

Alternative Technology Origins, Present and Future



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FOE, ATA, AuSWEA

Felton Valley - The Future 1

Conflict over competing land uses

Large scale exploitation of resources

Most powerful wins - laws prioritise mining over other land uses

Centralised control – energy and political power

Wealth to a few – trickle down system

Local and Global scale pollution

Ecologically and Socially
Unsustainable



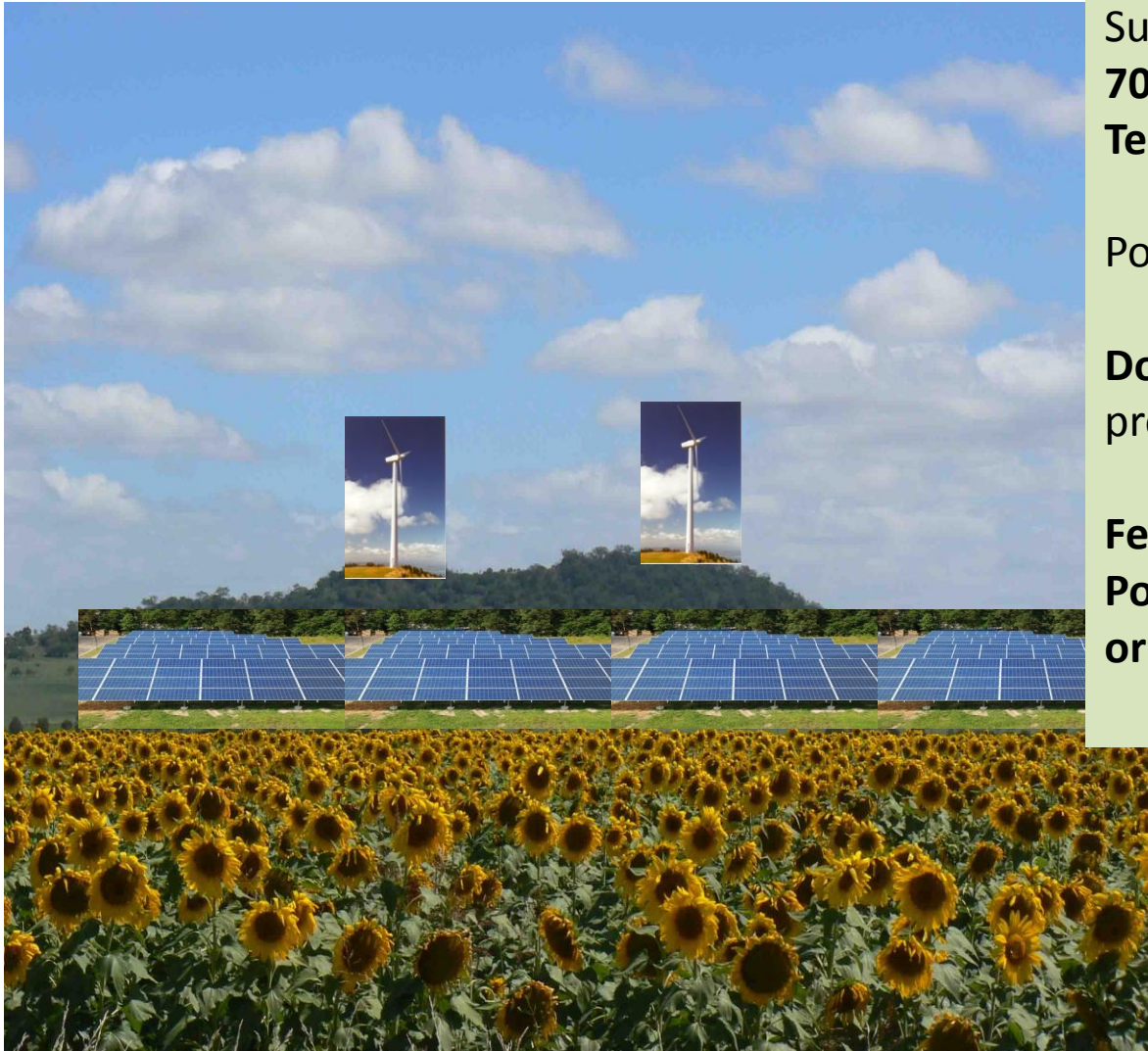
Felton Valley - The Future 2

Suitable for Application of about **700MegaWatts of Modular RE Technologies**

Potential for **Local Ownership**

Doesn't compete with food production

Feed 160,000 people
Power 160,000 average homes
or Drive 40,000 EVs 15,000km/yr



Origins – Defining AT

- “A phrase to describe human behaviour, tools and devices which work with nature rather than against it.”
- (Source: CAT Guide Book)
- Coined by Peter Harper, one of the founders of the [Centre for Alternative Technology, North Wales](#) (aka *The Quarry*), in [Undercurrents \(magazine\)](#) in the 1970s.
- Other terms – Soft Technology, Appropriate Technology



AT - More than just Radical Science and Technology

- Becomes a Social Movement
- Seeks social and political change
- Strongly influenced by Marxist and Anarchist philosophy
- Critique of Capitalist Industrial Society
- Focus Self-management and Cooperatives

- [See discussion by Peter Harper re “what is AT” at](#)
- <http://www.scribd.com/doc/9660238/Undercurrents-07-JulyAugust-1974#page=110>

Drivers of AT

- Environmental Concerns
- Global conflict – the Bomb
- Modern Industrial Societies incompatibility with ecological stability
- Nostalgia for past, the simple life
- Anti-consumerism

- Silent Spring
 - Blue Print for Survival
 - Limits to Growth
 - Small is Beautiful
- >>>
- FOE – a new and radical approach to environmentalism – wholistic – political, social, economic aspects

