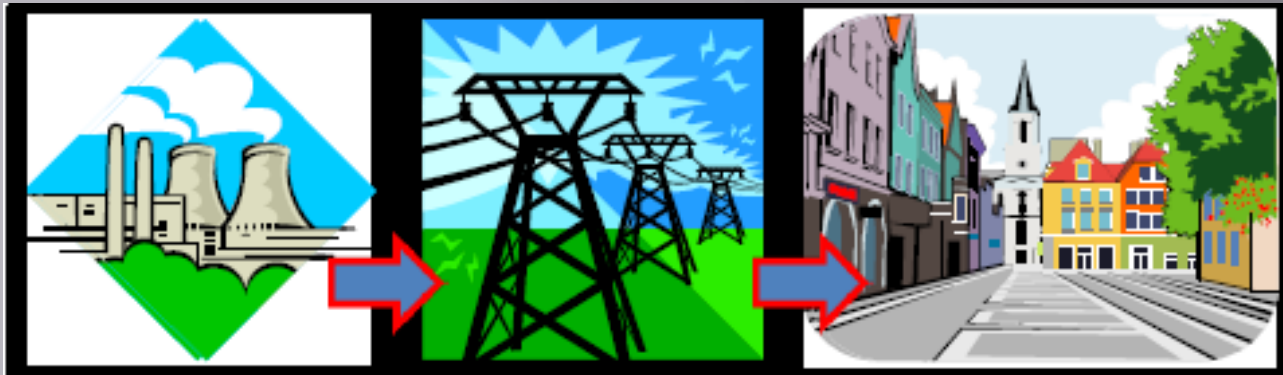


ENERGY INFRASTRUCTURE FINANCE: LOCAL DOLLARS FOR LOCAL ENERGY

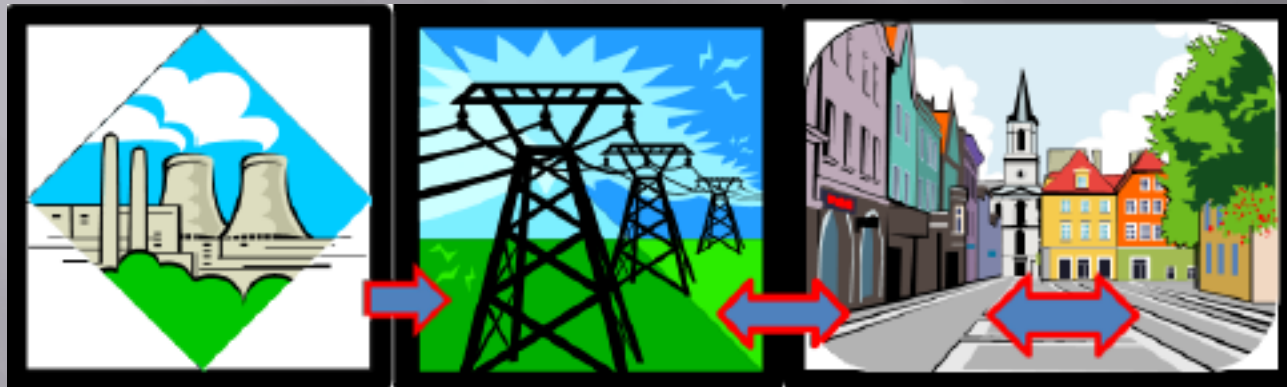
Gerry Braun and Stan Hazelroth
4th Annual Energy Policy Research Conference
San Francisco, California
September 4th, 2014

New pervasive supply technologies have grid infrastructure consequences.

