

# Cold Fusion Public Policy for Realizing Its Benefits – And Dealing with its Secondary Impacts

## Summary of the Current Situation

- \*CF is real – the evidence is overwhelming
- \*Early rejection was premature
- \*Potential benefits are revolutionary
- \*Infinite, cheap, clean, flexible energy source

- \*Main barriers are reproducibility and adequate explanation
- \*Policy changes for realization are essential
- \*Evidence-based policymaking (EBP) optimal
- \*Short-term consequences disruptive

- \*Mitigation planning must be accomplished
- \*Technology Assessment (TA) is optimal
- \*Realization & mitigation policies must be coordinated
- \*The fate of humankind may depend on CF

Stanley Pons (Left) and Martin Fleischmann  
in about 1989



### 1. Origins and Status

- Fleischmann and Pons announcement
- 1989, University of Utah
- Debunked by mainstream science within a year
- Status as pariah science
- Research continued “at the margins”
- Sociology of science in the cold fusion case
- Kuhn: Structure of Scientific Revolutions

### 2. Potential CF Benefits

- Fuel is hydrogen (H, D) and certain metals (Pd, Ni)
- “Infinite” energy source
- Cheap (almost free)
- Clean: no effluents, emissions, radiation.
- Replacement of polluting sources (fossil fuels)
- Solution to Global Climate Change
- Flexible: local or dispersed deployment

### 3. Evidence for CF Reality

- Still needed: reproducibility and explanation
- Hundreds of reports of LENR success (“excess” heat – beyond chemical)
- Research in many countries: US, Japan, Italy, China, Russia, several others
- More than 500 active investigators and other interested parties
- Current support from billionaires (angel, investor)

### 4. Policies for CF Realization

- Science for society since World War II (Manhattan Project)
- Government role (public welfare benefit)
- Ethical necessity (public health; infant mortality)
- Evidence for policy based on experimental evidence
- Evidence-based policymaking, EBP

### 5. CF as Disruptive Technology

- Unintended consequences – but very predictable
- World economic order disruption
- Direct impacts: energy industry
- Indirect impacts: energy-dependent society sectors
- Christiansen: The Innovator’s Dilemma

### 6. Policies for Impact Mitigation

- Government role (market failure)
- Proactive preparation
- Impact identification and response development
- Technology Assessment (TA) methodology
- Incorporate knowledgeable persons (participatory)

### 7. CF Policy Coordination

- Timing of mitigation planning with progress toward realization
- Realization progress drives mitigation policies

### 8. Summary

- CF is real – potential new energy source
- Needs reproducibility, explanation
- Cheap, infinite, clean, flexible
- Reality combined with benefits mandate support for realization
- Policies for support based on evidence of reality (EBP)
- Disruptive technology, but impacts can be mitigated
- Methodology for mitigation readily available (TA)
- Policies for both realization and impact mitigation
- Support and mitigation policies must be coordinated
- Future of humankind is at stake

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