Defining AT

Food - Shelter

Tools - Materials

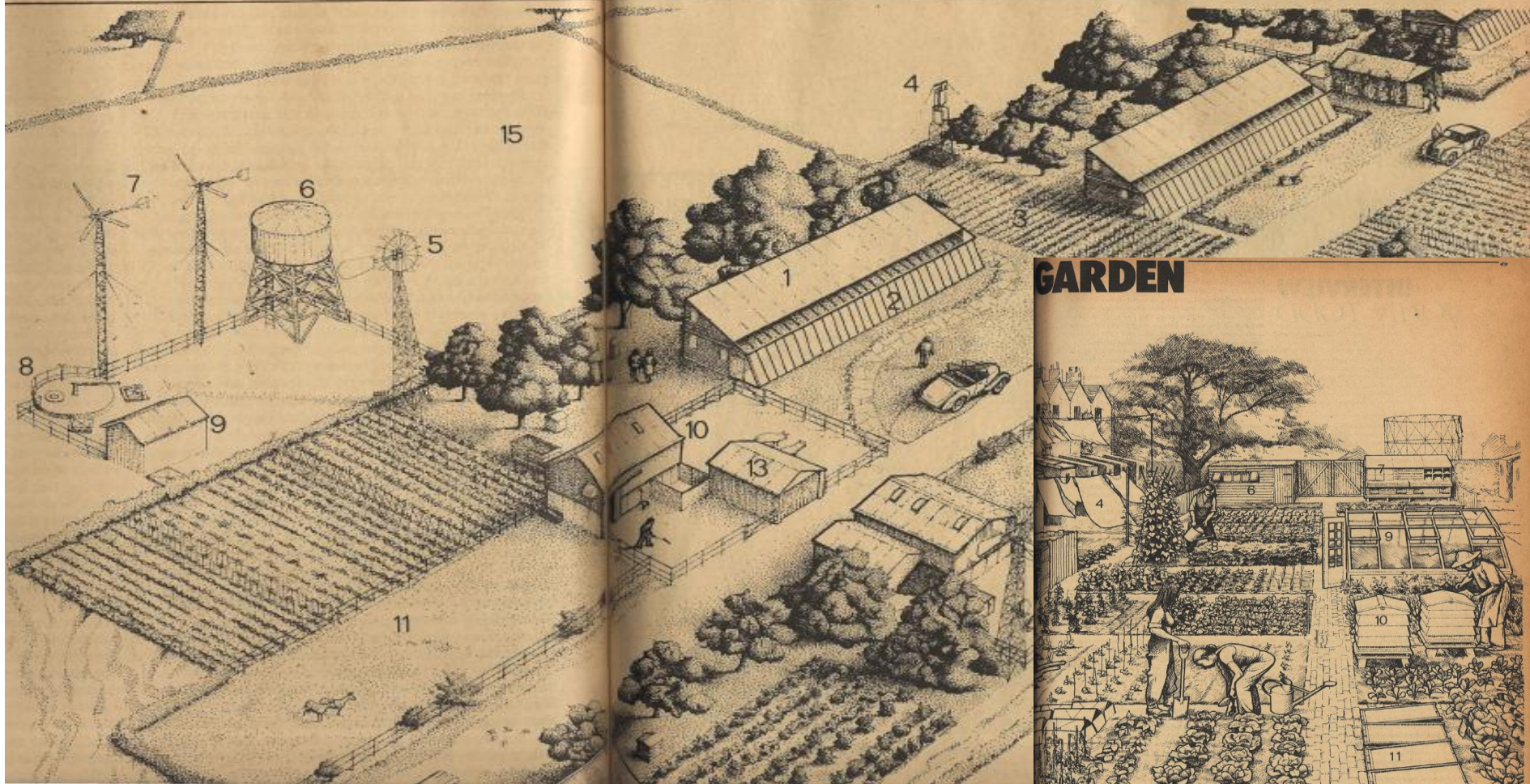
Energy - Communication

Autonomy - Community



Visions of the Future

3/AUTONOMOUS HOUSING ESTATE



Radical Tech - Visions of Future

1970s Visions

- Community workshops
- Community Gardens
- Autonomous Housing – Urban and Terrace
- Community Media Centre

Now

- “Men’s” sheds
- Community gardens
- Nth NSW Communities