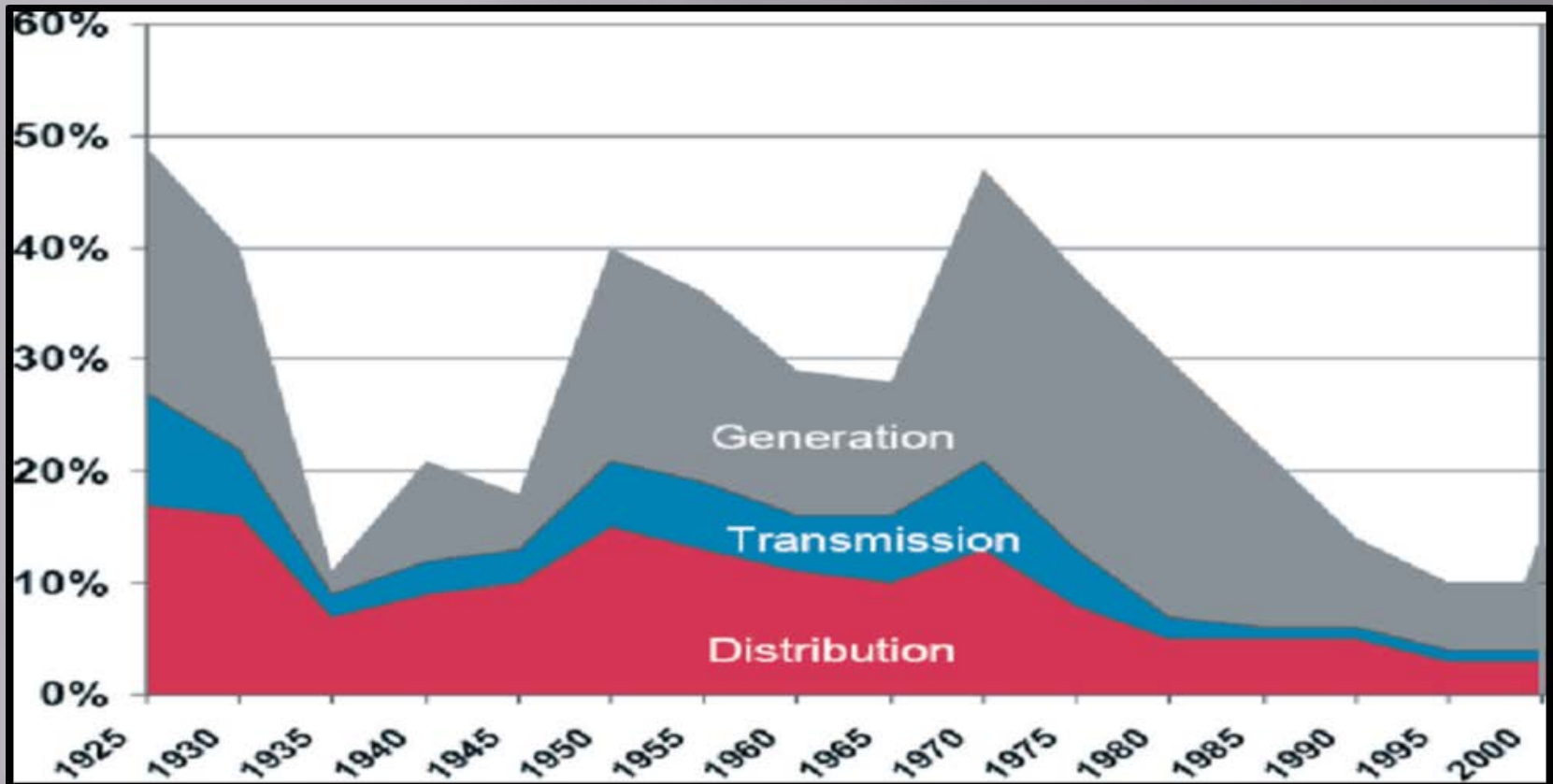
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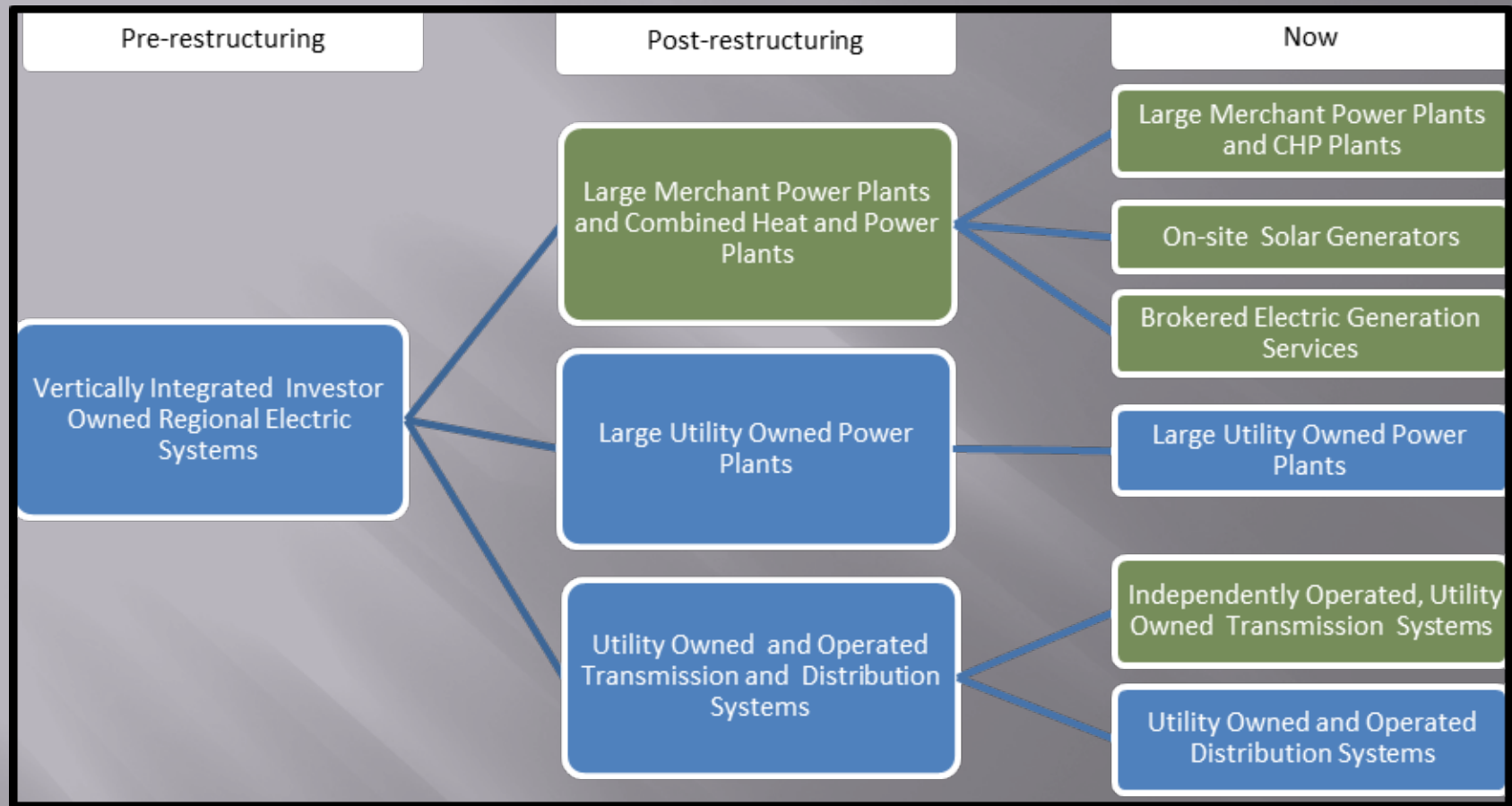
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Trillion dollar industry: from modern marvel to cash COW

