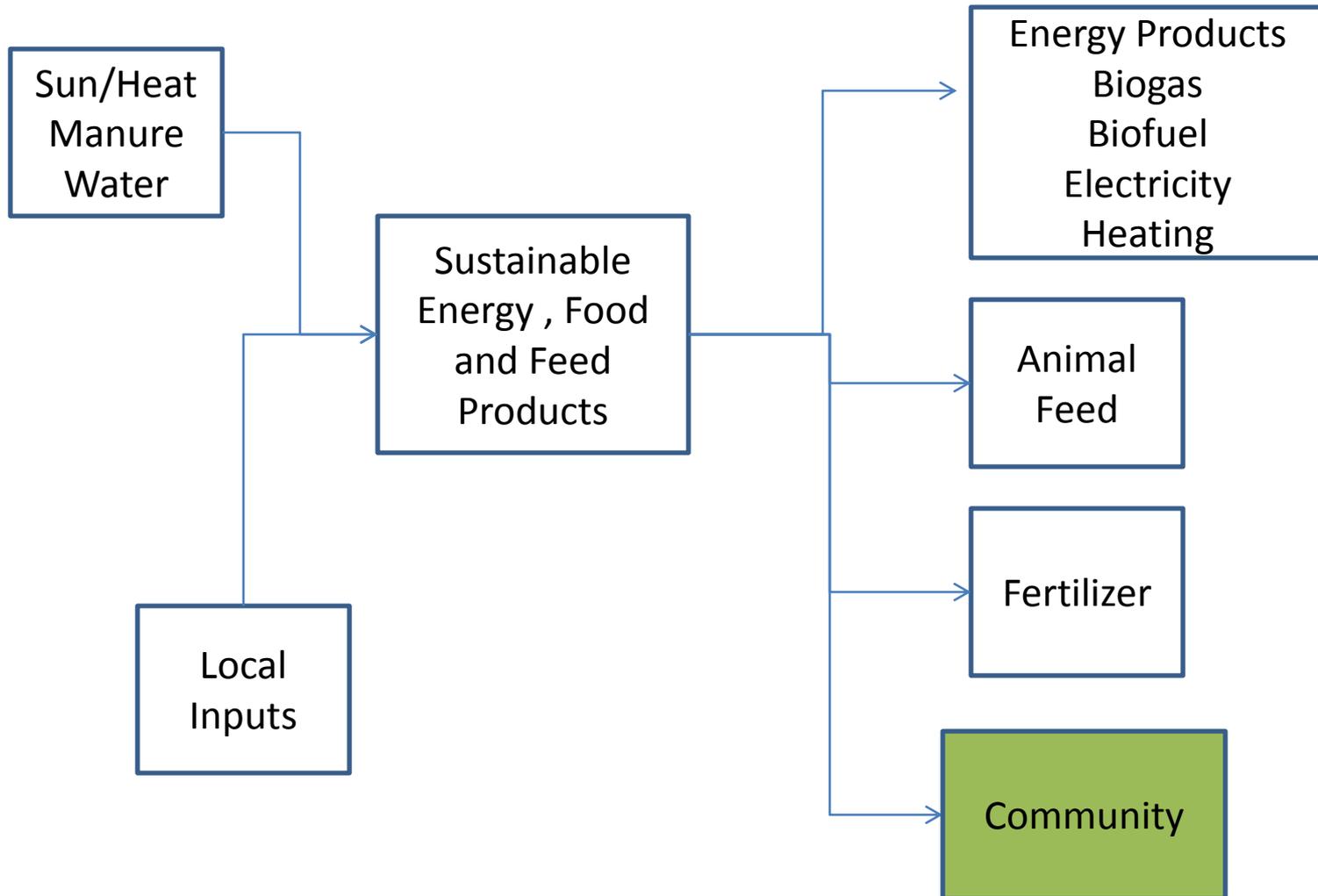
Examples: Public Power



Examples: Community Power



Examples: Aerobic/Anaerobic Loops



Conclusions

- Community Energy (CE) and net metering scale projects provide more jobs than utility scale
- CE often does not excite the status quo or energy moguls
- CE sustainably consumes and processes a local resource
- CE benefits outweigh 'economy of scale' considerations in most cases
- When properly designed, CE energy systems are flexible so they can adjust to market shifts
- CE must demonstrate local consumption, ownership and support
- Contact NRES for further information, WWW.NebraskaWind.com or waterdog@nerenew.com