- Eco-village Currumbin
- Crystal Waters
- Christie Walk
- Community Radio
- Web blogs

Eco villages Australia



Energy Efficiency: Residential

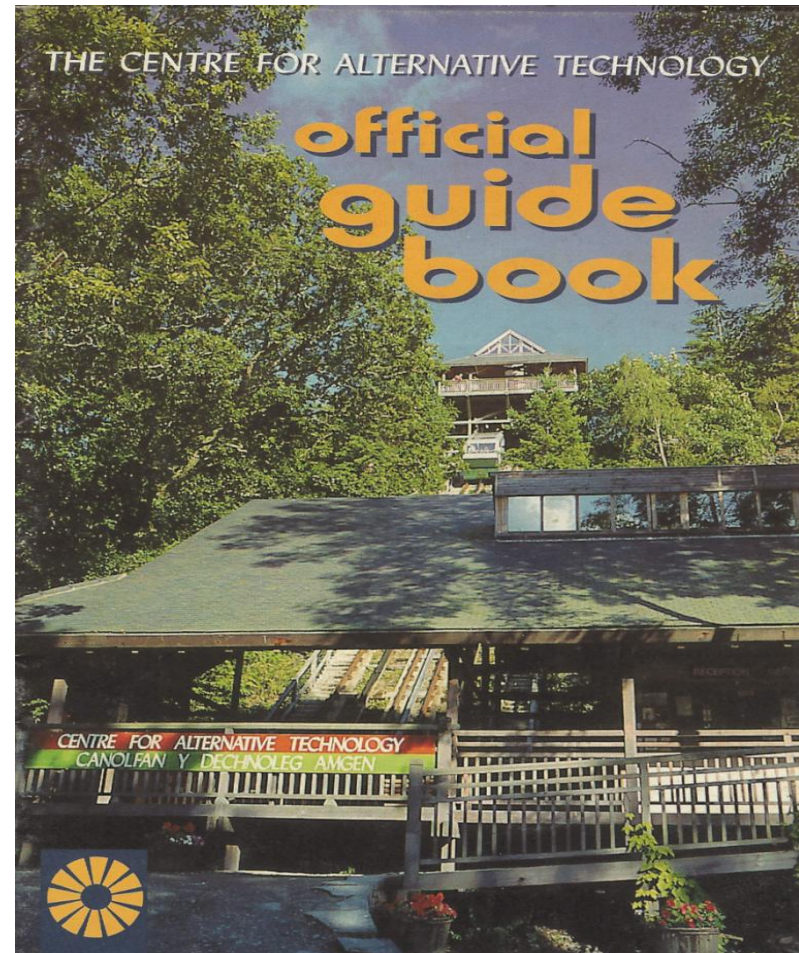
- **Solar efficient design in new buildings & retrofits**
- **Insulation of buildings**
- **Solar Water Heating**
- **Efficient lighting & appliances**
- **Efficient heating & cooling**
- **Efficient showers taps**