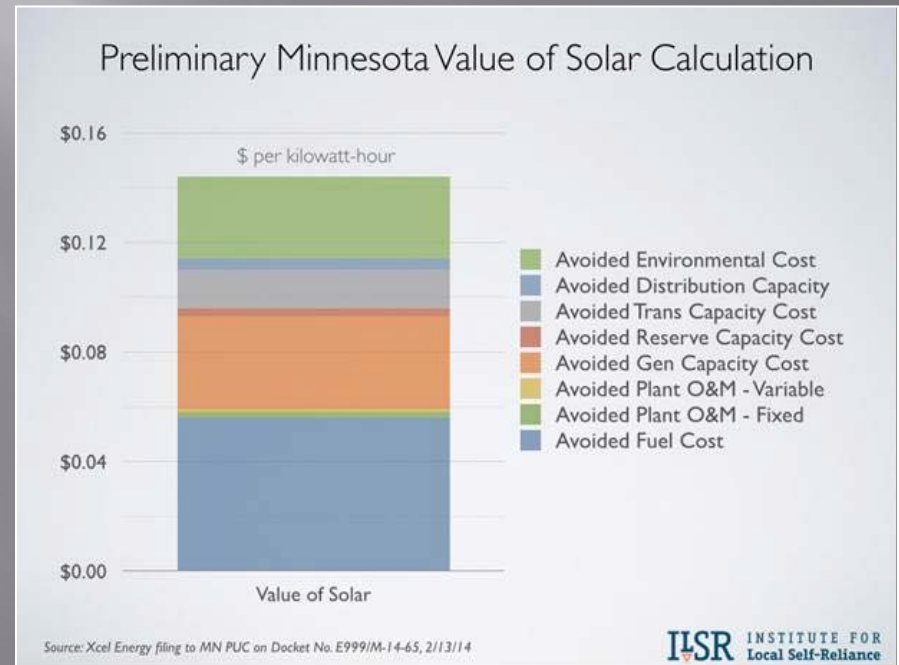


Restructured industry: from vertical integration to commoditization and delamination



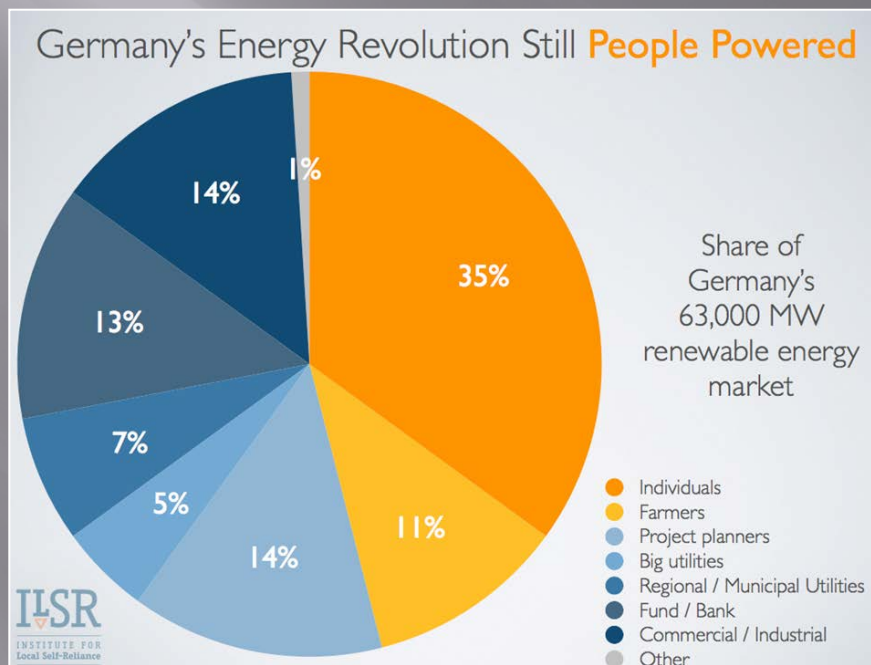
Net energy metering empowers people, literally.

Asset Description	Capital Source	Revenue Source
Small On-Site Electricity Generators (mostly Solar and CHP)	Diverse Project Owners, Including Residential and Commercial Property Owners, Local Banks, Investment Banks, "Crowd" Funds, Local Governments, and Large Corporations	Avoided Grid Electricity Costs



Local Dollars for Local Energy: An achievable outcome of integrated energy policy

Asset Description	Capital Source	Revenue Source
Feed-in Electricity Generation Projects	Diverse Project Owners, including Individuals, Commercial and Industrial Companies, Farmers, Development Companies, Regional and Municipal Utilities, Local Banks, Investment Banks and Funds	Feed-in Tariffs and Power Purchase Agreements Offered by Electric Utilities

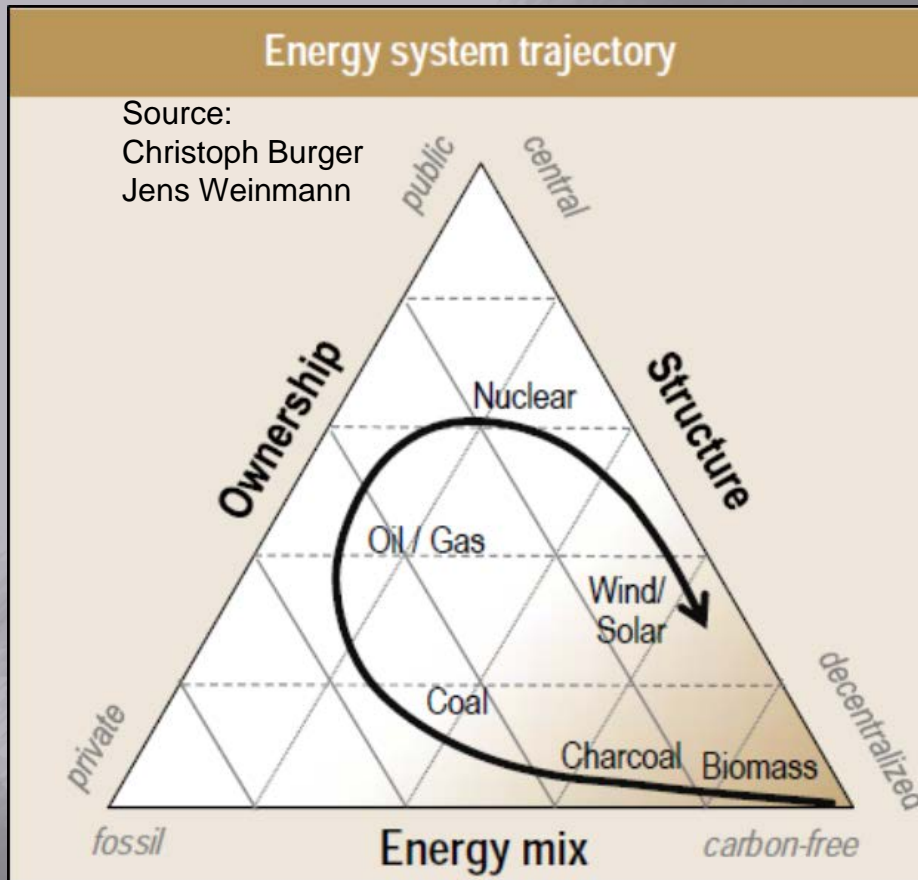


New power sector finance eco-systems are emerging and need policy support.

Connecting Dots: Integrated Analysis Topics

- ❑ Staged private/public financing of local electricity supply projects
- ❑ The role, ownership and financing of/by transformation agents, including:
 - New electricity service providers
 - Locally owned/operated infrastructure, e.g. micro-grids
 - Existing, financially stable public power agencies
- ❑ Rural/urban symbiosis, i.e. urban community purchase of clean electricity from projects owned and operated locally in rural areas.

A decentralized energy revolution is underway.



Transformative DE technologies are portable and pervasive. Local agents of their industries, including electric vehicle dealers, solar PV installers, IT service providers, foreshadow local energy and finance eco-systems that will require adaptation by 20th century energy monopolies.

Who will directly pay finance costs of local clean energy?



What is the role of new entities capable of mediating between regional and local grids to manage two way local power flows?

How do we identify/optimize decentralized energy implications for local economies?

What are the energy infrastructure costs attributable to taxes and finance, plus related trade-offs?

What policy support is needed to stabilize/reduce finance costs for decentralized electricity supply?

Thank you!
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