Christie Walk, Adelaide City

Centre of AT, Wales

- Concerned with the search for globally sustainable, whole and ecologically sound technologies and ways of life.
- **Technology** – clean and green
Energy & Food
Water/Water
Shelter/Transport
- **Social** –
cooperative/supportive
- **Political** – non-
authoritarian/consensus
decision making

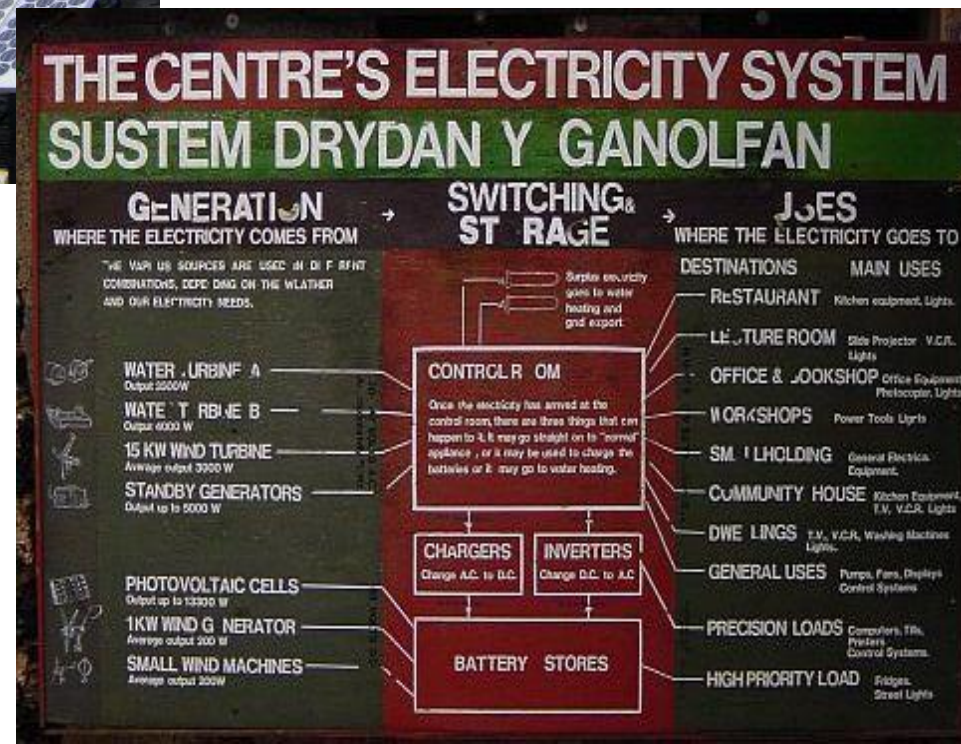


CAT Renewable Energy Systems



Photovoltaics

- Generation for on-site use
- Demonstration
- Education & Training



CAT – Management and Decision Making

IN the Beginning

- Ultra – democratic
- No formal structure
- Consensus decision making by anyone present at the time

MANAGING

“Trying to make EVERY decision collectively is impossible. The whole staff once spent an entire afternoon discussing where Ewan should put the Teachest spice rack.” - John Urry

30 yrs on

- Formal Structure
- Director / Departments
- Very flat wage structure
- All share basic tasks on rostered basis
- Elected management group
- Permanent staff have right of veto
- Consensus decision making

Australian Context



Groups in Australia:

- Alternative Tech. Assoc. (ATA)
- Australasian Wind Energy Association (AusWEA)
- Appropriate Tech. (APACE)
- Centre for Approp. Tech. (CAT – Alice Springs)

ATA and AusWEA

ATA - 1980

- A group of people interested in the use and promotion of AT.....technology that is ecologically sound....
- (Source: Soft Technology Mag. 1 – June 1980)
- Open membership

AusWEA - 1981

- Foster science and technology
- Encourage R&D
- Promote public education
- (Source: AGM 1980)
- Open membership

Contrasting with other Groups

ATA / AusWEA/Apace

- Formed 1980
- Grass-roots
- **Practical application**
- Decentralised – regional active groups
- Publication – Renew
- **Main focus** - public education

Solar Energy Society (SES)

- Formed in 1950's
- Part of International SES
- **Scientific /technical organisation**
- Publication – Solar Progress
- Annual Conference
- **Main focus** – science and technology R & D
- Little policy work in Aust. initially

Present role of ATA

Main streaming AT

- Formal structure with CEO and Board of Directors
- Allying with environmental and industry groups such as ACF and Clean Energy Council
- Education and practical application
- Active Policy Lobbying



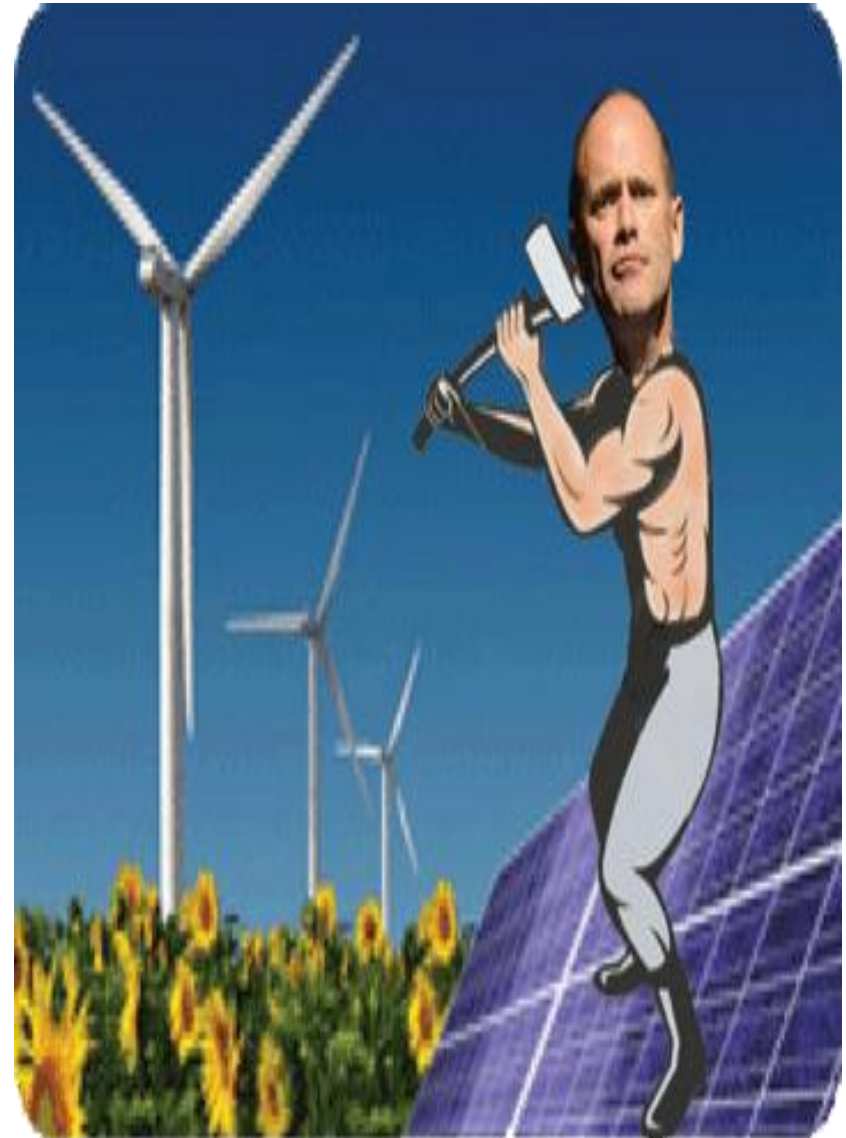
Political Activism and AT

- FOE – Six Degrees
- 100% Renewables
- Beyond Zero Emissions
- Aust. Solar Council as alternative to Clean Energy Council



AT under Attack - LNP Record to date

- **Closed down Office of Climate Change**
- Immediately **axed \$270 mill.** worthwhile **C –reduction programs** (includes \$75 mill to Solar Dawn 250MW STE)
- Office of Clean Energy still exists
- **PV Net FIT** - Export Rate **reduced** to 8c/kWh
- PV FIT **under review** – terms of reference exclude net tariff?
- **Made** public comment/**review** process time **shorter**
- **Solar Hot Water and Rain Water Tanks** not mandatory now



Future

- What are the political and social implications of a transition to an “alternative society” and
- What role might AT play in future in Australia, technically, socially and politically.

Large adoption of AT > mainstream

- **Is it still “Alternative”?**
- **Is it a measure of the success of the AT movement?**

Examples

- Composting toilets
- Rain water tanks
- Solar and Wind Power
- Recycling
- Alternative fuels – biodiesel, ethanol

- **Does it challenge existing power structures?**

Eg. community owned solar or wind farms

- **What level of consumption and technology can we sustain and what is a fair share of global resources?**

- $I = P \times A \times T$

- **How much control can we have over technology & its social / political impacts?**

Eg. large modern wind generator / Solar PV panels all are high tech – constructed by Multinational Co's

What Role of People Power?

Radical

- Direction Action – FOE

Mainstream

- 100% RE group
- Environmental groups
- Industry associations

- Limited no. of activists challenging status quo – face imprisonment
- Grassroots lobbying of the masses – people power
- Lobbying policy makers directly

What role the workers?

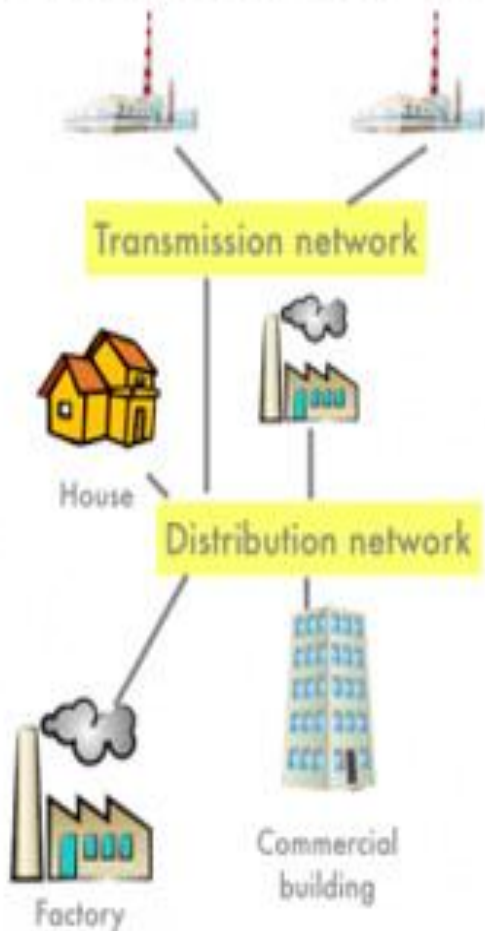
- Workers Co-ops – what size is appropriate
- Safe, clean work environments
- Fair Distribution of goods/services
- What products/services are essential and of true value to society.



Old VS New

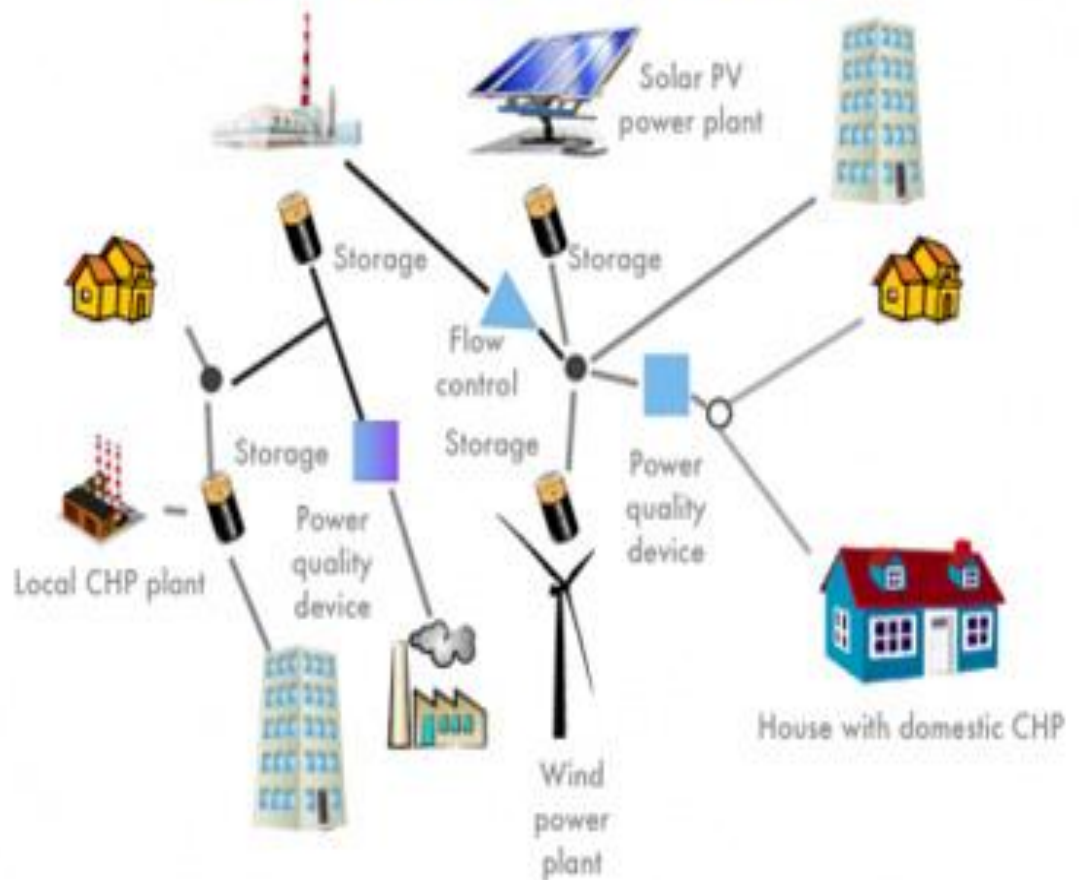
Yesterday

Centralized Power



Tomorrow

Clean, local power



The End

